Using diverse sources of evidence for reconstructing the prehistory of musical exchanges in the Indian Ocean and their broader significance for cultural prehistory
TABLE OF CONTENTS

ACRONYMS .................................................................................................................. ii
1. Introduction ................................................................................................................ 1
2. Methodological issues ............................................................................................ 1
3. Case-studies, the valiha idi chord tube-zither and the zeze stick-zither .................. 3
4. Africa, Indonesia and controversy ......................................................................... 7
5. The influence of India and its iconographic representation ................................... 12
6. The African diaspora in the Indian Ocean ............................................................... 13
7. Conclusions ............................................................................................................. 16
References ................................................................................................................... 16
Websites ....................................................................................................................... 20

TABLES

Table 1. Category and value of types of evidence .......................................................... 2
Table 2. Maritime traditions and approximate chronology ........................................... 3
Table 3. Transfers of the stick-zither around the Indian Ocean ........................................ 7

PHOTOS

Photo 1. Valiha with tin-can resonator ........................................................................... 3
Photo 2. Seychellois mulumba trumpet ........................................................................... 4
Photo 3. Chest-resonated stick-zither at Borobudur ....................................................... 5
Photo 4. Chest-resonated stick-zither ........................................................................... 6
Photo 5. Lan Na stick-zither ......................................................................................... 6
Photo 6. Seychellois zez monochord zither ................................................................... 7
Photo 7. Thai ranāt ēk xylophone .................................................................................. 8
Photo 8. Trough-xylophone, Borobudur ....................................................................... 8
Photo 9. Xylophone players at Candi Panataran ............................................................ 8
Photo 10. Xylophone, gourd trumpet and harp from the manoscritto Araldi ....................... 11
Photo 11. Angolan gourd-resonated xylophone ............................................................ 11
Photo 12. Vertical concussion bells at Angkor .............................................................. 12
Photo 13. Vertical concussion bells at Borobudur ......................................................... 13
Photo 14. Conch, Angkor Wat ..................................................................................... 13

FIGURES

Figure 1. Holbein’s (1515) illustration of the xylophone ................................................. 7

MAPS

Map 1. Western distribution of the tube-zither ............................................................... 4
Map 2. Eastern distribution of the tube-zither ............................................................... 4
Map 3. Eastern distribution of the stick-zither ............................................................... 5
Map 4. Western distribution of the stick-zither ............................................................. 6
Map 5. Eastern distribution of the xylophone, trough and resonated key types .............. 9
Map 6. Western distribution of the frame-xylophone ...................................................... 10
Map 7. African diaspora communities in the Indian Ocean .......................................... 14
Although the Indian Ocean has long been recognised as a fertile zone for cultural exchange, reflecting both trade routes and colonisation, it is only now coming into prominence in terms of its significance for the prehistory of the continents around its rim. It is now accepted that economic plants, animals, diseases, trade goods, languages and cultural elements all moved around and across the Indian Ocean, often transforming the societies and environments into which they were introduced. The paper explores one specific aspect of cultural exchange, music and musical practice in the Indian Ocean. A series of case studies are used to assess the value and significance of different categories of evidence used for the reconstruction of musical prehistory and the chronostratigraphy that can be developed to interpret the results. The case studies include the history of two types of zither occurring both sides of the Indian Ocean which attest to the significance of geographical distributions of material culture. A related issue is the vexed question of the similarities of the xylophone in SE Asia and Africa, and role of morphology in resolving the historical direction of transfer. Iconography plays a much larger part in determining the history of South Asian influence on the music of SE Asia and some examples are presented of the use of SE Asian archaeological friezes in exploring this topic. Slavery and the African diaspora in the Indian Ocean have only recently been the subject of in-depth scholarly examination and the paper summarises current literature and begins the process of categorising the exchange of musical subcultures. This throws into focus an important aspect of maritime transfers in the Indian Ocean; the low profile of some of the great trading nations, such as the Sassanians and the Chinese, in terms of cultural influence, despite their importance in overall trade.
1. Introduction

Although the Indian Ocean has long been recognised as a fertile zone for cultural exchange, reflecting both trade routes and colonisation (Vincent 1807), it is only now coming into prominence in terms of its significance for the prehistory of the continents around its rim. It is now accepted that economic plants, animals, diseases, trade goods, languages and cultural elements all moved around and across the Indian Ocean, often transforming the societies and environments into which they were introduced (Blench 1994, 2010; Beaujard 2012).

Nonetheless, archaeological evidence for these transfers remains elusive; despite the clear evidence of the Malagasy language and genetics, no ceramics have ever been excavated that clearly demonstrate the Island SE Asia affinities of the population of Madagascar (Parker-Pearson et al. 2010). Maritime exchanges are of particular interest, since transfers cannot be the product of contiguous geography and imply a rather specific type of intentionality. Setting off across open water may have been driven by demographic expansion early in human history, but in more recent eras other motives take over; trade, religious proselytisation, military conquest, the quest for natural resources or slaves. All these activities have material correlates but only some leave their traces in the archaeological record. Developing an integrated prehistory to account for these lacunae is a task that has hardly begun.

The transfer of immaterial culture; religion, artistic forms, social praxis is often easy to see, but harder to account for. Reconstructing a narrative involves binding together very different classes of evidence and reaching conclusions with lower levels of certainty than can be expected from ‘scientific’ archaeology. Arguably though, these topics are of greater importance, since societies are not ceramics but nexuses of complex behaviour for which pottery may be a limited proxy. The more life that can be breathed into these reconstructions the richer will be our understanding of the past.

To illustrate this, the paper explores one specific aspect of cultural exchange, music and musical practice in the Indian Ocean. This is a vast topic and must be approached selectively. A series of case studies are used to assess the value and significance of different categories of evidence used for the reconstruction of musical prehistory and the chronostratigraphy that can be developed to interpret the results. The case studies include the history of two types of zither attested across the Indian Ocean and the significance of geographical distributions of material culture. A related issue is the vexed question of the similarities of the xylophone in SE Asia and Africa, and role of morphology in resolving the historical direction of transfer. Iconography plays a much larger part in determining the history of South Asian influence on the music of SE Asia and some examples are presented of the use of SE Asian friezes in exploring this topic. Slavery and the African diaspora in the Indian Ocean have only recently begun to stimulate in-depth scholarly examination and archaeology has yet to play much of a role in this topic, in marked contrast to the Atlantic slave trade. The paper summarises the recent literature and begins the process of categorising different musical subcultures. This throws into focus an important aspect of maritime transfers in the Indian Ocean; the low profile of some of the great trading nations, such as the Sassanians and the Chinese, in terms of cultural influence. This suggests the important role slavery may play; when the number of individuals transplanted across a maritime is sufficiently large, then cultural transfers may ‘stick’ and can survive when the visible slave-descended community has long since been absorbed.

2. Methodological issues

Material culture, both ethnographic and archaeological, was formerly considered a key element in the reconstruction of prehistoric exchange and mutual cultural influence. This was particularly associated with a North European tradition of ethnology and remains reflected in museum collections. However, the study of synchronic material culture has almost vanished, regrettably along with much of its subject matter. The

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A first version of the parts of this paper which relate to Madagascar were presented at a special workshop on Madagascar, held in the Musée Royale de l’Afrique Centrale, Tervuren in 2009. I would like to thank the organisers for inviting and for the audience discussion. Thanks also to Philippe Beaujard and Sander Adelaar for exchange of ideas over many years. Thanks also to the Kay Williamson Educational Foundation for supporting fieldwork. It is intended to complement a related review of the African mainland, in Blench (under review).
reason appears to be a lack of interest from anthropology, where the agenda has shifted markedly, but also the absence of interpretative frameworks. A scholar with a spectacular command of the literature, such as Sachs (1928) was unable to propose more than ‘layers’ which were supposed to link together cultures in some timeless fashion. The *Atlas Africanus* of Leo Frobenius (1921-1931) neatly combines detailed material culture mapping, still of value, with outré analysis which can be safely discarded. Lagercrantz (1950), who contributed so much to the mapping of African material culture, had almost nothing to say about the logic of his manic accumulation of information. In addition, there is undoubtedly the issue of the more extreme diffusion represented by Elliot Smith (1911) and William Perry (1923) whose globe-spanning pyramid builders did much to sabotage the credibility of more conventional ethnologists. Unfortunately, the Indian Ocean has not been immune from such speculation and where ethnic agendas drive the research this topic has been the subject of a certain amount of ill-informed speculation (e.g. Rashidi & Van Sertima 1987).

Ethnologists such as Bernard Ankermann, Kurt Sachs and Sture Lagercrantz expended much time in categorising cultural traits into layers, complexes of traits supposedly found together. Thus a supposed ‘Indonesian’ layer whose influence could be detected in Africa and a Eurasian ‘Steppe-hunting’ layer responsible for much to the culture of North Eurasia and North America. Similarly, a supposed ‘Oceanic’ complex which may or may not have influenced South American culture (e.g. Nordenskiöld 1919-1931; Sachs 1928; Lagercrantz 1950). These debates now seem largely pointless because they were not founded on a significant awareness of either the processes or chronology of human settlement. Nonetheless, archaeologists have slowly begun to recognise the value that can be retained from such material culture studies. Rich accounts such as Speiser (1923) describing and mapping the material culture of Vanuatu has been republished in English, to make this study available again, and not for social anthropologists. New mathematical methods, notably including Bayesian network analysis, have recently been applied to material culture, usually in complete ignorance of their predecessors. However, any single-channel analytic methods are probably of less value than applying the whole arsenal of techniques now available.

Table 1 shows the categories that can be integrated in a study of the musical prehistory of the Indian Ocean and the relative abundance of evidence;

<table>
<thead>
<tr>
<th>Category of evidence</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Archaeology</td>
<td>Significant only when linked to iconography</td>
</tr>
<tr>
<td>Iconography</td>
<td>Highly significant in India and SE Asia</td>
</tr>
<tr>
<td>Synchronic ethnography</td>
<td>Of major importance in all regions</td>
</tr>
<tr>
<td>Artefact collections</td>
<td>Valuable but to be used with care</td>
</tr>
<tr>
<td>Written texts</td>
<td>Of some value in India and SE Asia</td>
</tr>
</tbody>
</table>

One of the methodological issues in material culture studies is the relevance of innovation. If two very similar artefacts are recorded in different geographic regions, then what is the likelihood that they are simply invented repeatedly as opposed to the two occurrences being connected? Our understanding of this is strongly dictated by fashion. Earlier writers tended to see much of the culture of Sub-Saharan Africa as flowing outwards from Egypt. The reaction to this was denying that anything came from Egypt and the two regions were effectively unconnected. Both positions are certainly extreme; there were clearly cultural flows between the two areas which can be picked apart by careful analysis. In another example, the hypotheses of Thor Heyerdahl (1952) linking Polynesia with the west coast of South America were much mocked in their time, in part because of ‘bold adventurer’ method of demonstration. Nonetheless, botanical studies now clearly show the sweet potato and the gourd did indeed reach Eastern Polynesia in pre-Portuguese times (Green 2000; Montenegro et al. 2007) and the whole issue remains up for discussion (e.g. Anderson et al. 2007). This topic has a long history in American cultural anthropology and Steward (1929) first attempted to construct an algorithm of the likelihood of innovation and Rands & Riley (1958) who consider the issue of discontinuous distribution.

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2 The alternate title of this, Perry’s magnum opus, *The Children of the Sun: A Study of the Egyptian Settlement of the Pacific*, perhaps tells us as much as we need to know about the credibility of his theories.
Biological transfers are largely indisputable; we can know with some certainty that bananas, taro, water-yam, sweet potato were not domesticated within Africa and so must have been brought through human agency. Musical instruments have some of the same characteristics, partly because they are an arbitrary form dictated by culture and not subject to the evolutionary constraints dictated by practical requirements. They are, moreover, a highly conservative category of material culture as they are not constrained by functionality in the same way as, for example, fish-traps. To this extent, they resemble zoogeography as a tool for analysis of prehistory. Musical instruments diffusing from one culture to another often retain names and performance styles of the source culture. Geographically bounded regions, such as islands, are often easier to unpick than a contiguous mainland area. Hence the importance of island biogeography for zoologists. As a consequence, musical cultures can create a chronostratigraphic map of culture exchanges. An island such as Madagascar provides a palimpsest of the maritime nations who have influenced its cultural development. Musical instruments introduced from Island SE Asia (ISEA), India, the African mainland (including apparently pre-Bantu forager populations), Arabia and early Europe all remain in the ethnographic record.

To establish the background to Indian Ocean transfers, it is useful to set up a very approximate history of pathways. Table 2 is a list of the most well-recognised maritime traditions and their estimated starting date. Some of these are more controversial than others, and not all have had any recognised impact on musical traditions. It is not the intention to lay out the arguments for all of these, but rather to give sense of the chronological stratigraphy in relation to different transoceanic traditions.

<table>
<thead>
<tr>
<th>Maritime tradition</th>
<th>Chronology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial settlement of Indian Ocean rim</td>
<td>Time disputed but perhaps from 125 kya</td>
</tr>
<tr>
<td>Early Assyrian/ Egyptian voyages</td>
<td>2000 BC onwards</td>
</tr>
<tr>
<td>Navigation from South Asia</td>
<td>2000 BC onwards?</td>
</tr>
<tr>
<td>Navigation from ISEA</td>
<td>Within ISEA from 4000 BP, but in Indian Ocean from ?2200 BP onwards</td>
</tr>
<tr>
<td>Graeco-Roman voyages</td>
<td>From 100 BC?</td>
</tr>
<tr>
<td>China</td>
<td>From 200 AD</td>
</tr>
<tr>
<td>Sassanian voyages</td>
<td>From 200 AD</td>
</tr>
<tr>
<td>Arabian voyages</td>
<td>From 400 AD</td>
</tr>
<tr>
<td>Swahili coastal trade</td>
<td>From 700 AD</td>
</tr>
<tr>
<td>European voyages</td>
<td>From 1500 AD</td>
</tr>
</tbody>
</table>

A table such as this simplifies many uncertainties; some of these dates are poorly documented and little more than guesswork. Some important transfers took place in the absence of any clear evidence as to their context, for example, the early movement of key African crops to India (Blench 2003).

3. Case-studies, the *valiha* idiochord tube-zither and the *zeze* stick-zither

Two types of zithers are found with a pan-Indian Ocean distribution (Blench 1984). One of the most distinctive musical instruments in the Indian Ocean region is the *valiha*, an idiochord tube-zither (Domenichini 1984; Razafindrakoto-Montoya 1997, 2006). Such zithers are typically made from a single internode of a broad-diameter bamboo, and the strings are formed from the raised epidermis of the bamboo. Small bridges at either end keep the strings taut and also act to tune them.
Modern instruments have wire strings and even tuning pegs to make for increased durability, but these are recent innovations. The general principle is known widely across SE Asia, although more commonly involving instruments made from a half-tube of bamboo laid horizontally on a surface and struck with light beaters, as in Borneo and Sumatra. The player holds the instrument upright or horizontally outwards from the body, sometimes perched on a resonator, and plays it with two thumbs (Photo 1). The *valiha* is the national instrument of Madagascar, although the tubular form is only found in the highlands area and is strongly associated with the Merina. The traveller Peter Mundy (1919) first described the instrument which he saw in Madagascar in 1638. Instruments with a similar pedigree are also found in parts of island SE Asia, including Sulawesi, Maluku and Timor, but not Borneo (Sachs 1928; Kaudern 1927). Map 1 and Map 2 show the distribution of the hand-held tube-zither at the western and eastern ends of the Indian Ocean. This instrument is unique to these two regions and does not occur elsewhere in the world.

The classic explanation of the origin of the name *valiha* is Sanskrit *vādyā* (वाद्य) a general term for a musical instrument (Sachs 1938). Adelaar (ined.) has proposed *balikan*, an Iban term for a stringed instrument, apparently an outmoded type of lute, in Borneo. Neither explanation is wholly convincing, as the instrument itself must originate in Sulawesi and islands further east, despite the general origin of the Malagasy in Borneo. This underlines the multi-ethnic character of the early trans-Indian Ocean migrations which populated Madagascar (Beaujard 2003). Although the tube-zither does not survive on the East African mainland, it must have been part of the instrumentarium of enslaved populations at one time, since it was carried to both the Comores (Ottenheimer 1970) and the Seychelles (Koechlin 2002).

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3 Sachs (1927) also lists Guyana, the Malay Peninsula and the Balkans [!] but checking back to his references, the instruments are structurally quite different.
underwent a remarkable transformation in the Seychelles where it survives as the *mulumba*, one of the disappearing *anciens instruments*, along with the chest-bow, still played by populations of African origin. Despite retaining the external appearance of a tube-zither, the *mulumba* is now used as an end-blown horn with simultaneously scraped strings (Photo 2). While retaining the organological character of the original Austronesian tube-zither, the players have functionally re-interpreted it, presumably through lack of contact with the performance tradition.

Another instrument which also persists in the Seychelles in transposed form is the stick-zither. A stick-zither is a flat bar with a fastening post at one end, with one or several strings stretched along its length. The string(s) pass along the top of the bar, attached to a hemispherical gourd or other resonator held against the player’s chest. The bar may have projections beneath the strings so that as they are strummed the projections are used like frets to alter the pitch of the string (Jones 1971: 163). Alternatively, the player can stop the string with the pad of the fingers to bring out various harmonics.

**Map 3. Eastern distribution of the stick-zither**

The stick-zither is only found around the rim of the Indian Ocean and its complex history illuminates the layers of maritime cultural transfers characteristic of this region. Map 3 shows the eastern distribution of the stick-zither.
The stick-zither is first represented in India in the 7th century on the temple at Māmallapuram (Marcel-Dubois 1941:72; Kaufmann 1981: 180). In South Asia, it rapidly develops into instruments more closely resembling the modern vina with two gourd resonators and more strings (Coomaraswamy 1926, 1931; Chonpairot 1981; Wrazen 1986). However, simpler types survive as folk instruments, for example among the Sora (Bhattacharya 1999: 48). In this form it was carried to SE Asia via Indian voyages which may begin as early as the 2nd century BC. The first clear evidence of its presence in ISEA is at Borobudur in Java (800-850 AD) where it is shown several times on the external friezes (Photo 3). For MSEA, the stick-zither is first shown on the Bayon within the Angkor complex (ca. 1050 AD) several times (Photo 4). Known as say diev or khse muoy, it has virtually died out in modern Cambodia. However, it is still common in Vietnam and has been revived in Lan Na, modern Chiang Mai, in Thailand, where it was once a prestigious instrument (Photo 5). The ISEA distribution was first mapped by Kaudern (1927) for Sulawesi, but it occurs in Timor as well, although, like the plucked tube-zither, it is absent in Borneo.

The stick-zither was subsequently carried both to Madagascar and the East African coast from ISEA. Unlike the tube-zither, the stick-zither is widespread along the East African coast. Although the stick-zither is also recorded inland towards the DRC, this expansion was apparently a consequence of the slave trade (Laurenty 1960; De Hen 1960). The stick-zither presumably spread among coastal populations in the period when a mixed Bantu/Austronesian trading community was settled on the coast (Blench 2010). Map 4 shows the western distribution of the tube-zither.

The origin of the Swahili name jeje is uncertain, but we can safely say that it is not a loan from Ancient Egyptian dede, as suggested by Sachs (1938:xx). The prevalence of this instrument in the coastal communities among populations who were later enslaved has also led to its appearance in the Seychelles in reconfigured form (Koechlin 2002).
Photo 6 shows a performance on the zez (cognate with jeje) which has somehow been hybridised with the chest-bow, also played on the coast. The structure and performance style is still that of the stick-zither but the appearance has been made to conform to the chest-bow. Précourt et al. (2010) illustrate the three-stringed ndzendze of Mayotte which maintains a highly conservative SE Asian appearance. The Malagasy name (lokanga voatavo) appears to be a later calque comparing it to the fiddle, suggesting it may have been introduced from the East African coast, rather than the other way around. Table 3 summarises the transfers and contexts of the stick-zither as reflected in the broader history of the region.

### Table 3. Transfers of the stick-zither around the Indian Ocean

<table>
<thead>
<tr>
<th>Event</th>
<th>Region/Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develops in India at unknown date, both as a folk and later a classical instrument. First represented 7th century AD</td>
<td></td>
</tr>
<tr>
<td>Transfer to MSEA as part of formation of Indianised states</td>
<td>? Carried to ISEA at the same time or later</td>
</tr>
<tr>
<td>Transfer to East Africa with the ‘raiding and trading’ period, 6-9th centuries</td>
<td>Transfer to Madagascar as part of Swahili coastal trading, 8th century onwards</td>
</tr>
<tr>
<td>Transfer to Indian Ocean islands following European slave trade, 16th century onwards</td>
<td>Transfer to interior Africa via the slave caravan routes, 18th century onwards</td>
</tr>
</tbody>
</table>

### 4. Africa, Indonesia and controversy

One of the long-running controversies in the history of Indian Ocean transfers is the vexed question of xylophones and other musical influence as exemplars of Austronesian influence in Africa (Hornell 1934; Hutton 1936). Xylophones consist of wooden plaques of different lengths, arranged in order of size, and often supported in a frame and ins some examples, resonators under individual keys. As long ago as 1936, the musicologist Jaap Kunst (1936) posited a connection between the musical cultures of Indonesia and ‘Central Africa’, based not only on instruments, but on the similarity of musical intervals, in particular the equiheptatonic scale. This argument was expanded by A.M. Jones (1964, 1971) who moved on from xylophones to a broader argument connecting even West Africa and Indonesia. Heins (1966) and Blench (1982) evaluated Jones’ arguments and found them highly misleading, sometimes including a wilful misrepresentation of the evidence. Despite this, Jones’ arguments live on in an even more extreme form, including claims that Indonesians were responsible for the construction of Great Zimbabwe (Dick-Read 2005).
This is alternately amusing and annoying, but it should not be allowed to obscure the fact that, as the examples above illustrate, cultural and material transfers across the Indian Ocean were perfectly real. The example of the xylophone can be taken as a disputed case study. Prior to European colonisation, xylophones were known only from SE Asia and Africa. Although the marimba may seem highly characteristic of South-Central America, its introduction reflects the slave trade (Chenoweth 1964; Armas Lara 1970), while the African origins of the European xylophone, *Strohfidel*, first noted in Europe in 1511 (Schlick 1511) and represented by Holbein in an engraving dated 1515 are still more evident (Figure 1).

Xylophones, and their cousins, the metallophones, are highly prominent in SE Asian culture today and indeed are taken as almost iconic of the region (Blench 2006). They now occur in Cambodia, Laos, Burma, Thailand, Malaysia, Indonesia and South China (Collaer 1992; Sam-Ang et al. 1998; Miller & Chonpairot 1981, 1994; Zhang Xingrong 1990, plate 22). In certain regions, notably Java, the xylophone evolved into a highly elaborate ensemble instrument (Kunst 1968). Kunst (1973, II:416-7) shows an image of a wooden xylophone at Borobudur (Photo 8) and what is perhaps a *saron*, or metallophone, both being played singly.

Most intriguing is his photograph of the paired xylophones at Candi Panataran (ca. 1375). The players are playing with forked sticks similar to those used in East Africa, and the arrangement of paired instruments facing one another is also a typical African practice. Even more striking, the players also have what can only be described as ‘big hair’, large bouffant hair arrangements (Photo 9). Kunst makes no comment on this, but it seems worth considering that these are representations of African performers teaching their Javanese counterparts. In the intervening period between Borobudur and the first European descriptions, metallophones developed, and the large ensembles with the arrays of tuned gongs were formed. Although noted as early as the sixteenth century, the *gamelan* first made an impact on...
European culture when a Javanese gamelan played at the Paris Exhibitions of 1889 and 1890 and was praised by Debussy⁴ (Harpole 1986).

The evidence for mainland SE Asia has nothing like the same time-depth. Neither the Champa friezes nor the Bayon show xylophones. Morton (1976: xx and frontispiece) has researched representations of the xylophone in Thailand and notes that the earliest is an image of the wooden-keyed xylophone, ranāt ēk, in a manuscript dated ca. 1730 showing a pi phat ensemble. Photo 7 shows a typical ranāt ēk. Similar xylophones are found in Cambodia and Laos and at the court of Trengganu in Malaysia. The Burmese xylophone, the pat-talā⁵, is a 24-key trough-xylophone with suspended keys first described by Alexander Hamilton (1727:427). A SE Asian trough-xylophone⁶, the orgue de Barbarie, apparently came into the possession of the composer Rameau, and he discussed its tuning in his Guide de la musique pratique (1760). The xylophone has been recorded from India, known under the names kashtha tarang, bastran and taranga, all apparently trough-resonated instruments on the Burmese model (Sachs 1915). The xylophone was played in China as part of the court ensembles of the Qing dynasty (1644-1911) but was regarded as a ‘foreign’, i.e. Burmese instrument (Thrasher 2000). This instrument, under the name mokkin, was introduced into Japan in the Edo period as part of the minshingaku, ‘Ming and Qing dynasty music’, and is still heard in the kabuki geza ensemble (Ferranti 2000:53). Map 5 shows the approximate pre-European SE Asian distribution of the xylophone. The larger blue area shows all frame-xylophones, the inner red area the distribution of xylophones with individually resonated keys. A map such as this inevitably smoothes out subtle ethnic mosaics; for example, on a large island such as Sumatra, not all populations play the xylophone. However, it is important to suggest the broad pattern of distribution.

Map 5. Eastern distribution of the xylophone, trough and resonated key types

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⁴ 'Javanese music obeys laws of counterpoint which make Palestrina seem like child’s play.’ Quoted in Smith (1977)
⁵ Etymologically a Mon word meaning drum + coffin (Miller & Chonpairoit 1994:59).
⁶ To judge by the illustration in La Borde (1780)
On the basis of existing evidence, it seems most likely that Java was the nucleus of the evolution of the frame-xylophone and that it spread northeast to the Southern Philippines, northwest to Sumatra and thence to mainland SE Asia, to Cambodia, Thailand and Myanmar.

Frame-xylophones in Africa are a similarly iconic instrument and occur from Senegal to Southern Mozambique. The distinctive features of African frame-xylophones are the individual gourd-resonators under each key, and the ‘buzzing membrane’ a patch of spider-web placed across a hole in the gourd to give the struck key a distinctive resonance. These are found across the range of the instrument, except for the small area in NE Nigeria where cowhorns replace gourds as resonators. Map 6 shows the pre-European African distribution of the frame-xylophone.

Map 6. Western distribution of the frame-xylophone

There no archaeological evidence for the presence of the xylophone and representations by travellers only go back to the seventeenth century. The xylophone is mentioned in the Sundiata epic of the Mandinka people, which theoretically describes events in the thirteenth century, but there is no way of verifying the text has not been updated as part of the process of oral tradition (Conrad 2004). Photo 10 shows a xylophone pictured in the manoscritto Araldi (about 1670) from near the mouth of the River Congo and Northern Angola, and, given the representational conventions of the period, generally reliable (for details of the manuscript and its recovery see Pistone 1969). Photo 11 shows performers on a rather larger instrument in central Angola, photographed in the 1930s.

The distribution of the African xylophone has been studied by Boone (1936), Jones (1971), Anderson (1967, 2001). Without entering technical discussions, it is clear that instruments everywhere in the continent share numerous constructional features, related tuning systems, and playing techniques, including the ‘interlocking’ melodies more generally characteristic of African music.
Is the reverse scenario possible, the xylophone spreading eastwards across the Indian Ocean? The difficulties with arise mainly from prejudices about ‘high culture’ rather than historical credibility. Attributing an African origin to the complex orchestras of pitched percussion instruments so much admired by Western composers runs counter to a series of unspoken assumptions. It has been virtually taken for granted that the African occurrences reflected a ‘high-culture/low-culture’ transfer although there was no concrete evidence for this. In reality there is quite a strong case that the transfer was in the opposite direction.

There is no direct evidence for the antiquity of the African xylophone, but a telling piece of evidence discussed in Blench (1982) is the presence in Africa of all the stages of the evolution of the xylophone, from simple struck bars, to resonated bars, leg-xylophones, pit-xylophones and frame-xylophones. This suggests a long history in the continent, and the evolution of the sophisticated instruments found today spread over millennia. Given our understanding of the chronology of ISEA contact with Africa, the idea that the xylophone ‘spread’ from SE Asia is almost impossible to model historically. As the patterns exhibited by the tube- and stick-zithers show, transfers from SE Asia seem to be confined to a restricted area of the East Coast.

As for a transfer in the opposite direction, as in a detective novel, there must be motive and opportunity for the African xylophone to be transported to island SE Asia. We know that African slaves were carried to SE Asia from an early period, and that xylophones are played in the same regions as the probable source of the slaves. Most tellingly, the earliest iconographic representations of musical performance in SE Asia, those at Borobudur and My Son, do not show pitched percussion ensembles, but rather flutes, drums and string instruments. Similarly, no xylophones appear in the friezes at Angkor, despite the importance of the xylophone in the Cambodian classical orchestra today. The xylophone in the Philippines is confined to the more southern islands and is manifestly borrowed from Indonesian traditions (Maceda 1998). The painstaking unpicking of Thai musical history in Miller & Chonpairot (1981) points to a first appearance of the xylophone in the eighteenth century. Xylophones do not appear on the paintings at Bagan in Burma and the pattala xylophone seems to be borrowed from the Mon.

The lack of any clear-cut evidence for the antiquity of the xylophone in SE Asia points to a recent spread, almost certainly outwards from Java or other central islands of Indonesia. Unless some remarkably specific iconographic representation were to be uncovered, absolute proof is unlikely to be forthcoming. Nonetheless, it seems perfectly credible that such a transfer did take place and initiated a transformation of SE Asian regional musical culture.
5. The influence of India and its iconographic representation

The evolution of South Asian maritime culture was historically strongly linked to political hegemony and religious conversion. Trade must certainly have been on the agenda of the earliest Indian shipping reaching SE Asia, but it went together with a highly persuasive cultural package. One part of this was musical life, and the friezes at Mỹ Sơn in Vietnam, at Angkor Wat in Cambodia and at Borobudur in Java, the iconography of performance indicates the intertwining of music and religion (Blench 2008). These sites are well after the entrance of South Asian cultural envoys, but only when iconography flourishes is it possible to get a sense of cultural life, even where archaeology can illuminate other aspects of subsistence and economy.

The first clear indications of Indian influence on mainland SE Asia come from Chinese records of Fùnán (扶南; Vietnamese: Phù Nam), a polity which flourished in what is now Southern Vietnam between the 1st and 6th centuries AD and was strongly influenced by Indian kingship rituals and Buddhism (Vickery 2003–2004). From this period onwards until the fall of Angkor in the 15th century, there was a continuous flow of Indian culture to this region, although actual documentation is very fragmentary (Mabbett & Chandler 1995). In ISEA the first inscriptions in Indian languages are equally old and in a surprising location, East Kalimantan. Seven stone pillars, yupa, have been found in Kutai, written in the Pallava script and dated, on palaeographical grounds, to the second half of the 4th century AD. These point to the emergence of an Indianised state in the region prior to AD 400. Despite this, evidence for Indian influence on cultural life is weak until monumental building begins on Java.

Despite these early dates, we can only assess the impact of Indian musical culture on local systems with the appearance of iconography. Vietnam has some musical archaeology, such as the bronze bells of Chinese type preserved in the historical museums in Hanoi and Saigon, but the sculptural friezes of most value are those in Mỹ Sơn (7th century onwards), Borobudur (9th century) and Angkor Wat (11-15th centuries). Borobudur and Angkor friezes are in situ, but the Cham sculptures were removed to the Da Nang Museum of Cham Sculpture (formerly Musée Henri Parmentier)7.

All these sites are rich in musical imagery and in most cases, it can be taken that the instruments depicted are those which were actually played at the period when the friezes were created. Nonetheless, care must be taken in decrypting such images. The transverse flute was the attribute of Kṛṣṇa and he is typically represented as playing it in religious scenes. Transverse flutes are common in Champa and Borobudur, though absent at Angkor. However, transverse flutes are not played in this region today, except in Vietnam, where they are a transparent Chinese borrowing. Similarly, all these sites include conventional images of apsara dancers, drawing on Indian iconography, which is unlikely to reflect dance practice. Secondly, this is the music of a ruling elite and is unlikely to reflect the whole range of performance in use at the time. Given these caveats, some of the common instruments can serve as examples of the transfer of musical culture.

7 It turns out this was a fortunate strategy, since the temples themselves were largely destroyed by United States carpet bombing in August 1969.
Vertical concussion bells, *chhing*, represent a classic import from Hindu culture and are principally associated with religious ceremonies. The bells are hemispherical in profile and are usually joined by a cord lining two loops at their apexes. The player clashes the top hemisphere against the lower one, and as the bells are usually of heavy bronze, they resonate for a long period. They are no longer used in India, but Marcel-Dubois (1941:31), who calls them *cymbales en bol à lanière*, records their first representation at Ajaṇṭā in the 6th century and their last at Khajuraho in the 12th century. Similar bells are known in Burma as *sì* (Keeler 1998: Fig. 9). Photo 12 shows a representation of concussion bells at Angkor, and Photo 13 a comparable image at Borobudur.

The conch, *saing*, was probably introduced with Hinduism as part of Brahminic rituals. The blowing of a conch shell by a priest created a propitious vibratory environment for divination, propitiation, or to signal the arrival of the sovereign. The conch was one of the objects that emerged from the Churning of the Sea of Milk, which is strongly featured in the iconography of Angkor Wat. Marcel-Dubois (1941:102) records a conch being blown vertically at Amarāvati in the 2nd-4th centuries AD. Conches are often shown not as musical instruments but ‘floating’ in the background of images. Kaufmann (1981: Abb. 83) illustrates a single conch and it is unsure that this is a representation of a musical instrument. This is curious, since conches play such a key role in the ethnography of Hindu ritual and their South Asian origin is freely acknowledged. Conches are still used today in temples throughout SE Asia. However, conches appear at Angkor in what look like military contexts played by specially dressed performers and this suggests they may have been adapted to signal uses because of their penetrating sound. Chou Ta-Kuan [= Zhou Daguan] (1993:73), the Chinese diplomat who spent a year in Angkor in 1296-7, records the use of the conch to indicate that the king was in audience.

6. The African diaspora in the Indian Ocean

The Atlantic slave trade, in the guise of diaspora studies, has received considerable attention from historians and archaeologists in recent decades. There is also a body of research on the Islamic trade across the Sahara, although much of this was in the 1960s and 1970s (Blench 2011). But until recently, the Indian Ocean trade had received almost no attention at all from scholars and certainly none from archaeologists. Yet it is almost certainly of greater antiquity than the other two and was conducted on a scale of equal magnitude (Collins 2006 estimates some twelve and a half million slaves were transported over two millennia). The reason for this curious lacuna is thus nothing to do with its historical importance and everything to do with ‘voice’, the stridency of communities in calling attention to their identity. Former slave communities are dispersed across a wide range of Asian countries and today speak a variety of languages, and records may be in languages not read by European scholars. What is written about them often does not enter the Euro-American library system. However, a range of publications has begun to appear, focusing on historical topics (Harris 1971; Rashidi & Van Sertima 1987; Baptiste 1998; Segal 2001; Basu 1993, 2008a,c; Catlin-Jairazbhoy & Alpers 2004; Collins 2006; Mohamed 2006; Obeng 2007; Ray & Alpers 2007; Hawley 2008;
Jayasuriya & Pankhurst 2003; Jayasuriya & Angenot 2008; Kessel 2007). Archaeology is almost completely ignored to date. Map 7 shows the approximate distribution of still-identifiable African diaspora communities around the Indian Ocean.

**Map 7. African diaspora communities in the Indian Ocean**

Focus on musical topics also including some summaries of Indian Ocean diaspora community music (Koechlin 2002; Badalkhan 2006; Khalifa 2006; Racy 2006; Catlin-Jairazbhoy 2007; Basu 2008a, b; Basu et al. 2008; Jayasuriya 2008). The first observation of African musicians in the diaspora may be by the Dutch priest, Phillipus Baldaeus, who lived in Sri Lanka from 1656 for nine years, and who wrote an extremely popular account of its customs, which was rapidly translated into English (Brohier 1960). On the 20th July 1656, Baldaeus (1672) described two ‘Kaffirs’ (the King’s trumpeter and drummer) who brought details of the Sinhalese King’s movements to the Dutch. He also mentions a ‘Kaffir’ trumpeter who accompanied a Portuguese free merchant. It seems likely these represent African slaves trained in European musical traditions. Nonetheless, the music of assimilated slaves remains popular in Sri Lanka up to the present with a
musical form, the *kaffirinya*, which in its local form reproduces memories of African dance-songs, but which now has been parlayed into an excitable genre of pop music.\(^8\)

The broader picture is that East African slaves were being transported from as early as 0 AD to Arabia, Oman and the Gulf. They rapidly became established in the Tihama and their musical culture is still very much alive today. Performances on the lyre, a characteristic musical instrument of the Horn of Africa are still to be recorded throughout this region (Bakewell 1985; Racy 2006). Exactly when the trade reached the northern coast of Arabia is less certain, but at least as early as the turn of the millennium. Olsen (2002) documents ‘African’ memories in Bahrain and Christensen & el-Shawan Castelo-Branco (2009) make similar observations for Oman. Further along, there are African communities in Makran, coastal Baluchistan, today’s Pakistan (Badalkhan 2006). Finally, the most well-studied groups are the Siddi, Siddhi, or Sheedi (Urdu: سیدی; Gujarati: સીદી), or Habshi (from the word for Ethiopia, *Habesh*), mainly in Gujarat and Hyderabad, India. The Siddi population is uncertain and current estimates range between 20–55,000. Siddis are mainly Sufi Muslims, although some are Hindus and some Roman Catholic Christians. Villages in the forests of northern Karnataka have residents who likely are descended from Mozambican/Angolan slaves who escaped from Portuguese traders and ships. Finally there are the ‘Indo-African’ communities who still survive in Sri Lanka today.

As Section §4. indicates, African slaves certainly reached island SE Asia and China, where they were treated as exotics, but also the subject of severe racist stereotyping. Famously, an African giraffe reached the Ming court along with a handler in 1414 (Filesi 1972). It seems likely that African musical practice had a significant impact in SE Asia, but not apparently in China. However, it seems there is no clear evidence for residual communities maintaining an African identity in the present. Kessel (2007) does indeed describe the *Belanda Hitam* which refers to African communities on Java, but these are remnants of the Dutch colonial enterprise, having originally been transported to Batavia in the eighteenth century.

The other locus of former slave communities are the Indian Ocean islands, the Comoros, Réunion, Mauritius and the Seychelles. These are predominantly French colonial possessions, with the exception of the Seychelles which was first claimed by the French but became a British colony. Two islands, Réunion and Mayotte, remain Départements of France, Mayotte having voted not to join the Comoros in Independence and will become an ‘Outermost region’ of the European Union in 2014. All these islands have complex histories, claimed, settled, exchanged between colonial powers, but also settled by Iranian traders, Malagasy and Indians. Without entering controversial politics, all have populations of predominantly African origin, a fact reflected in their music (La Sèive 1984; Des Rosiers 1992).

The Seychelles, in particular reflects the type of chronostratigraphic layering which provides a map of its psychic geography. The types of African music associated with the earliest layer of instruments described above which reflect a mixed Bantu/Austronesian culture. French popular dances of the eighteenth century still remain in fashion, such as the *contredanse*. However, some of the dances also reflect the English period of rule, including the polka and the waltz. East African coastal forms representing a mixed Afro-Shirazi culture, including *taarab, zouk* and *soukous* are popular. However, *sega*, originally a low-prestige form from Mauritius (and possibly before that with source in Mozambique) has now spread throughout the Indian Ocean islands and is now a dominant genre. Even more surprising is the *contombley*, which derives from Brazilian *candomble*, originally a music associated with the *vodun* cults on the coast. The list could go on, but the point should be clear. Deracinated cultures, a typical product of slavery, retain elements of their source culture, but often with transposed elements, as consequence of the bottleneck that the process of slavery represents. Individuals form a particular ethnolinguistic group are mixed together with others from quite different regions, and a characteristic language of intercommunication inevitably develops, in this case the creole languages typical of the Indian Ocean islands. Fragments of the source culture become adopted, but often with elements misinterpreted. The new culture is geographically displaced and thus not constantly reinforced by contact with more traditional, long-standing practices. It thus becomes open to adopting and

\[^8\] Web searches now produce breathless celebrity journalism and clearly the somewhat offensive implication of the term ‘Kaffir’ which has led to its disappearance in South Africa has no resonance in popular Sri Lankan culture.
integrating cultural practices from all the different peoples who pass though the cultural space. This should be contrasted with India, China and SE Asia considered elsewhere in this paper, where historical continuity can be attested from both archaeology and text analysis.

7. Conclusions

The expansion of models of exchange to include a variety of data sources can help construct a richer image of the past. The migrations from SE Asia to East Africa took place in an absence of documents, but their impact was highly significant. Unvarnished archaeology on Madagascar has yet to find demonstrably SE Asian ceramics, despite the evidence of language. Material culture indicates clearly something linguists have recently begun to suspect, that the migrations were complex and multi-ethnic, layered in time as well as space. The pattern formed by musical instruments shows clearly that there were significant contacts with islands such as Sulawesi as well as Borneo. The onwards transmission of instruments to islands such as the Seychelles, points to a mixed Bantu/Austronesian culture in the transitional era which has been obscured by later developments. Music cultures even more than figurative art or religious ceremonies give life to past cultures. They can be studied through a synthesis of scholarly disciplines which enriches our concept of prehistory.

Another aspect of a study of this type that would not easily emerge from archaeology alone is the importance of slavery in the transfer of material and social culture. The onwards distribution of all the instruments given as case studies in this paper is associated with slavery, even where the original movement reflected commercial and religious colonisation. The context of the movement of Africans to SE Asia is poorly understood, but Chinese records are fairly explicit on East African slaving. Slave cultures, by their very nature, are rarely documented, but just as in the diaspora westwards to the New World, transmit music, oral traditions, food cultures even where languages are lost (refs).

Another curious aspect of Indian Ocean transfers and exchanges are its absences. Evidence for Chinese voyaging in the Indian Ocean is excellent, their knowledge of ports and sailing directions well-established, and yet their impact on musical life was minimal. No instrument of Chinese origin or any type of Chinese musical practice appears to have spread with the trade. The explanation is presumably that the ir voyages very strongly focused on trade, and there was little or no cultural interaction with the places where their ships touched. This is partly in contrast with ISEA, where Chinese did form actual colonies, for example in Borneo and the Philippines, and also traded gongs throughout the region (Arsenio 2009). Even SE Asian islanders themselves, both Malays and those from other islands left remarkably little musical trace, given they traded in locations all around the rim of the Indian Ocean. Madagascar constitutes the one exception, where apparently a significant number of individuals, both Austronesians and Bantu-speakers physically took possession of the island, and both brought extensive cultural baggage. The Sassanians too, despite their maritime culture flourishing over four centuries, left remarkably little trace, except for luxury traded goods (Whitehouse & Williamson 1973). The contrast is thus with the Indians, Africans and Arabs, whose musical culture was strongly embedded in the matrix of their motives for maritime travel. Wherever they landed, traces of their music remain, transformed certainly. These very different outcomes present a striking dichotomy in terms of the impact of cultural and material transfers and should be reflected beyond the strictly musical. And it seems this is the case; if religion, linguistic borrowing, subsistence technologies, dress are considered, the result would be much the same.

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