'Rethinking Africa's transcontinental continuities in pre- and protohistory'

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A note on the Oppenheimer-Tauchmann thesis on extensive South and South Asian demographic and cultural impact on sub-Saharan African in pre- and protohistory

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NOTE. Professor Kurt Tauchmann of Cologne University, Germany, has for many years studied transcontinental continuities between sub-Saharan Africa, on the one hand, and South and South East Asia on the other hand. He was to be one of the key speakers at our conference, and he submitted a comprehensive abstract that was circulated through the conference website. However, he never came round to writing out his proposed paper. He was taken ill and hospitalised, and will be sadly missed during our conference discussions. The following improvised note hopes to do some justice to at least one of his viewpoints as communicated at an earlier stage, so that our conference can still benefit to at least some extent from the inspiration and expertise Kurt Tauchmann's work has to offer.

1. Introduction

Recently, Professor Kurt Tauchmann of Cologne University, Germany, has been so kind as to comment on my book draft on an Africanist application of Oppenheimer's (1998) Sunda thesis from his own specialist perspective – Tauchmann has been looking at South East Asian / African connections for many years. He proposed to add a few specific traits (paramour, joking relations and rulers' *ius primae noctis*) to my long list of Sunda traits which I provisionally proposed to be detectable in Africa. While corroborating the incidental, personalised South East Asian effect upon Africa through traders and royals – a factor stressed in my draft analyses – his main point was the following: a*ttention should be given to a massive* demic-diffusion *element, i.e. cultural diffusion because populations on the move bring their cultural baggage with them. In his opinion, prior to the Bantu expansion in East and South-East Africa, pre- and proto-historic migrations from South East Asia (such as have long been recognised to have populated Madagascar and given it its distinction cultural and linguistic characteristics) had given rise to a considerable Austronesian genetic and linguistic presence in those parts of Africa.* This is a moot point – the historian Kent who claimed – 1970 – extensive Sunda[1] kingdoms on the East African coast (cf. Birkeli 1936) was not taken seriously.

[1] I am using the term Sunda here exclusively to denote the South East Asian subcontinent, both in its original contiguous form and as it was largely flooded and fragmented into myriad large and small islands due to the rising

2. Convergence with Stephen Oppenheimer's General and Special Sunda hypothesis

2.1. Oppenheimer's Sunda hypothesis

In 1998, the British paediatrician and subsequently leading geneticist Stephen Oppenheimer formulated his Sunda thesis, claiming:

(a) with the melting of the polar caps at the end of the last Ice Age (10 ka BP), the ensuing global rise of the ocean level with 200 m and the inevitable flooding of much of the then subcontinent of South East Asia ('Sunda'), a massive Sunda out-migration came to populate not only Oceania but also ramified in a westerly direction along the Indian Ocean coast, all the way to the Indus and the Persian Gulf (and by implication possibly even to Africa, although that continent remains out of Oppenheimer's scope)
(b) this Sunda influx into South-western Eurasia is held responsible, according to Oppenheimer, for fertilising the Indus and Sumerian civilisations, bringing the cosmology and mythology of the Ancient Near East including that of Genesis.

In a recent publication I have sought (van Binsbergen 2008) to demonstrate, by a painstaking statistical analysis of flood myths worldwide, that Oppenheimer's 'Special Sunda thesis', i.e. (b) (which I thus designate by analogy with Einstein's Special and General Theory of Relativity; Einstein 1960) does not stand up to the empirical evidence. However, Oppenheimer's 'general Sunda thesis', claiming an overall South East Asian influence on Western Eurasia (and by extension, on sub-Saharan Africa) during the last 6 ka or so, I have found rather inspiring especially for an understanding of the long-range cultural dynamics in the recent prehistory, and the proto-history, of sub-Saharan Africa; cf. Dick-Read 2005; van Binsbergen 2007b).

2.2. Oppenheimer's arguments for his General Sunda hypothesis

Among the archaeological indications allegedly in favour of his Sunda thesis, Oppenheimer cites a few that I consider spurious:

- the Niah cave on Western Borneo, whose depictions of ships, however, (especially in a subcontinent with soul ships and maritime traditions) are not necessarily evidence of cataclysmic flooding and escape by boat
- El Ubaid (South Mesopotamia) clay figurines with pelletted features (which is unconvincing for due to the nature of the material clay figurines are rather similar in execution over vast areas, even South America);
- Oppenheimer sees the use of red haematite as a Sunda-related trait, but fails to appreciate that throughout Old World prehistory this mineral, as well as a similar iron oxyde known as red ochre, has had such a wide attestation in space and time that Sunda as epicentre of diffusion is excluded (not only Borneo (Niah cave), Sumer, Çatal Hüyük, Mapungubwe (South Africa), and prehistoric China – which might all be argued to have

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of the sea level by c. 200 m with the melting of the polar caps at the end of the last Ice Age, c. 10,000 (10 ka) BP (Before Present). My argument does not specifically address the Greater or Lesser Sunda Islands, which make up a substantial part of the Indonesian archipelago. Nor does the term Sunda here denote the sizeable minority of c. 30 million speakers of the Sunda language on Western Java – and their specific culture.

Sunda connotations, but even the Blombos Cave block, South Africa, 70 ka BP (Henshilwood *et al*. 2001), as well as many prehistoric burial sites all over the Old World, in between!) (cf. Wreschner *et al*. 1980; Marshack 1981)

- the mankala board game (which I have discussed in several publications (e.g. van Binsbergen 1996, 1997, 2011) and to which I have attributed, on archaeological and distribution grounds, a West Asian instead of a South East Asian origin even though it occurs sporadically in the latter region – in line with my Pelasgian hypothesis);[2]
- semi-circular axe blades, whose wide distribution (between New Guinea, South East Asia, Scandinavia, and Nkoya regalia in Zambia) is too unspecific[3] to substantiate Oppenheimer's theory, and the same applies to torques as mentioned by Oppenheimer.

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[2] The oldest documentary evidence on the game is from an Arabic MS from the late first millennium CE, *Kitab al-Aghani*, whereas the oldest archaeological evidence derives from the West Asian Neolithic (cf. Murray 1952; Rollefson 1992; Kirkbride 1966). The game is discussed as locally Lankan in Parker's classic description of Sri Lanka (1981 / 1909: 587 ff.), where that author makes the connection (perhaps spurious) with one Ancient Egyptian apparent attestation. All this would render mankala an interesting case for the study of African-Asian continuities. Unfortunately, in the course of my short Sri Lankan fieldwork it proved almost impossible to find any mankala boards, except a handful in the Colombo Museum, where (in line with Parker) the game is identified as 'Colombo olinda'. The very name *olinda* proved misleading, for to many Sri Lankans this appears to be simply the Singhalese name for a type of seeds commonly used as *mankala* tokens, or for a shrub producing them. The Dutch mankala specialist De Voogt inspected (2000) the Colombo Museum specimens and cannot give them a higher antiquity than early 19th C. CE.:

> 'Finally, special mention should be made of a bed owned by Ehelapola (37.1.26). [Ehelapola was a Lankan politician flourishing in the first quarter of the 19th century -- WvB] Hidden behind a removable top, a mancala game is carved out of the panel of the bed. The relevance of this item is considerable. At present, there is a general conviction that mancala was played by royalty in the Kandy period. The data on boards in the museum files only indicate the date they entered the collections and do not identify the owners, former players or dates of making or using the board. The bed of Ehelapola is one of the few objects that clearly indicate an owner who apparently favoured the game so much that it was carved in his bed. This gives evidence that the game was played by royalty, by men and that it enjoyed a certain popularity. It cannot have been for pure ceremonial use since Ehelapola used it as a pastime. In addition, this bed and board give evidence of the age of the game. It is known that Ehelapola lived before 1815 which makes this object the *oldest* [my italics – WvB] wooden mancala board in a museum collection of a confirmed date. So far, the oldest collecting date has been 1823 (de Voogt 1997: 15) and little can be said of wooden mancala boards of the Nineteenth Century in relation to the time they were made or used in play. The bed of Ehelapola gives clear evidence of the much suspected old age [*sic* – WvB] of mancala games and boards.' (de Voogt 2000: 94 f)

A testimonial from the one informant who clarly knew the game well, suggested that the game had died out in the course of the 20th century, while before that time it was known in Sinhalese under a name meaning 'making the time last longer' – to be played during the introductory phase of weddings, which could not proceed before the game had a winner. Such an intercalary situation outside time (the wedding mythically referring to the cosmogonic union of Heaven and Earth, before time) reminds us of the use of the game according to Parker, in New Year celebrations (in Sri Lanka there is normally an intercalary period of a few hours, not as in Ancient Egypt five days, between the end of the Old and the beginning of the New Year; female-played drums, board games, and the eating of ceremonial fat cakes fill this vacuum in time, and help to bring the New Year forth). I am now in two minds about the origin of Sri Lankan mankala. (a) It could very well be part of the Pelasgian heritage, and in that case share a common West Asian origin with African mankala. (b) Meanwhile, given the facts of a transcontinental maritime trading network since the Bronze Age, and of African slaves in the Indian Ocean (even though this fact is played down in present-day Lankan public representations including museums) the specific African forms of the game could be brought to the island in the course of the last two millennia, by Africans. A similar suggestion of being an African import was made for Indonesia, where the mankala game is likewise not totally absent, yet very rare.

[3] Oppenheimer seeks to argue continuity between ceremonial axes from New Guinea, the Isle of Roti (East Indonesia), and Sweden (the Galstad Axe, 800 BCE). Now ever since the times of Montelius (1843-1921) archaeology has emphasised definitional elaboration and rigour, and geo-graphical and temporal self-restraint, in the field of typological comparison. Inevitably, one cannot engage in long-range comparison without arousing and

but also a remarkable mythological point that seems a real eye-opener:

- Berossus' tradition,[4] according to which which humankind learnedhe arts of civilisation from an amphibian being, Oannes, that appeared at the Persian Gulf and that, after teaching by day, retreated to join his companions at sea for the night.[5] This is an interesting idea which is, however, open to many alternative interpretations. The Berossus fragment has it:

> '…he gave them an insight into letters and sciences, and arts of every kind. He taught them to construct cities, to found temples, to compile laws, and explained to them the principles of geometrical knowledge. He made them distinguish the seeds of the earth, and shewed them how to collect the fruits; in short, he instructed them in every thing which could tend to soften manners and humanize their lives. From that time, nothing material has been added by way of improvement to his instructions. And when the sun had set, this Being Oannes, retired again into the sea, and passed the night in the deep; for he was amphibious.

Although we must refrain from accusing Oppenheimer of guilt by association, yet it is instructive to compare the preposterous use to which Temple 1977 has put the same myth. He sees the legendary Oannes who appears at the Persian Gulf at the onset of Sumerian civilisation, as an extraterrestrial space traveller, who imparts his local knowledge of the composite (allegedly, even triple) nature of the star Sirius, to the locals (who apparently have, or receive on the spot, the astrophysics to make sense of the idea of stars as distant concentrations of matter which may or may not revolve around each other), and from there, via the Garamantes people who traversed the Sahara at some time around the beginning of the Common Era, that privileged knowledge made its way to the Dogon, where Griaule and Dieterlen (1965) tapped it in the middle of the 20th century CE. As an apparent proof of African astronomical knowledge superior even to state-of-the-art North Atlantic science, the Griaule-Dieterlen publication has generated an enormous literature, mainly from Afrocentrist side. My Leiden colleague Walter van Beek (1992) restudied the Dogon in recent decades, but could not get confirmation that Griaule's cherished ethnoastronomy had any empirical, intersubjective basis on Dogon culture; however, Dogon culture is generally admitted to be fragmented and heterogeneous, and it is a time-honoured epistemological principle that one cannot empirically proof non-existence. In North Atlantic specialist science, the dual nature of Sirius was only proposed on mathematical grounds by

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offending the ghost of Montelius, and that truism would apply to my own work as much as to Oppenheimer's. Yet when comparing artefacts from the extreme ends of the Old World, we do need to exercise extreme methodological caution. What the artefacts discussed by Oppenheimer have in common is that the outer periphery of the axe blade is more or less a circle segment, while similar curves return elsewhere on each artefact. The caption suggests continuity with Lapita pottery (the major class of 'index fossils' of early eastbound Oceanian expansion), and with the Dong-Son bronze culture of Viet Nam. One might even go on to point to Etruscan, Celtic (La Tène) and Anglo-Saxon artefacts from South, Central and West Europe, whose ornaments are often circle-based. Again, the point is not that any connection between Sweden and East Indo-nesia is automatically to be dismissed (cf. the Nkoya example, which yet – because of my identification of the Nkoya as Sunda-related – suggests the possibility of a genuine Sunda link), but that only a finely attuned, theoreti-cally underpinned typology, explicitly argued before a professional forum, could make such statements more than mere wishful thinking. Without the attending analytical framework, such assertions are, in the most literal sense, meaningless. The same argument holds for the example of the neck rings from Nias, Indonesia, and those from North Europe – and, as might have been added again, Celtic Europe, where, for instance on the famous Gundestrup caul-dron which is mentioned in Oppenheimer's text, they appear to be signs of divine and royal election rather than a 'Torc of Death'.

[4] After Smith 1873: 306; cf. Cory 1832.

[5] The source of the Oannes myth is a Berossus fragment in the ancient historian Alexander Polyhistor, as cited in Cory 1832, cf. Fragments n.d. and Jacoby 1923-27. On the Oannes myth, cf. Smith 1873; Schnabel 1923; Hallo 1963: 176, n. 79 and Lambert 1962: 65 (etymology of the name Oannes). A very interesting reading is that of Georges Roux (1992), who sees Oannes as a personification of the Sumerians: the latter settled in what is now Southern Mesopotamia when the general rising of the sea level chases them from the alluvial plain which is now the Persian Gulf – in other words they, like Oannes, came from the sea, but only locally so.

> Friedrich Bessel in 1844, to be confirmed astronomically a few decades later. All this leaves ample opportunity for the scientific notion of a dual Sirius to percolate to the interior of West Africa (Sagan 1979). After all, also Islamic secret sciences have made a considerable impact there – as is clear from the famous pronouncements of Ogotomelli, likewise published by Griaule (1948). However, this part of Africa is generally is known for its exceptionally elaborate mythological tradition (Willis 1994: 265), and my preferred view is that, by another 'fallacy of misplaced concreteness' (Whitehead 1997), Dogon mythology has simply been misread, not as a multilayered, ambiguous and heterogeneous mythical cosmology that it is, but as if it were a modern astronomical treatise in disguise. Incidentally, astronomers are still looking for a third member of the Sirius star system, but as far as I know, without success (Solstation.com 2005; Benest & Duvent 1995; Schroeder *et al*. 2000).
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> Meanwhile the most convincing identification of Oannes is simply the water god Enki. As the prominent Assyriologist Oppenheim writes (1970: 195 and 365, n. 24):
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> > 'Among the old gods of the pantheon, Ea (corresponding to Sumerian En.ki) occupied a special position. Originally the local deity of the southernmost city, Eridu, he shared, according to late speculation, the rule of the cosmos with Anu and Enlil inasmuch as his realm was the waters surrounding the world and those below it. Apart from having been the patron god of exorcists, Ea was a master craftsman, patron of all the arts and crafts, and endowed with a wisdom and cunning that myths and stories do not tire of extolling. He must have been thought of in certain respects as a 'culture hero', until the late period, since an Ea figure seems to have been the prototype of the culture hero Oannes mentioned by Berossos. (…) Oannes taught men the art of writing and figuring, and all crafts, also to organize in cities, and to establish temples
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> The identification of Oannes with the god Ea/An.ki is fitting in other respects (Cotterell 1989: 86): the god is reported to have incestuously pursued his daughters, and like a real spider had left his semen in the body of Uttu, the spider goddess of weaving; he was part man part fish, was reborn from the womb of his wife Nimhursaga, and was the Great God protecting Ziusudra (Sumer) = Nuaḥ (Bible) = Atraḫasis (XXXXXX) = Utnapishtim (Gilgamesh epic). Also compare the South Asian Matsya (an *avatār* or historical manifestation of the great god Vishnu), saving the flood hero Manu – Matsya is reminiscent of the Sumerian Oannes, and both are, admittedly, smack in the proposed Sunda trajectory.

and finally a few traits whose distribution does seem to offer some support, notably

- the presence of cloves in a 2nd or even 3rd mill. CE Anatolian context (Wright 1982) – whereas cloves by that time were only grown in the Moluccan Islands, Eastern Indonesia
- the presence of bananas in West Africa 1000 years BCE – whereas bananas, known to originate from New Guinea, can only be propagated through shoots, which therefore must have been transported with great human care from South East Asia to West Africa

The distributions of taro *(Colocasia esculenta*; cf. Lee 1999) may be a further case in point.

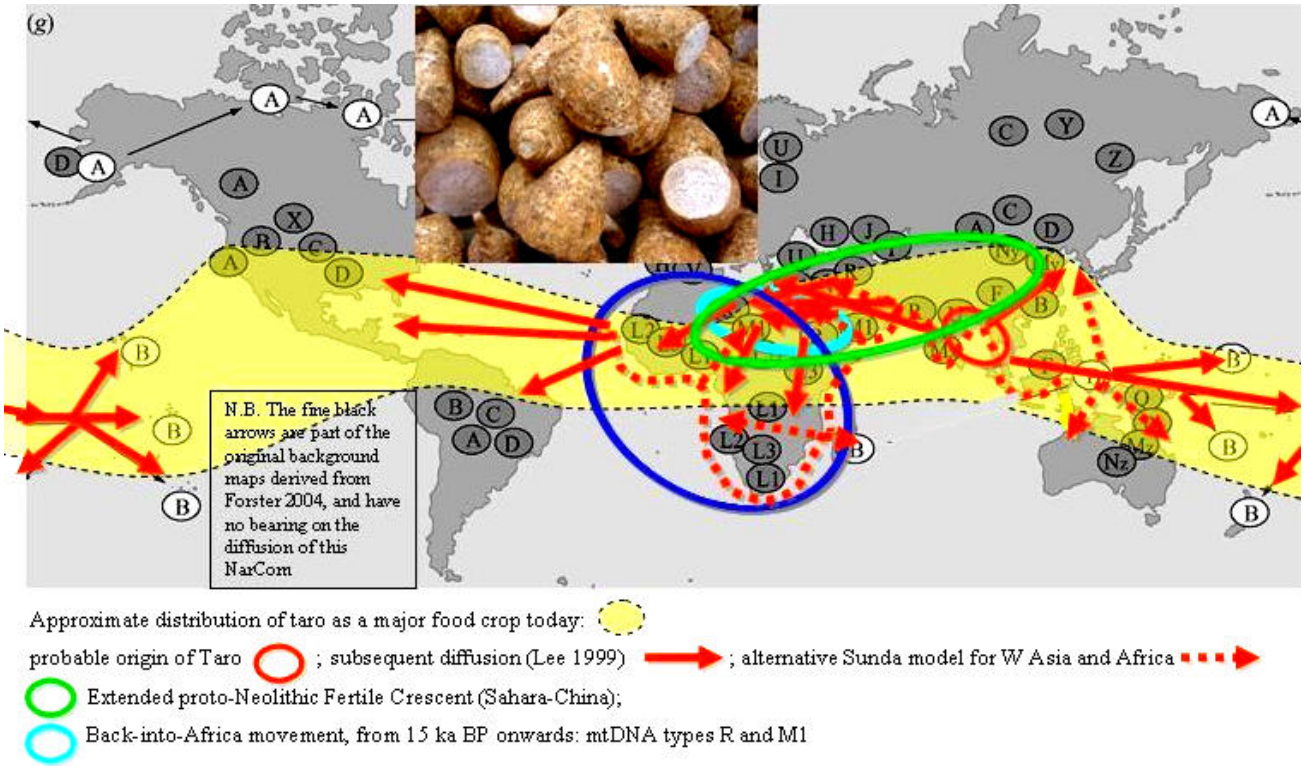

Fig. 1. Tentative reconstruction of the diffusion of Taro (Colocasia esculenta as another indication of Sunda influence on the West (data: Lee 1999; diagram: van Binsbergen 2007)

Dick-Read (2005) even claims indications that the New World food plants that were to play such a dominant role in sub-Saharan Africa in post-Columbian times (maize, cassava, peanut, etc.) may already have reached West Africa in pre-Columbian times via a trajectory along the Pacific, the Indian Ocean and the Cape of Good Hope.

Oppenheimer, with all his interest in comparative mythology (unfortunately guided only by James Frazer, *floruit* c. 1900 CE) does not exploit to the full the truly puzzling fact that the distribution of a considerable number of mythemes centres on the Western and the Eastern end of Eurasia without the Pelasgian, trans-Steppe model offering a satisfactory explanation. These are specially sea-related mythemes, such as gods / culture heroes fishing up the land from the sea (in Ancient Nordic and Oceanian mythology), or inventing the sail (in Greek and Oceanian mythology).[6] But also the mytheme of incessant divine intercourse preventing the world (the junior gods) from being born, is found both in the Aegean, on the Bight of Benin, and in Oceania. A similarly global distribution has the mytheme of 'Creation of humankind from earth or mud' (*Genesis*, Egypt (Ḫnum), South East Asia, South China, Oceania (Willis 1994: 22, 91). Also spider gods range from West Africa (Nzamb / Nyambi), via the Mediterranean and the Ancient Near East (e.g. Athena, Neith, Anahita) to Oceania. Here we may take recourse to the hypothesis of a multi-centred, multidirectional, transcontinental maritime network creating conditions of proto-globalisation from the Bronze Age onward – but such an hypothesis, while admitting the possibility and the fact of contact between South East Asia and the West, does not in the least stipulate borrowing in exclusively one direction. However, given the Graeco-Roman Ancient World's extensive familiarity with the Indian Ocean environment (as attested by a text

[6] In my forthcoming monograph on the Sunda thesis these mythemes, their variants and sources will be discussed in much detail.

like *Periplus* – *cf.* Cory 1828 – from the beginning of the Common Era, by the massive circulation of Ancient Roman coins in the Indian Ocean region, the fact that diaphanous silk dresses were the great ladies' fashion in Imperial Rome, etc.), and the relatively late peopling of Oceania in the most recent millennia, there is a strong possibility that these parallels derive from a one-directional diffusion East from a Mediterranean / West Asian source – counter-directional to the Sunda thesis.

Such a global maritime network is depicted in the following Figure.

3. Putting the Oppenheimer-Tauchmann hypothesis to the test with special emphasis on Africa: The linguistic argument

This presumed Sunda presence in Africa would have to be detectable in the form of an Austronesian substrate in Eastern and Southern Bantu languages (a phenomenon already suggested – albeit for only a few East and South-eastern African languages, notably Makuwa, and the SothoTswana cluster – , by the sometime Leiden Professor of African Linguistics Thilo Schadeberg; personal communication 1994). Also, Tauchmann's point calls to mind the fact that recently, population geneticists have formulated the 'Back-into-Africa' hypothesis, which implies an influx of East Asian and South East Asian genes into sub-Saharan Africa in pre- and proto-historical times (e.g. Hammer et al. 1998; Cruciani et al. 2002; Underhill 2004; Coia et al. 2005).

To such distributional indications we may add etymological indications. For important theonyms and personal names from the Eastern Mediterranean in the Bronze Age, such as Osiris, Neith, Minos / Menes,[7] Austric etymologies may be formulated (van Binsbergen & Woudhuizen 2011) – which of course remains nothing but a possibility and does not mean that these names must necessarily derive, 100% sure, from South East Asia. The same is true for the name Dilmun, the mythical paradise of the Sumerians, which modern scholarship has often identified with the Isle of Baḥrayn in the Persian Gulf; while the Arabic meaning is 'Salt Water and Sweet Water' – literally: 'The Two Waters': it was a standard watering place for ship to and from the Indian Ocean. Its Austric etymology would give a meaning 'Star Land' or 'Moon Land' – quite plausible, not only given the place's connotations in Sumerian mythology, but also given the roughly crescent-like shape of its contours, and the fact that, in some other languages around the Indian Ocean including Arabic, the names of much larger but similarly shaped islands like Madagascar and Ceylon may be associated with the same meanings.

Of course, the main linguistic argument for the reality of Sunda influence on the West is the fact that virtually the whole population of the huge island of Madagascar, tucked against the African continent in the Western Indian Ocean, speaks closely related Austronesian languages.

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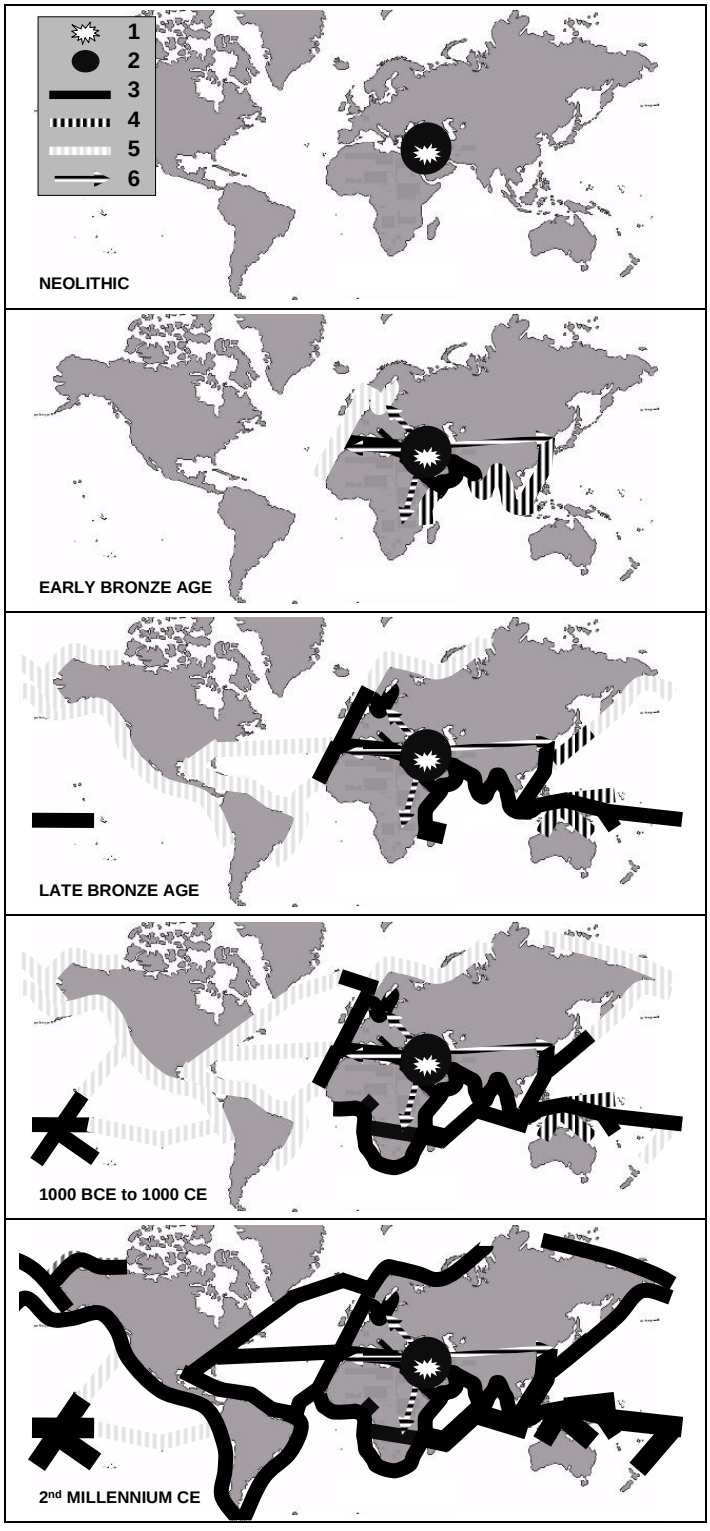
[7] Of course, in their original form and reconstructed by specialists. What we use in modern interdisciplinary scholarship, including the present argument, are varieties of mere Greek or Latin approximations of the original names.



LEGEND. 1. Proposed origin; 2. Initial expansion of 1; 3. Extent of (semi-)maritime network; 4 . idem, putative; 5. idem, highly conjectural; 6. The 'cross-model': expansion of Pelasgian traits (largely overland)

Fig. 2. Proposed emerged of a global maritime network since the Neolithic

Meanwhile an interesting linguistic indication of possible Austric influence on the Persian Gulf lies in the claim,[8] first made by the French anthropologist Paul Rivet in the 1920s, and meanwhile supported by the prominent and authoritative linguist the late I.M. Diakonov (1974), to the effect that there exists a striking affinity between Sumerian (a puzzling language isolate which had eluded scholarship up to the second half of the 19th c. CE, yet the very basis of the civilisations of the Ancient Near East) and Munda. The latter language is a member of the Austric macrofamily. Austric is a relatively recent linguistic construct (proposed by the famous anthropologist and student of comparative religion Wilhelm Schmidt in 1906) comprising the two main branches of Austronesian (e.g. most Indonesian and Oceanian languages) and Austrasiastic (comprising many of the languages of continental South East Asia, including Munda).[9]

[8] I am indebted to Vaclav Blažek for pointing this out to me.

[9] In the further pursuit of such connections linking Austric to the Western parts of the Old World including Africa, we much look further than merely diffusion and also include underlying genetic relationships into our analysis – i.e., those indicative of a common origin. This especially applies to the relationship between Austric and one of the four linguistic macrophyla historically spoken in Africa: Niger-Congo. The Tower of Babel linguistic database enables us to trace patterns of relationship between the world's linguistic macrophyla – at least, it does so after specific phases of data processing, and after my own reassessment of the corpus of proto-Niger-Congo as operationalised by a newly constructed corpus of proto-Bantu (steps that are beyond our present context; cf. van Binsbergen, in press [cluster analysis] ; van Binsbergen & Woudhuizen 2001; van Binsbergen 2011 [limits Black Athena]). The results are truly remarkable in that they bring out the relatively close affinity between

a. a central cluster of macrophyla, comprising Eurasiatic, Afroasiatic and Sinocaucasian, on the one hand, and

b. a peripheral cluster of macrophyla, comprising today's African macrophyla Niger-Congo, Nilo-Saharan and Khoisan, as well as Austric and Amerind.

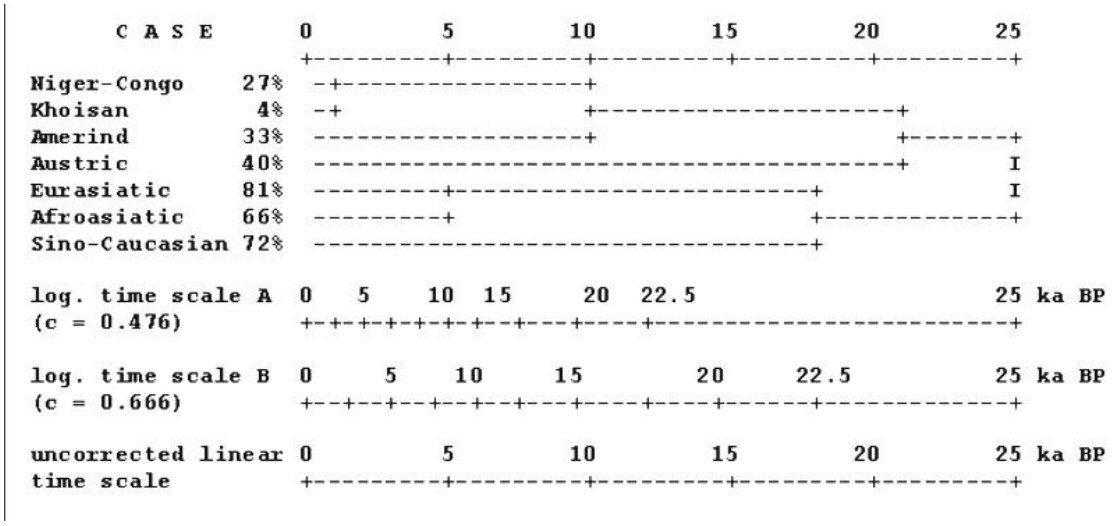


Fig. 3. Cluster analysis of *Borean reflexes in macrophyla

The Middle Palaeolithic background to this bifurcation, and its correspondence with genetic haplotypes (mtDNA types) I have suggested elsewhere (van Binsbergen & Woudhuizen 2011: **[add]**). That Niger-Congo and Austric have considerable affinity is already suggested by the fact that the eponymical Bantu (< Niger-Congo) lexical root *–ntu*, 'human', comes back as *taw*, 'human', in proto-Austronesian. However, there are substantial reasons for us not to isolate the case of these two macrophyla, but to see this correspondence as just two indications of a truly

4. Putting the Oppenheimer-Tauchmann hypothesis to the test: The genetic argument

4.1. First 'Out of Africa', then 'Back into Africa'

In a 2004 paper, Peter Underhill rendered this process as a transmission of haplo group M from Eastern Eurasia to sub-Saharan Africa, yielding haplo group M – complementary to the transmission of Western Eurasian haplo group U to sub-Saharan Africa, in the form of haplo group U6.

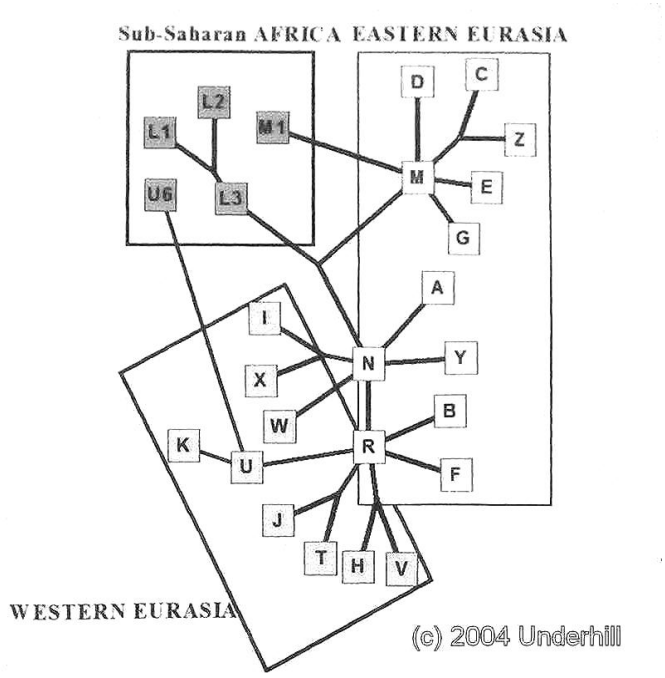


Fig. 4. 'Back into Africa' according to Underhill (2004)

Forster (2004: Fig. 2b (80-60 ka BP), 2c (60-30 ka BP); and 2g (15-2 ka BP) renders essentially the same process in a geographically more explicit and detailed form. Although the complexities of the U haplo group in Western parts of the Old World during the Upper Palaeolithic are notorious (Maca-Meyer et al. 2003; Plaza et al. 2003; Cherni et al. 2005; González et al. 2003), it may not be impossible to read the transmission of Eurasian U to sub-Saharan African U6 as corresponding with the cultural transmission of Scythian, Uralic, or otherwise West Asia / Pelasgian traits into sub-Saharan Africa from the Late Bronze Age onward, as a result of chariot technology, as discussed in some detail in some of my recent publications and work in progress (van Binsbergen 2009, 2010b, 2010c, 2011d; van Binsbergen & Woudhuizen 2011).

'global etymology' (cf. Bengtson & Ruhlen 1994; however, they do not include this case), whose outlines I have sketched in van Binsbergen 2010: 155 f., around the semantics 'under, bottom, human'. Meanwhile it is very likely that the spread of Bantu (< Niger-Congo) as a phylum in Africa, from the 1st mill. BCE onward, and the expansion of South East Asian demographic / genetic and cultural influence in that continent, have gone hand in hand, and that it is in that combination in the most recent millennia, rather than in the common *Borean elements of both Austric and Niger-Congo in the Upper Palaeolithic, that we must look of an explanation of the *–ntu* / *taw* parallelism.

Forster's global rendering highlights the South and South East Asian connotations of haplo group M (as a gradual transformation, along the South coast of Eastern Eurasia, of haplo group M brought to South West Asia (the Arabian peninsula) along the Northern Route 'Out of Africa' (from 60 ka BP on) – while another offshoot of M was transmitted to East Central Asia and eventually became ancestral to part of the population of the Americas. Forster shows how the M1 haplo group was transmitted via the Persian Gulf into Northern Central Africa; considering the prominence of other M haplogroups in South East Asia, this region might also have been the ultimate origin of M1, but so far the evidence for such an assumption does not seem to be available.

4.2. The Pelasgian hypothesis

If Tauchmann's hypothesis is correct, then this would have considerable consequences for the Pelasgian thesis, which I have formulated specifically as an alternative, not only to Bernal's *Black Athena* hypothesis both also to Oppenheimer's General Sunda thesis. With the Pelasgian hypothesis, I postulate that much of the long-range cultural dynamics of the Old World since the Early Neolithic may be explained on the basis of a Primary Pelasgian Realm extending from the fertile Sahara to Central Asia ca. 7 ka BP, and containing, *in nucleo*, a considerable number of cultural and genetic traits, which (while undergoing transformations in detail) subsequently spread West to cover the entire Mediterranean, and East to China, to finally be transmitted, on the wings of chariot technology in the four directions of the compass (hence my term '*cross-model'* for this process): to North Western Europe, to Northern Europe, to East Asia, and to sub-Saharan Africa. The empirical backing for this hypothesis is supplied by an extensive list (van Binsbergen & Woudhuizen 2011) of over 80 traits (some genetic, most of them cultural), with summary indications of their distributions in West Asia, the Mediterranean, Western Europe, Northern Europe, the Steppe region of Asia with extensions to East, South and South East Asia, and finally in sub-Saharan Africa.

4.3. Sunda and/or Pelasgian

Under the Pelasgian hypothesis, I have tended to consider the prevalence of Pelasgian traits in sub-Saharan Africa mainly as a result of southward diffusion from the Mediterranean / West Asia – using as important indications: Steppe traits (such as the skull complex / headhunting), the Niger-Congo (> Bantu) macrophylum (for which I demonstrate the *Borean affinity; van Binsbergen in press [2010d]), the dominant mythology of the Separation of Heaven and Earth, the central institution of kingship, continuities in the kinship and gender field, etc. The parallels between

1. South East Asia / Sunda,
2. sub-Saharan Africa, and
3. the Bronze Age Mediterranean

I explain, under the Pelasgian thesis, as resulting from the spread of Pelasgian traits from their postulated West Asian / Eastern Mediterranean origin into the Western Mediterranean, Africa and South East Asia.

My Pelasgian hypothesis, meanwhile, emerged as a less radical and ultimately more convincing alternative to an earlier model of mine, in which both the Mediterranean and the African

distributions of 'Pelasgian' traits were in fact interpreted as reflecting, in accordance with Oppenheimer, the presumable penetration of 'Sunda' (i.e. South East Asian, Austric) traits, both into the Mediterranean and into sub-Saharan Africa. In my more extensive discussions, I have not concealed a number of indications of the possible Sunda background of West Asian and Eastern Mediterranean phenomena, e.g. the potentially Austric etymology of Dilmun (the Sumerians' sacred island and trade centre in the Persian Gulf), and of a number of central names / concepts in Ancient Egyptian religion (van Binsbergen & Woudhuizen 2011: 370-372, Table 28.4). Now, under Tauchmann's hypothesis of an extensive pre-Bantu Asian presence in East and South Africa during the first, and perhaps early second, millennium of the common era, my earlier, Sunda-centred model may need to be, to some extent, restored to the central explanatory position in which I held it a few years ago. A considerable number, perhaps even the majority, of 'Pelasgian' traits in sub-Saharan Africa might have come to the latter region, not directly as a result of southward expansion of Pelasgian traits from the Mediterranean, but only indirectly, carried on the wings of Sunda expansion, so via the detour of South and South East Asia. We may have to interpret the apparent Bantu elements in the West Asian and the Eastern Mediterranean Bronze Age (van Binsbergen & Woudhuizen 2011) as a further indication of Sunda influence – and by the same token we would interpret as distant Sunda effects the rapid improvement, in the Eastern Mediterranean, of nautical skills, and the emergence of Neolithic trading ports (such as Jafa / Joppe and Corinth).

Apparently puzzling elements (oppenheimer 1998) such as shell money (almost indistinguishable from current Melanesian versions) in the royal tombs of Ur would come closer to an explanation – if the parallel is not a red herring in the first place, for beads and other ornaments from sea shells and ostrich shells have a very wide distribution in space and time, against which the Oceanian-Ur affinity needs not be proof of Sunda influence at all.

The emergence of Indus and Sumerian civilisation may, as suggested by Oppenheimer, have been indebted to some Sunda catalytic influence, again just as postulated by Oppenheimer. Thus the General Sunda hypothesis seems to promise considerable explanatory power and appeal, and my dismissal of the Special Sunda thesis with regard to *Genesis* mythology specially flood myths (van Binsbergen with Isaak 2008), does not in the least mean that I consider the General Sunda hypothesis to have been refuted wholesale and once for all – quite on the contrary.

4.4. Genetics and the Oppenheimer-Tauchmann hypothesis

An entire, separate argument could be advanced concerning the genetic support for the Sunda thesis. Oppenheimer, himself a paediatrician who developed into one of British most prominent and vocal geneticists today, seeks such genetic support for his thesis primarily in the global distribution of thalassaemias – a range of hereditary blood conditions which combine the debilitating effects of chronic anaemia with a remarkable resistance against malaria. While it is thalassaemia research which put him on the track of the Sunda thesis in the first place, I, as a non-specialist from a different discipline (so without any authority in this field), am not impressed with the thalassaemia evidence as proposed underpinning of the Sunda thesis, but other genetic markers, and with (in view of van Binsbergen with Isaak 2008) unexpectedly positive results for the Sunda thesis.

If Tauchmann is right and there was in fact a massive South East Asian / Austric presence in East and South East Africa prior to the effective penetration of the Bantu expansion there, then this would have to show in the genetic record. In that case distribution maps of classic genetic

markers and of single genes would have to bring out patterns that link sub-Saharan Africa with South East Asia, more than with most other parts of the Old World.

At the level of mitochondrial DNA types (Forster 2004), this is certainly the case: African continuities in terms of the 'Back-into-Africa' thesis are to be found in relation with the haplo groups M1 and U6, but these have no recognised South East Asian connotations.

Although belonging to a phase in the genetic sciences prior to the advances in molecular biology in the 1990s, yet the distribution maps which Cavalli-Sforza *et al.* (1994) present in abundance, offer a further opportunity of testing Tauchmann's hypothesis.[10]

4.5. The surprisingly negative evidence from thalassaemias

Here we expect, in the first place, to derive insight from the distribution of thalassaemias (hereditary blood conditions that have a debilitating anaemic effect yet render immunity to malaria), for Oppenheimer (one of the main present-day researchers of the genetic aspects of these conditions) advances the world distribution of thalassaemias alpha and beta as the main genetic underpinning of his Sunda hypothesis (Oppenheimer 1998). I reproduce his global distribution map of thalassaemia here as Fig. A. He offers a genetic argument identifying South East Asia as the place of origin of these mutations. Note that beta thallassaemia is mainly confined to a belt that extends from Northern Spain to New Zealand, north of sub-Saharan Africa; but that it also occurs on the Bight of Benin -- although not along other significant stretches of the proposed Sunda trajectory into Africa: not in Madagascar, nor in Southern Africa. The latter threatens to make this finding less convincing as evidence of direct seaborne Asian influence during the last millennium and a half.

[10] After my initial training in physical anthropology, as a minor field, at Amsterdam University in the 1960s, under R.A.M. Bergman, I only followed genetics from a distance, until in the 2000s, in the context of Michael Witzel's work and of his Harvard Round Tables, it appeared as a major ancillary field in long-range research in comparative mythology. Today, a professional geneticist would not be happy to exclusively rely on Cavalli-Sforza et al. 1994. However, single-handedly, this is the best I can do at this stage.

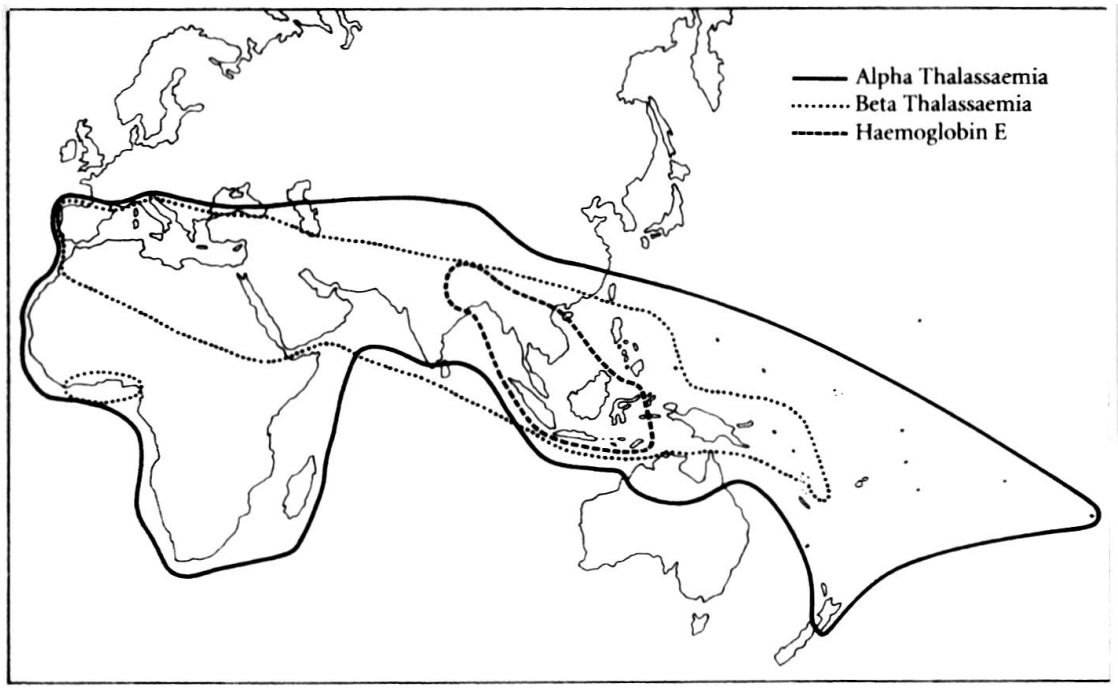


Fig. A. Global distribution of alpha and beta thalassaemia according to Oppenheimer (1998); note the isolated coastal attestation of beta thalassaemia along the Bight of Benin.

Fortunately we have the additional evidence from Cavalli-Sforza et al. 1994, showing more than minumum readings for Madagascar and the East African coast – somewhat in line with the Oppenheimer / Tauchmann hypotheses. Yet, for beta thalassaemia the evidence does not look good (Fig. B). Without denying the possible implications of the relative highs, in Africa, in Eritrea and the Maghreb, the African incidence of beta thalassaemia remains so low, across the continent, that no claim of a massive Asian substrate influence throughout East and South East Africa can possibly be based on it.

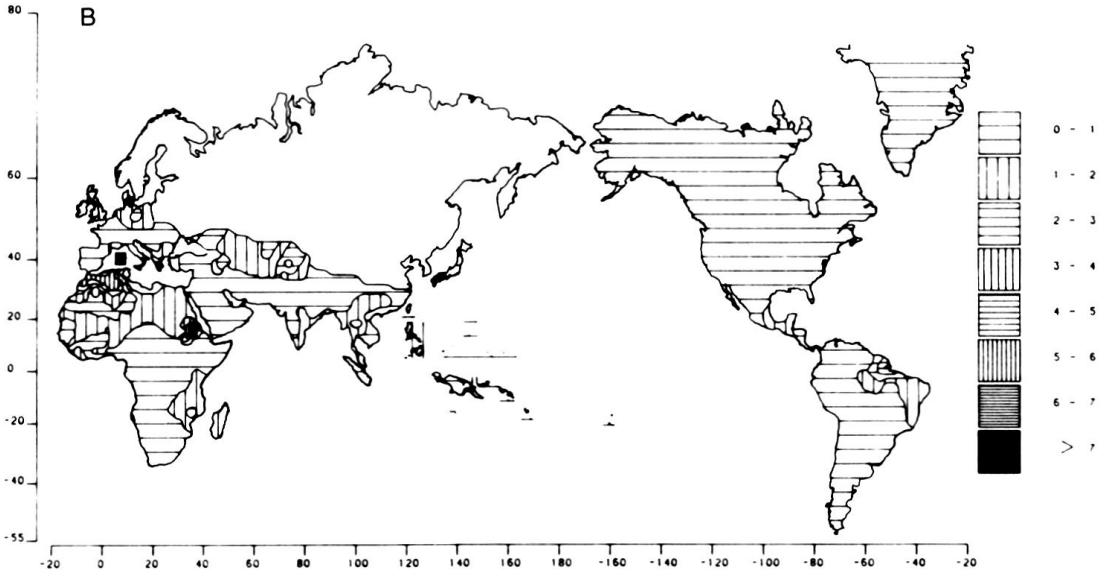
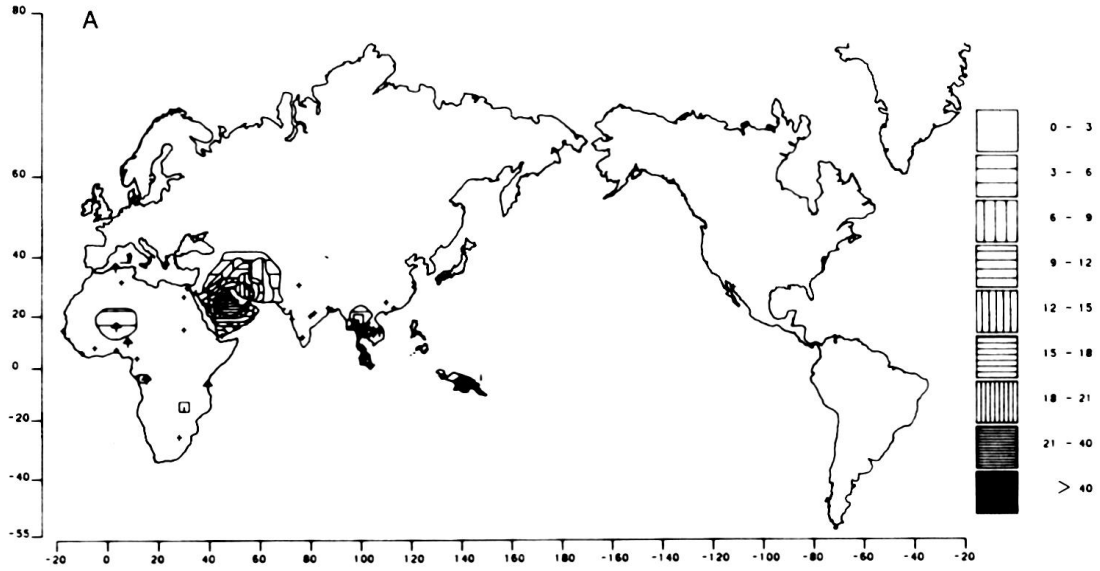


Fig. B. World distribution of beta thalassaemias (after Cavalli-Sforza et al. 1994: Fig. 2.14.6.B; numbers to the right indicate the gene frequency in %)

For alpha thalassaemia (Fig. C) the conclusion concerning an Asian substrate in sub-Saharan African can be even more straightforwardly negative:

- there is clearly a succession of highs extending from South East Asia to South West Asia (Iran and Arabian peninsula), suggestive of movement along an East-West axis; but the direction of that movement cannot be determined from the distribution alone – it may have been from East to West as implied by Oppenheimer, but just as well from West to East, as would be in line with the Pelasgian hypothesis;[11]
- anyway, none of these high frequencies of alpha thalassaemia have reached sub-Saharan Africa.

Fig. C. World distribution of alpha thalassaemias (after Cavalli-Sforza et al. 1994: Fig. 2.14.5.A; numbers to the right indicate the gene frequency in %); unfortunately,the figure gives no information on Madagascar, Indonesia,. Oceania and Australia but this may be remedied by a more extensive library study; also cf. Fig. A



4.6. The corroborative evidence from other genetic markers

Thalassaemia distribution is apparently not the way to genetically prove a massive Asian substrate presence on the African continent. Yet some other single-gene distributions offered by Cavalli-Sforza *et al.* 1994 may have more in stock for us:

- not HLAB*12 (which reaches even a global low in South East Asia);

[11] In fact, looking at the distribution, the most likely interpretation would be an original epicentre in South-west Asia (Iran and Arabian peninsula – in line with my Pelasgian hypothesis), whence subsequent transmission to South East Asia and New Guinea.

- nor RH*CDe neither RH*C (both of which are very high in South East Asia, but not conspicuous in Africa);
- but we have a hit in the case of the Rhesus marker RH*D
- and perhaps also in the case of IGHGIG3*za;b0blb3b4b5,
- and GC*IF

For the latter three single-gene markers I give the global distributions:

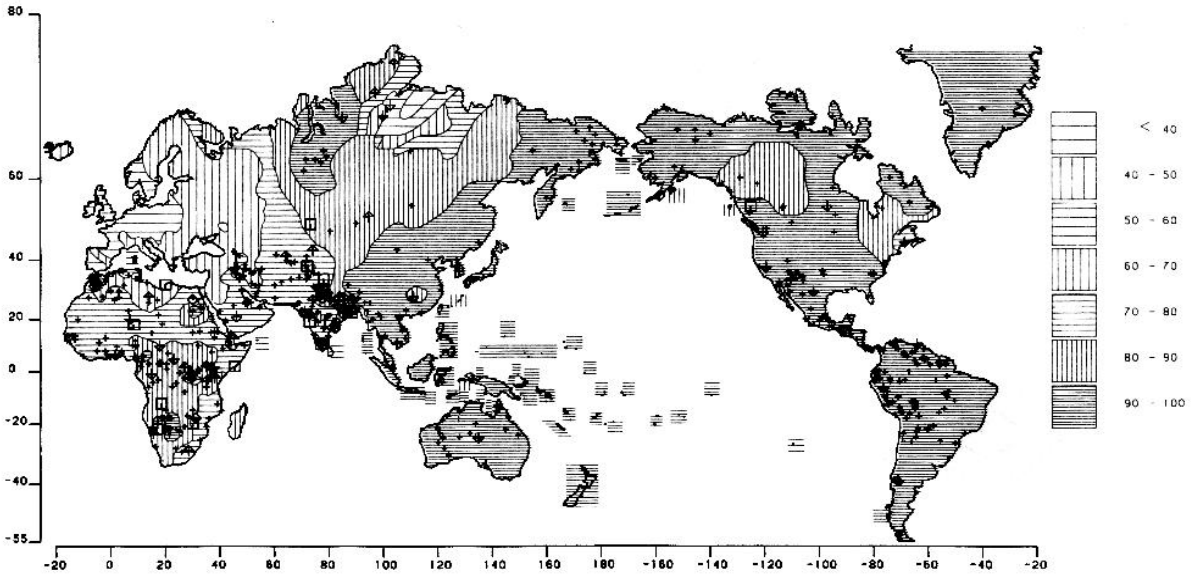


Fig. D. The global distribution of the RH*D Rhesus marker offers support for the idea of recent Asian substrate presence in Africa (Cavalli-Sforza et al. 1994: app. 79).

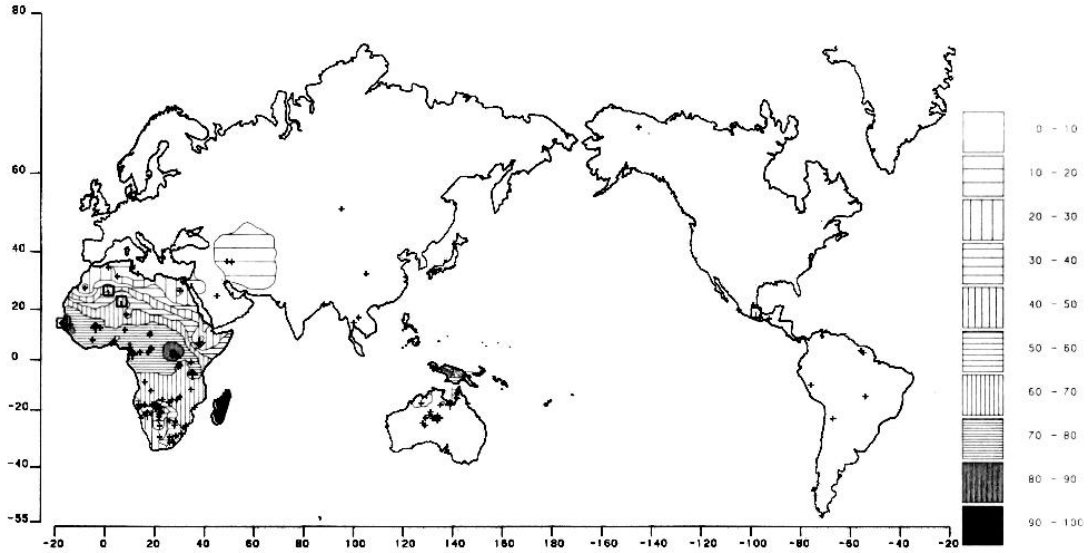
As is manifest from Fig. D, the RH*D marker obtains in most parts of Africa frequencies that are relatively low by global standards (although normal for the Western Old World – for the same pattern obtains in Europe); in Central Africa (from the Northern to the Southern savannah, with the exception of Mozambique and Eastern South Africa) frequencies rise to intermediate levels found in certain parts of North America and Northern Eurasia; high African frequencies at a par with common levels in the New World, South East and East Asia, Oceania and Australia are reached in four regions of Africa:

(a) the Zimbabwe-Botswana Plateau,
(b) (b) the Western Grassfields of Cameroon,
(c) (c) Upper Egypt, and
(d) (d) the Eastern Maghrib.

Given the limited extent and fact that there are as many as four of them, these African areas look like *destinations* rather than *origins* of transcontinental gene transfer. Of these four regions, (a) and (b) qualify as likely targets of substantial South East and East Asian influence in recent millennia – as is testified by the many Asian-African ethnographic parallels in such fields as divination, musical instruments, sculpturing styles, burial customs, kingship, etc. For Ancient Egypt, a possible Sunda connection was argued on the ground of possible Austric etymologies of major theonyms (van Binsbergen & Woudhuizen 2011: 370 f; also *cf.* Pedersen n.d.). The Maghreb case remains to be explained, possibly as the northernmost extension, into

the Mediterranean, of Sunda maritime influences from the Bight of Benin or from Egypt and Syro-Palestine.[12]

Fig. E. Global distribution of IGHGIG3*za;b0blb3b4b5 as a possible indication of recent Asian substrate presence in sub-Saharan Africa



The geographic distribution of IGHGIG3*za;b0blb3b4b5 (Fig. E) gives the impression of two narrow inland corridors: one stretching from Southern Sudan via the Western Grassfields of Cameroon, to Mali and Senegal; the other, less conspicuous, from Mozambique to Angola. In my provisional analysis of African-Asian continuities so far, my empirical ethnographic discussions of Sunda traits in Africa have concentrated on these two inland corridors. Admittedly, some of the data on these corridors are also amenable to an interpretation in terms of my Pelasgian hypothesis – as Pelasgian traits brought to sub-Saharan Africa as southern extensions of the cross-model, from the Late Bronze Age onward. Probably a combination of Sunda and Pelasgian models works best, but at any rate a considerable Asian substrate effect on the genetic makup sub-Saharan Africa appears to be detectable.

[12] The giant child of Poseidon / Water and Gē / Earth Antaios / Anti (a well-chosen parentage if Antaios is to symbolise seaborn influence from afar), one of the divinities associated with this region, has a namesake and counterpart in Egypt (Anti), and there are indications of migrations from Egypt via the Maghreb and then South across the Sahara in the Late Bronze Age (van Binsbergen & Woudhuizen 2011: 385 f). In the Gilbert Islands, Micronesia, Oceania, *anti* (perhaps from proto-Austronesian **a'ntiŋ* 'hear at a distance' (Starostin & Starostin 1998-2008: Austric etymology) is the term for 'gods', and 'ancestors' are called anti-ma nomata ('living gods') (Cotterell 1989: 50). Further West-Eurasian mythological echoes are found here – not only the general Oceanian echoes (fishing up land; invention of the sail; incessant pre-cosmogonic mating of the primal divine couple) but also the origin of death in humans' eating from a sacred tree, cf. *Genesis* 2:17; apparently not all parallels between the Western and Eastern ends of the Old World, as claimed by Oppenheimer, were spurious – *pace* van Binsbergen with Isaak 2008.

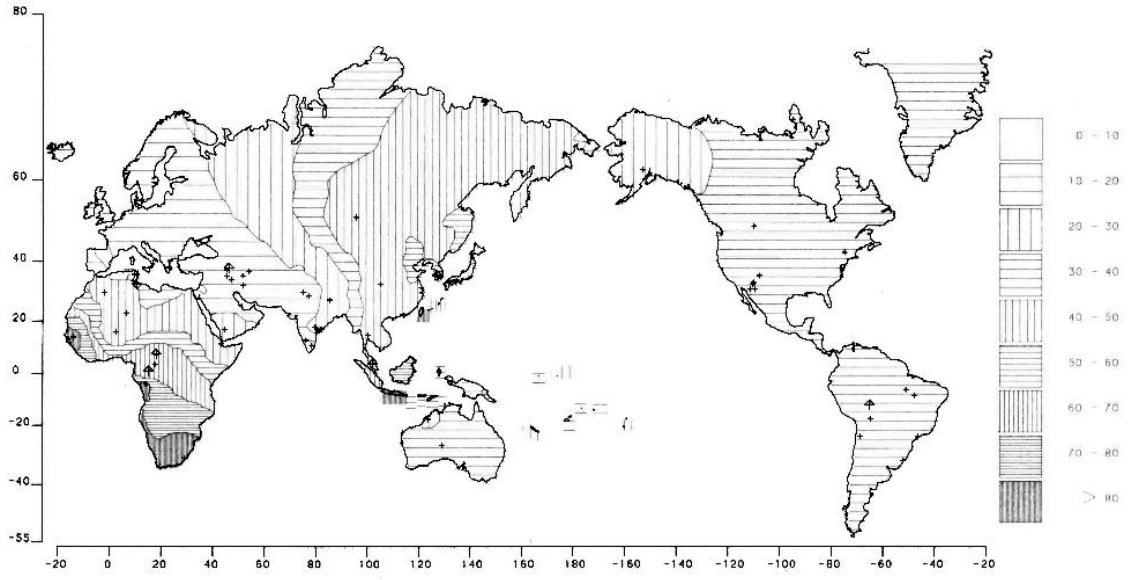


Fig. F. Global distribution of GC*IF as a possible indication of recent Asian substrate presence in sub-Saharan Africa

I suggest that in connection with the geographic distribution of GC*IF in coastal South and West Africa (Fig. F) we could point to the regrettable forced migration of inhabitants of South East Asia, Ceylon and Madagascar to South Africa (where they contributed greatly to the emergence of the so-called 'Coloured' segment of the modern South African population, and to the implantation of Islam in that country) and perhaps onward to West Africa (where the Isle of Gorée was a main transit port for slaves destined for the West Indies) under the aegis of the United East Indien Company, in historical times from the 17th c. CE onward

5. Conclusion

By and large, we have found substantial empirical, genetic evidence for the Oppenheimer / Tauchmann hypotheses of an extensive recent Asian substrate presence in sub-Saharan Africa.

In addition to this genetic evidence in support of the Oppenheimer-Tauchmann hypothesis, numerous points in support may be added from linguistic, archaeology, comparative ethnography, religious studies and history. Many of these will be discussed, or have been discussed, in some of the other papers at this conference .

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