

The pre- and protohistory of mankala board-games and geomantic divination in transcontinental perspective

A fresh look at my 1997 analysis

by Wim M.J. van Binsbergen

0. Introduction

When in 1997 I published my collection *Black Athena Ten Years Later* (a critical but constructive re-assessment of Martin Bernal's *Black Athena* thesis; Bernal 1987-2006) as a special issue of the archaeological journal *TAAANTA* (van Binsbergen 1997a), my principal empirical contribution to that volume consisted of a long article entitled 'Rethinking Africa's contribution to global cultural history: Lessons from a comparative historical analysis of mankala board-games and geomantic divination' (van Binsbergen 1997b).

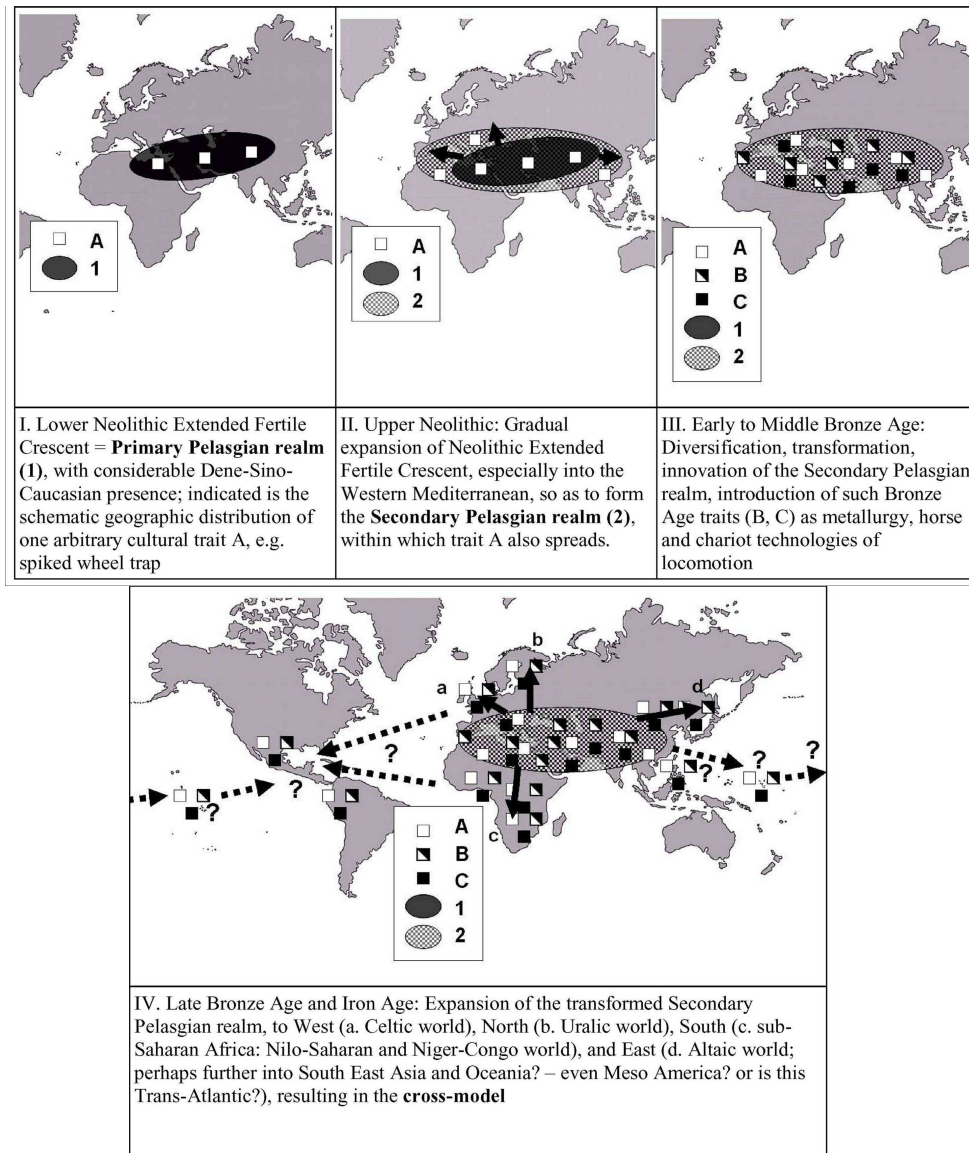
Mankala is the academic name for a widespread board-game, played on two or more rows of holes, over which the players distribute and redistribute tokens (stones, nuts, etc.) according to intricate rules.

Geomancy is a widespread family of divination systems, based on the systematic generation (by locally standardised stochastic methods involving man-made random generators) of formal configurations (usually consisting of a number of superimposed lines, where each line can take either of two values, e.g. broken or unbroken, one dot or two dots; see Table 1 and Fig. 13 below); the nature and combination of such configurations is then interpreted in divinatory terms (*cf.* van Binsbergen 2005 and in press (b), with extensive references cited there).

In the fifteen years that have past since the *TAAANTA* collection was published, I have continued to grapple with mankala, geomancy, the *Black Athena* debate, and transcontinental continuities – in fact, these themes have come to dominate my research. When in 2011 an expanded and updated version of the *TAAANTA* collection was published, my 1997 analysis was reprinted there in its original form and could not be updated. The present article contains such an update, which is in line with my overall criticism of Bernal's

Black Athena thesis, and the alternative model ('the Pelasgian hypothesis') which I advanced in my 2011 concluding chapter (as well as in van Binsbergen & Woudhuizen 2011; for an overview see Fig. 1).

Fig. 1. Diagrammatic representation of the Pelasgian Hypothesis



In the present paper, I limit myself to presenting the distributional world maps for the two formal systems of mankala and geomancy; the bibliographic references for the specific attestations / data points, and for the wider analytical and theoretical context may be found in the 1997 article. In the present article I limit myself to those, already sufficiently lavish, references that specifically inform the update.

The present analysis makes reference to several concepts from my Diachronic Aggregative Model of Global Mythology (van Binsbergen 2006a, 2006b, 2010), which seeks to trace and explain the unfolding of world mythology since the emergence of Anatomically Modern Humans in Africa c. 200 ka [ka kilo years, = millennium] BP [Before Present]. Under the ‘Out-of-Africa’ hypothesis, now generally accepted by specialists, Anatomically Modern Humans only left Africa to spread to other continents c. 80-60 ka BP. There are substantial indications (notably in the existence of a long list of present-day cultural universals; cf. Brown 1991) that when leaving Africa, Anatomically Modern Humans had at their disposal a package, not only of common genes (by which we could trace their emergence in Africa and their subsequent global dispersal), but also of common socio-cultural traits, developed inside Africa and subsequently, as a result of the ‘Out-of-Africa’ Exodus, spread all over the world. This socio-cultural package I have called ‘*Pandora’s Box*’. As expressions of humans’ freedom of association and invention, unhindered by the limitations of space, time and logic to which more practical endeavours are subjected, myths, like other literary, artistic and religious products of the imagination, exist in a dazzling, ever proliferating variety. Therefore, in order to create the conditions for comparability in the field of comparative mythology, we need to distinguish a quite limited number of types and themes. In my approach I have drastically reduced (hence ‘Aggregative’) the variety of myths to a few dozen ‘*Narrative Complexes*’ or *NarComs*, each of which covers, inevitably, a vast and rather heterogeneous domain of implications and associations. This enabled me to identify, for instance, twenty different *NarComs* in an extensive corpus of African cosmogonic myths (‘creation myths’) on the basis of which I formulated my Model in the first place (2006a, 2006b). Out of these twenty *NarComs* (to whose number I have had to make some additions when I applied the Model of other research questions and corpora of data, e.g. flood myths; cf. van Binsbergen with Isaak 2008), through a complex strategy of triangulation, distribution analysis, close reading, etc., I isolated a handful which, I argue, already made part of ‘*Pandora’s Box*’. Moreover, I have maintained that the post-Exodus transformation and innovation of mythical themes originally contained in the pre-Exodus ‘*Pandora’s Box*’ took place, not continually and at random, but in concentrated settings in space and time, which I have called *CITI*: Centres of Intensified Transformation and Innovation. These settings may be identified, more or less, not so much by looking for prehistoric mythologies (which outside rock art and mobile art left few traces if any), but by tracing the emergence and ramifications of new modes of production (both within and beyond hunting and gathering), and of new linguistic macrophyla, which under the *Borean and *Nostratic hypotheses (Starostin, Fleming, Illich-Svitych, etc.) constitute the largest language groups – for whose emergence and ramification we now have sophisticated methods at our disposal: qualitative historical-comparative linguistic methods, and multivariate analysis.

In addition to the ‘Out-of-Africa’ hypothesis, recent genetic research has also formulated the ‘*Back-into-Africa*’ hypothesis, according to which there has been a substantial population influx from Asia (both West and East Asia) into Africa in the last 15 ka (Hammer c.s. 1998; Cruciani c.s. 2002; Coia c.s. 2005; Underhill 2004). It stands to reason that

such a population movement also meant, to a considerable extent, *demic diffusion*¹ of culture traits owned by these Asian populations trickling back into Africa. Basically there would be two main routes from such an Asian influx into sub-Saharan Africa:

1. via North Africa, across the Sahara: along the time-honoured caravan routes and the Nile Valley
2. via the Indian Ocean, either crossing into Africa from the Arabian peninsula, or further South via the Swahili coast, Madagascar, or even around Cape of Good Hope, to the Atlantic West coast, even all the way to the Night of Benin and West Africa.

An example of mechanism (1) is the distribution of the spiked wheel trap (Fig. 2), which I am arguing elsewhere (van Binsbergen 2010, 2011, and n.d.) to constitute an ‘index fossil’ of ‘Pelasgian’ transcontinental cultural influx into the Mediterranean, the rest of Europe, Africa, East and South East Asia, and ultimately Oceania.

Fig. 2. Global distribution of the spiked wheel trap (as typical of Pelasgian distributions



for sources of the data points: see van Binsbergen n.d.; Lindblom 1935; *inset* (obscuring a part of the world map where there are no attestations): modern spiked wheel trap from the Acholi people, Southern Sudan (Sparks 2006).

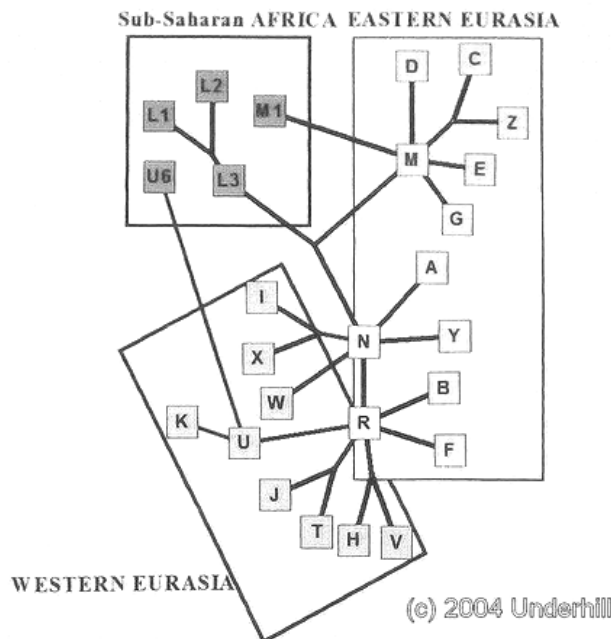
Mechanism (2) would be brought out by the many instances (cf. Dick-Read 2005; van Binsbergen, in press (a)) of South, South East and East Asian influences on present-day African socio-cultural traits, e.g. in the kingship, ecstatic cults, divination, language (notably the Austric affinities in Bantu) etc. on which my research has been concentrating the last decade. ‘Sunda’ would be an acceptable, overall term for the effects of mechanism (2), as long as we realise that in the context of transcontinental interaction this is an

¹ *Demic diffusion* takes place when socio-cultural traits travel as a result of geographical displacement of the human group that owns these traits. Since socio-cultural traits are, per definitions, learned through a social communication process, and not genetically inherited, demic diffusion is not the only, nor the most obvious, mechanism for socio-cultural traits to spread around the globe – simple *cultural diffusion* through communication but without major population movement is the alternative.

umbrella term, denoting not only specifically Indonesian / South East Asian influence, but also East and South Asian influence, notably upon Africa. Below we will see (Fig. 16) that this is not necessarily a one-way process, and that rather than speaking of ‘Sunda’ influence it would be appropriate to recognise, even from as early as the Bronze Age, a transcontinental maritime network that is both multcentred and multidirectional, in the sense that persons, goods and ideas may travel in any directions between any two points on the network.

While the distribution maps presented in this paper are directly based on empirical data, the tentative historical reconstructions based on these maps are not, of course – such historical reconstructions involve a complex act of interpretation, where different analysts are likely to come to different conclusions. The interpretations I arrive at are based on the handling of many such prehistoric distribution maps over the past decade, in many consecutive attempts to formulate and improve my Aggregative Diachronic Model, and the application to that model to specific analytical situations at hand, e.g. the Bronze Age Mediterranean (van Binsbergen & Woudhuizen 2011), the continuity between African and Eurasian mythologies (van Binsbergen 2010), and the formulation, in that connection, of my Pelasgian hypothesis. While I flatter myself that in the process I have developed a certain feeling for the patterns and theoretical implications as suggested by the distribution maps, the historical reconstructions presented here are merely provisional, and open to debate. Meanwhile, regrettably, it would take us too far to discuss, here, every data point and every step made in the tentative historical reconstruction – the reader is only presented with the result.

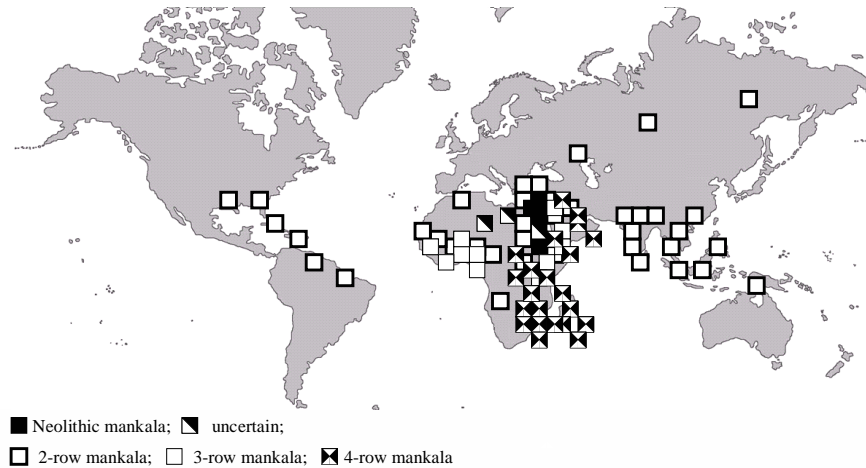
Fig. 3. ‘Back-into-Africa’ movement of specific haplo groups (after Underhill 2004)



1. Mankala

1.1. Mankala: Distribution of the various types

Fig. 4. Mankala: Distribution of the various types



Considering the world distribution of Mankala, against the background of the procedures and experience we have gained in the analysis of such distributions, we come to the following suggestions:

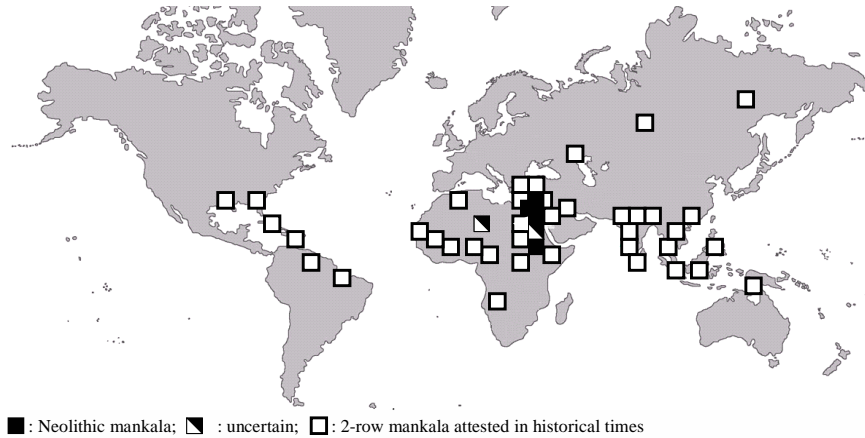
- The New World attestations are clearly associated with recent forced demic diffusion (Atlantic slave trade) in early modern times; this indicates that Mankala as a trait is not in Pandora's Box (a conclusion also suggested by the absence of attestations in New Guinea² and Australia), and not even in the later CITIs whose traits have made it to the New World.
- The few Neolithic attestations of Mankala (and there are no older ones) that were known to me in the 1990s are all in West Asia and adjacent Northeast Africa. Research in the last 10 years has further explored Chinese forms of Mankala, but has not adduced (to my knowledge) new archaeological evidence from East Asia that would challenge the primacy of the West Asia / Northeast African attestations.
- For a good view of the distribution of the 2-, 3- and 4-row varieties of Mankala as attested in historical times, it is best to consider the distributions separately, as in the following Figures. For proper time perspective, the Neolithic attestations are included in each Figure.

² However, Raabe n.d. reports a Mankala board from Arduni Island, Sepik New Guinea, no doubt under Indonesian influence. She stresses that the Mankala board is mainly known in Islamic Indonesia, as well as in Africa. This corroborates the general opinion in the literature that Islam has been largely responsible for the spread of this board-game.

1.2. Two-row mankala

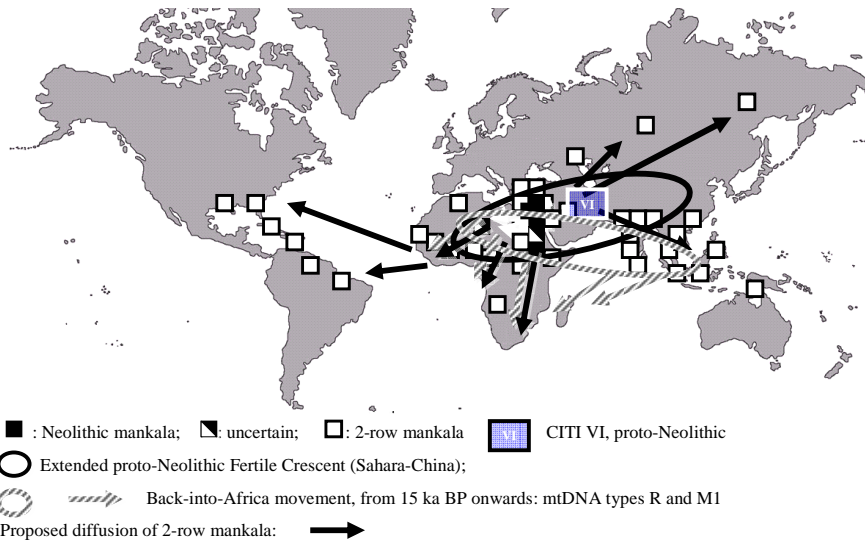
1.2.1. Two-row mankala: Distribution

Fig. 5. Two-row Mankala: Distribution



1.2.2. Two-row Mankala: Tentative historical reconstruction

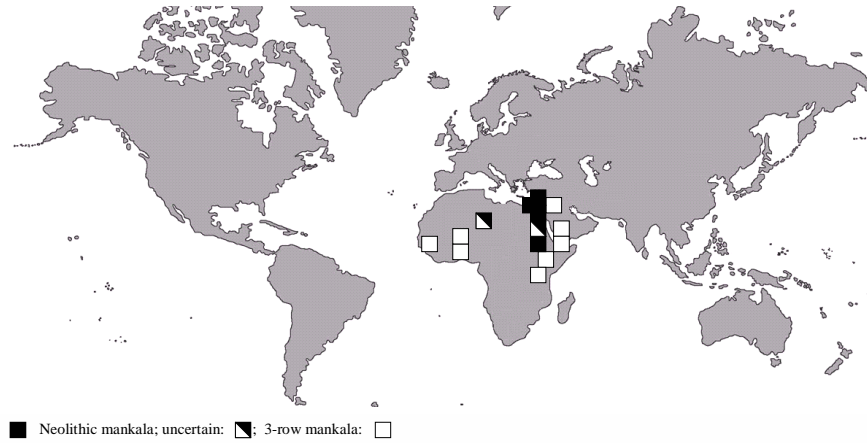
Fig. 6. Two-row Mankala: Tentative historical reconstruction



1.3. Three-row Mankala

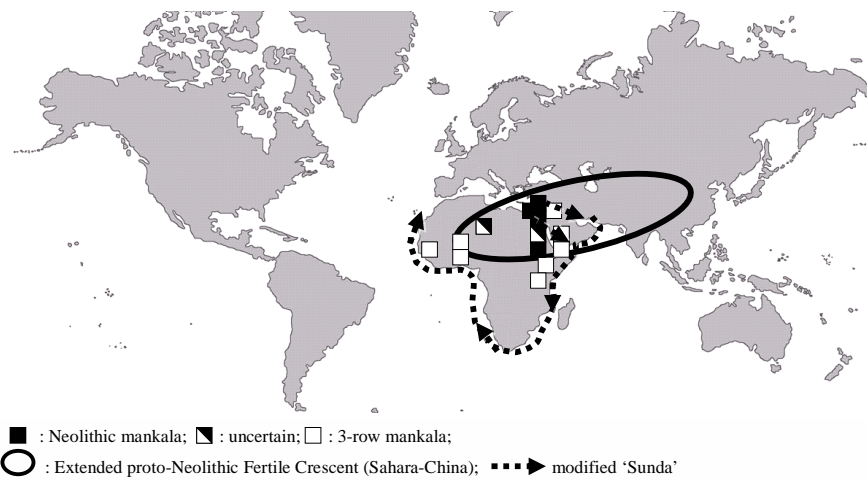
1.3.1. Three-row mankala: Distribution

Fig. 7. Three-row Mankala: Distribution



1.3.2. Three-row mankala: Tentative historical reconstruction

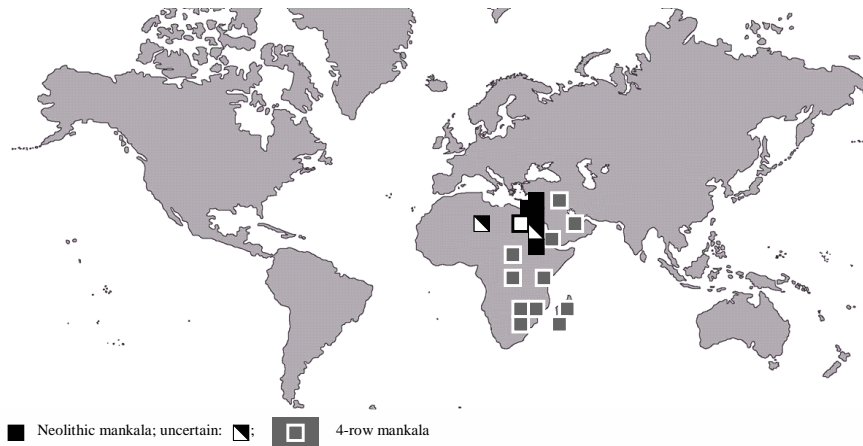
Fig. 8. Three-row Mankala: Tentative historical reconstruction



1.4. Four-row Mankala

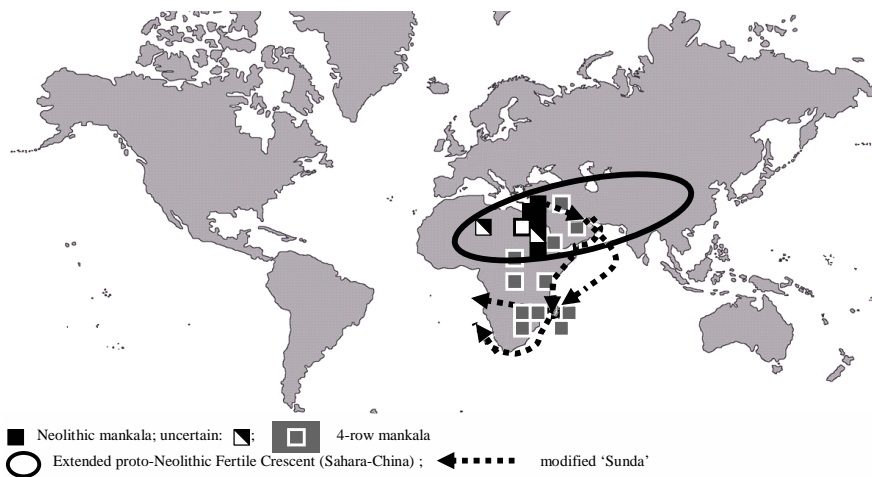
1.4.1. Four-row mankala: Distribution

Fig. 9. Four-row Mankala: Distribution



1.4.2. Four-row mankala: Tentative historical reconstruction

Fig. 10. Four-row Mankala: Tentative historical reconstruction



1.5. Discussion of the distributions of the various types of mankala

The distribution maps and the associated tentative historical reconstructions suggest the following:

- The two-row variant is the standard. It is the minimum required number of rows to make sense of the rules of the game. This is also the form of the Neolithic mankala boards. These may be taken to constitute prototypes from which two-row forms in Africa, Asia and the New World are derived.
- Three-row and four-row forms of mankala are relatively recent regional variants
- The patchy distribution of three-row mankala includes West Africa, Northeast Africa, and the Arabian peninsula. All these locations are near seashores. An overland diffusion is unlikely for it would have resulted in a less patchy and localised pattern and more interior attestations. I take it 3-row mankala was developed in Northeast Africa or the Arabian peninsula (near the oldest Neolithic attestations of 2-row mankala) and from there spread by seaborne trade, i.e. the ‘Sunda’ intercontinental maritime network – although in this case there is no suggestion of any direct Southeast or South or East Asian involvement. The parallel with geomancy, and the reasons discussed there, suggest a spread from East to West around Cape of Good Hope, rather than the other way around. We can only guess as to the time frame involved, but I suggest that this variant is less than three millennia old; in fact, its spread to West Africa may have occurred in the second millennium CE.
- The distribution of four-row mankala is quite similar to that of the three-row variant. However, for four row-mankala there are no West African attestations, whereas the East African attestations are far more numerous and over a far more extended area including the African interior. The presence of the four-row variant on Madagascar (where it is the dominant form of mankala) suggests a Sunda link in the narrower sense of the word, but the interior African attestations can hardly be explained in Sunda terms, *unless we accept extensive Sunda inroads into the interior*. For this, there are both genetic and comparative-ethnographic indications for the Mozambican-Angolan corridor (which is one of the areas where four-row mankala reaches deep into the interior). Similar corridors into the interior may be postulated for West Africa (the Cameroonian Western Grassfields), and for Central Africa, e.g. the well-known Bushong-Kuba sculpture of King Shamba holding a mankala board (Fig. 8) does show signs of a ‘Sunda’-related, ultimately Buddhist-influenced sculptural style. The genetic distributional data indicative of such inroads are brought together by Cavalli-Sforza c.s. 1994 – for a general discussion cf. van Binsbergen, in press (a). Again the distribution brings us to propose an epicentre of origin in Southwest Asia (Arabian peninsula, Persian Gulf) or Northeast Africa, and a time frame not extending further back than the beginning of the Common Era.

Fig. 11. Carving representing King Shamba of the Bushong Kuba holding a mankala board (courtesy Parrinder 1967)



The distribution of two-row mankala is more extended and more complex than that of the three- and four-row variants. This suggests greater antiquity for two-row mankala. Taking the oldest, Neolithic attestations in Southwest Asia and Northeast Africa as rough indications of the epicentre of origin (although this is, admittedly, a risky procedure), we may discern the following phases in our historical reconstruction:

1. Extended proto-Neolithic Fertile Crescent (Sahara-China), CITI VI. As I have argued extensively in the specific context of board games (van Binsbergen 1995, 1996, 1997b), the Neolithic management of game and crops is mirrored in the players' manipulations during the mankala game; there also appears to be a link with the management of fluids, for which an irrigation context comes to mind.
2. The 'Back-into-Africa' movement from 15 ka BP onward, carrying something of the genetic and cultural context as under (1) into West Asia and Africa. This effect may be conspicuous in the case of the Namibian *//hius* game (Townshend 1976-1977), the remote ancestors of whose Khoi-San speaking practitioners may have brought the game from Central or West Asia, whence they came c. 10 ka BP – at least, so is claimed by Cavalli Sforza *et al.* 1994.

3. From the eastern end of (1), *mankala* appears to be diffused into Southeast Asia. Since this is a relatively late development into regions that are already fully populated by Anatomically Modern Humans, this appears to be cultural rather than demic diffusion. Contrary to, for instance, certain other NarComs (for instance e.g. the oldest flood myths, which I suggested to be subject to demic diffusion into Southeast Asia and Oceania in association with the owners of mtDNA type B), there is no indication that the spread of *mankala* into Southeast Asia is particularly associated with any one overall genetic type. If it were associated with mtDNA Type B, *mankala* would be far more widespread in Southeast Asia, and would not be totally absent (with one New Guinea attestation) in Oceania and Australia.
4. From the northern end of (1), *mankala* is sporadically diffused into Central and North Asia, again probably not through demic diffusion but on the wings of other relatively recent cultural currents, such as the spread of Buddhism and of Islam – world religions which have been known to be instrumental in the spread of other cultural traits, e.g. musical instruments, musical styles, styles of dress and ornamentation, ecstatic cults, etc. Let us not forget that our oldest documentary source on *mankala* is the Arabic *Kitāb al-Aḡāni* by Abu'l Faradj (897-967 CE).
5. Even though *mankala* has been known for over than a century as ‘the national game of Africa’ (Culin 1896), the presence of *mankala* in sub-Saharan Africa may be mainly due to the same ‘Pelagian’ mechanism (see above) as that which seems to have brought the spiked wheel trap to Africa, overland via Northeast Africa and across the Sahara, from a West Asian source. Probably, however, there was also the Indian-Ocean-based, ‘Sunda’, cultural influence from West, South, South East and East Asia: possibly along the Mozambican-Angolan corridor, and even more probably in West Africa, where ‘Sunda’ traits appear to abound (food crops, xylophones, ecstatic cults, kingship, etc.). My recent research into Africa’s transcontinental continuities suggests that Sunda-associated, Buddhist-orientated states were established in Southern and South Central Africa around the turn of the second millennium (Mapungubwe and Great Zimbabwe are cases in point, *cf.* the Venda with Hakata tablets and divination bowls – but it looks as if there were also extensions to the north, the Zambezi and Lualaba regions), and the distribution pattern of four-row *mankala* in these parts of Africa is suggestive of Sunda influence.
6. We have already dealt with the isolated New Guinea case
7. Finally, from West Africa 2-row *mankala* spread to the New World in the context of the forced demic diffusion of the trans-Atlantic slave trade.

Similar to the *mankala* game, and sometimes discussed in that context, is the *dara* game, whose attestations in historical times are given in Fig. 12. There has been a tendency to consider the game associated with Arabs or Bedouins, and to see the Sahara as its original home. However, the fact that its attestations are predominantly coastal, and all over Africa, suggests that *dara*, too, may reflect Sunda maritime influence.

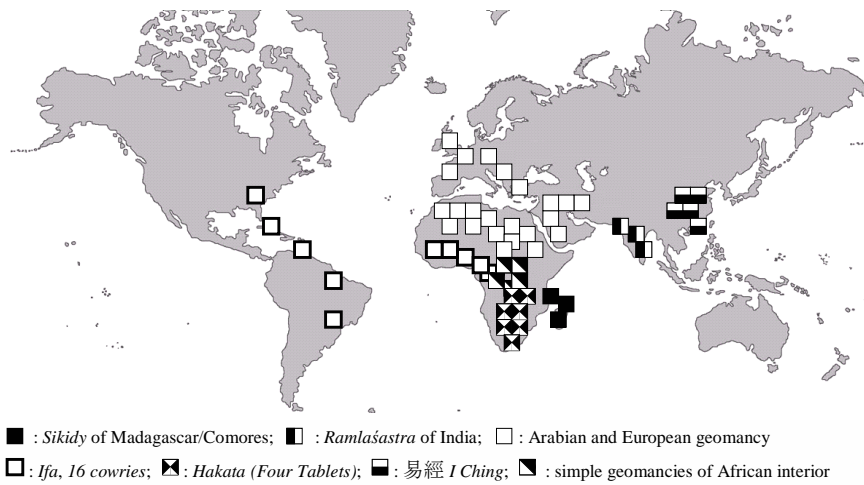
Fig. 12. Distribution of the dara game



2. Geomancy

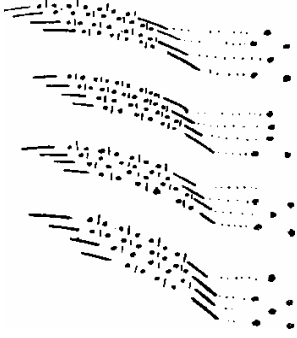







2.1. Geomancy: Distribution

Fig. 13. Geomancy: Distribution



To a considerable extent, the history of geomancy is the history of its random generators and notational systems. The following Table 1 gives an impression of the various random generators used in the extensive distribution area of geomancy.

Table. 1. Alternative random generators in transcontinental forms of geomancy and related forms of divination.

			
<p>'hitting the sand' with a stick (Islamic <i>'ilm al-raml</i>)³</p>	<p>throwing of sticks (East Asia)⁴</p>	<p>throwing of coins (East Asia)⁵</p>	<p>throwing of temple-blocks (East Asia) (author's collection)</p>
			
<p>geomantic dice (India, Africa)⁶</p>	<p>clockwork emulation of the geomantic process: an Islamic divinator machine of the early 2nd millennium CE⁷</p>	<p>throwing of cowries (West Africa) (author's collection)</p>	<p>throwing of a divining chain (West Africa) (author's collection)</p>

³ el Tounisi 1845.

⁴ Michael 1999-2008.

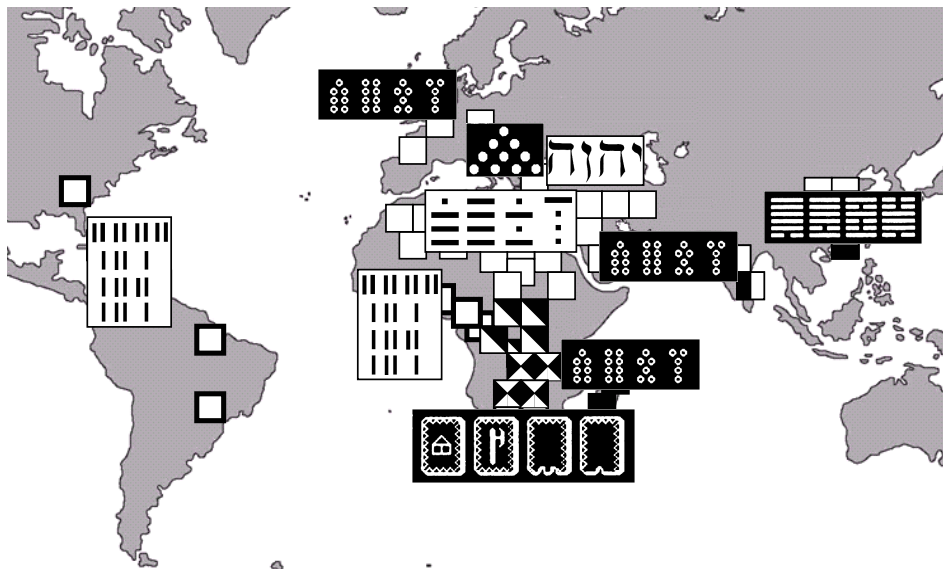
⁵ Laurel 2001-2009.

⁶ Cf. Pirzada 2011.

⁷ Hosken n.d.



Fig. 14. Comparing geomantic notational systems worldwide (legend as in Fig. 13; Pythagoras' tetractys and Ancient Israelite tetragrammaton shown as early expressions of a four-element system leading to proto-geomancies in Mediterranean Late Antiquity)



⁸ Robbins & Campbell 1990; Rodrigues de Areia 1985; with kola nuts: Nassau 1904: 207f ; Bosman 1967 [1704] : 152ff; Dennett 1968 [1910] : 149. The coin is included for size comparison only – although often random generators including coins are mixed in divinatory usage.

2.2. Distribution of geomancy: Discussion

As compared with the mythical themes which have an antiquity of several, often tens of millennia (some even go back to Pandora's Box, c. 80 ka BP), and even with mankala for which we have Neolithic archaeological attestations, geomancies as highly specific formal systems have a much shallower time depth, and their high degree of formal specificity makes us reluctant to consider the worldwide variants as mere parallel inventions – much more likely, they are scions of the same tree

- The oldest textual and iconographic attestations of the Chinese geomantic representational apparatus (the 8 trigrams ☰, ☷, ☱, ☴, ☳, ☶, ☵, ☲, and the 64 hexagrams of 易經 *yì jīng* ('I Ching') e.g. ☰☰ ☱☱ ☲☲ ☳☳ ☴☴ ☵☵ ☶☶ ☷☷ etc., go back to the late 1st millennium BCE at the very earliest
- The oldest Arabian geomantic attestations, under the name of *'ilm al-raml* ('Sand Science') or *ḥaṭṭ al-raml* ('Sand Writing'), date from the late 1st millennium CE; considering the semantic, symbolic and representational correspondences, these appears to share a common cultural environment, perhaps a common origin, with *yì jīng*. The precise nature of that proposed communality is beyond our present, limited scope, but it is analysed in great detail in my recent monograph *Before the Presocratics* (van Binsbergen 2012). Given the extensive Chinese presence in the Indian Ocean and the Persian Gulf, and throughout the Central Asian interior, under the T'ang dynasty (end of 1st millennium CE) (also and especially in intellectual, philosophical and medical life), one might suppose that *'ilm al-raml*, which emerged in Islamic Iraq in the same period, was directly and mainly derivative from Taoist Chinese prototypes, notably *yì jīng*. However, while such influence cannot be excluded and is also detectable in other intellectual domains of Iraqi and Iranian culture around 1000 CE, there are strong indications that West Asian Muslims were all the more ready to adopt and transform a Chinese geomancy, because they were already familiar with an older proto-geomantic Old-World divinatory substratum that did not exclusively or predominantly derive from China, and that may have had ramifications into Africa (hence the North African connotations (cf. Steinschneider 1864, 1877) of the most famous geomancy, that of Muḥammad al-Zānātī). Some Sinologists have, rightly, stressed Indo-European (e.g. Tocharian and Khotan – but as it turns out especially Luwian-Hittite, i.e. West Asian) rather than Sino-Tibetan cultural affinities of the *yì jīng* symbolism.
- Hebrew, Greek (Byzantine) and Latin attestations of geomancy are several centuries younger than the Arabic versions, and, if genuinely geomantic (i.e., as Ibn Ḥaldūn argued (1980 [1377]), an adulteration of astronomically based astrology), they are evidently derived from pre-existing Arabian prototypes, although the extensive scholarly argument cannot be given here
- Indian *ramlaśāstra*, up to its very name (contrary to *śāstra*, 'knowledge', *ramla* has no Indo-Aryan etymology, but cf. the Arabic terms for geomancy cited above), is clearly derived, in the course of the second mill. CE, from an Arabian prototype

- Pre-modern African attestations are very rare – the oldest I know date from the 16th century (documentary) and the 17th century (archaeological).
- The attestations in the New World very clearly have a trans-Atlantic origin and spring from forced demic diffusion at the time of the slave trade (second half second millennium CE)

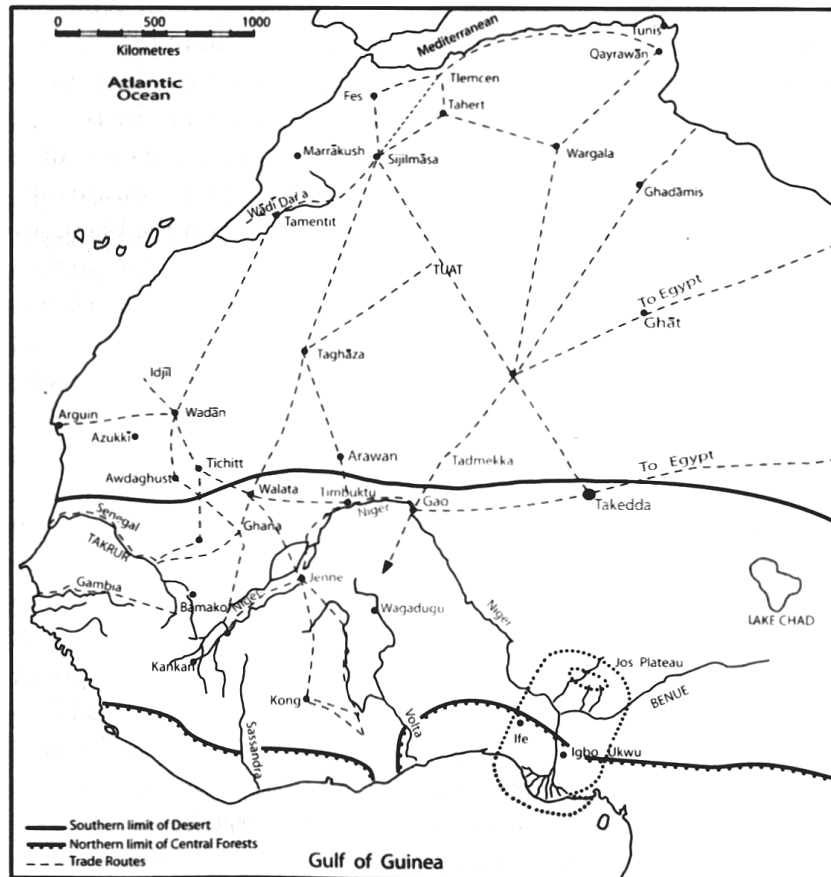
2.3. Geomancy in Africa

The African attestations are puzzling in their complexity:

- Early students of African geomancies (de Flacourt, Steinschneider, Burton, Trautman, Maupoil, *et al.*) readily spotted the continuity between Malagasy *sikidy*, West African *Ifa*, and the Arabian *‘ilm al-raml*
- I have meanwhile demonstrated that the Southern African family of geomantic divination belongs to the same field of continuity (van Binsbergen 1996a)
- The influence of the Arabian geomantic system on the Indian Ocean coast has been widely accepted by scholars
- Many scholars, especially African ones, and among them especially those of an Afrocentrist persuasion, have denied the indebtedness of the West African systems to the Arabian systems. Although nomenclature and symbolism are similar, overland trade routes (Levtzion & Hopkins 1981; I owe this reminder to Dick-Read 2005) make a direct influence from the Arabian world into the Bight of Benin unlikely – we are rather persuaded to rely on the detour from the Indian Ocean along Cape of Good Hope (the same detour which cowries, ecstatic cults, bananas, taro, and other food crops appear to have taken on their way to West Africa).
- Intermediate or simple geomancies have been attested all over the African interior, but the formal correspondences between the Arabian, West African, Malagasy and Southern African systems are too extensive and too specific than that these various elaborate African geomancies might conceivably derive from the simpler African forms; much more likely, the latter are adulterations of the more elaborate, originally literate forms, for which an ultimate origin *outside* Africa is the most likely.
- It is therefore even extremely unlikely (*pace* the Afrocentrist claims of many African writers on geomancy) that these simpler African geomancies, rather than being mere local adulterations, are the ultimate primal source of geomancies worldwide

Even if we could see these simpler forms as survivals from a substrate proto-geomantic system extending over much of Africa and possibly all over the Old World, and thus at the basis of the *yì jīng* symbolism and of *‘ilm al-raml*, what we find now in the form of simpler geomancies exists clearly in the periphery of the more elaborate forms from (early) modern times

Fig. 15. Trade routes in West Africa, second half of second millennium CE (source: Dick-Read 2005: 166 after Levtzion & Hopkins 1981); the point is that trade did not bring North African Islamic influence all the way to the Bight of Benin, so Ife is likely to have an Indian Ocean, circum-Cape background



Meanwhile we are struck by the extensive continuities that appear to exist between Chinese, Southern African and West African divinatory apparatus employed for the application of geomancy

- Divination vessels from the Venda and from West Africa are very similar
- and are even claimed to be continuous with those of Mesopotamia and Ancient Greece (Davis 1955)
- Meanwhile the Venda and West African divination bowls appear to be local appropriations, either of Chinese divinatory bowls with a 36-item zodiacal rim, or of Chinese nautical instruments (van Binsbergen 2012 and literature discussed there).

Also the influence of Chinese geomantic landscape symbolism upon Malagasy *sikidy* is obvious from the accounts available in the literature.

Attestations of geomancies are concentrated in only part of the Old World, and absent in New Guinea, Australia, Oceania and (with the exception of clearly Africa-derived borrowings in the latest centuries) in the New World. Also the European attestations (geomancy was a major divination form in Medieval and Renaissance occult sciences, and from there adulterated into a popular and peasant divinatory art) are manifestly borrowings from West Asian forms in Islamic trappings; Arabic texts on Islamic occult sciences, including geomancies and other forms of divination, were among the first to be translated into (Byzantine) Greek and especially Latin in the course of the European translation frenzy of the 11th and 12th centuries.

All this makes it crystal-clear that in the case of geomancy we have to do with a relatively recent and local development that can make no claim to inclusion in Pandora's Box (CITI I), and than can neither have belonged to the early post-Out-of-Africa CITIs whose products made it all the way to the New World.

This makes me suggest that the specific forms and interrelations of the African geomancies are best explained by

- a general East-West seaborne movement around the Cape of Good Hope
- formally in line with Oppenheimer's (1998) postulated Sunda westbound cultural and genetic expansion
- But rather more recently, and more specifically applied to Africa (about which Oppenheimer remains totally silent)
- The reports of the Phoenician Hanno's circumnavigation of Africa (c. 500 BCE) lend some further credibility to this proposed trajectory (Lacroix 1993; Illing 1899; Schoff 1913; Falconer 1797; Cory 1828).
- So does the history of cowries as an unmistakable trace of Indian Ocean trade (probably not all of it Early Modern and in West European hands) in Atlantic Africa – and, as said, of such foodstuffs as bananas and taro
- Isolated further archaeological evidence of Indian Ocean influence in West Africa is available in the form of the Roman coin from Constantinian times found at Buea (Cameroon), one of a large number that spread in the Indian Ocean region as a result of extensive and relatively well studied Roman trade (e.g. the 1st c. CE *Periplus*), and that (in the absence of an Atlantic trade from Gibraltar down to the Bight of Benin) can only have reached West Africa by a sea voyage around the Cape of Good Hope (Dick-Read 2005; Bovill 1958: 41n).

Conceived as specifically related to Indonesia, therefore in the narrower sense, the Sunda model proposes major cultural and genetic inroads, from South East Asia, into

- the Persian Gulf,
- the Red Sea,
- the Mozambican-Angola corridor, and
- the Bight of Benin, whilst producing the highly Austronesian population of
- Madagascar, either directly from Indonesia, and via an intermediate stay at the East African mainland.

With the exception of the Red Sea region, all these region loom large in the distribution of geomancies, and if we adjust Oppenheimer's very long time scale and reduce 'Sunda' upon sub-Saharan Africa to a relatively recent phenomenon (Mediterranean Bronze Age and later – in other words the latest three millennia), the pattern of the distribution of geomancies would very well fit the Sunda model.

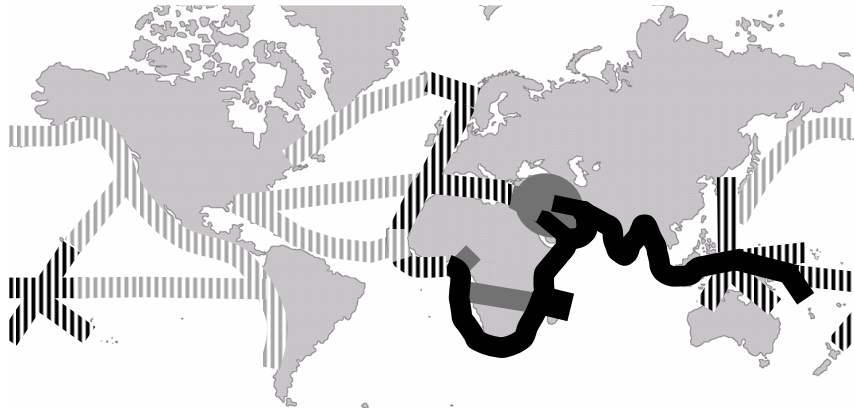
With this proviso that

1. we have to extend 'Sunda' so as to include, beside seaborne influences from insular South East Asia, also such influences from East and South Asia, and
2. that we qualify the suggestion of one coherent, identifiable, ethnically distinct culture which subsequently spreads monodirectionally through seaborne demic diffusion. Instead, what we have is rather an intercontinental maritime network for trade and cultural exchange (Fig. 16), in which *attested* items may primarily be seen to travel from East to West, but traffic (also of ideas and formal systems) in the opposite direction cannot in the least be ruled out (but, being counterparadigmatic, may be overlooked or suppressed both in modern scholarship and in ancient Asian sources!).¹⁰

¹⁰ Black African slaves were so common in T'ang China that the phenomenon gave rise to an entire literary genre featuring a Black trickster hero (Irwin 1977). During West European mercantile expansion, i.e. in Early Modern times, substantial Black African communities were established in India, Sri Lanka, and Indonesia, and these are likely to have spread African socio-cultural traits in Asia – some authors (e.g. Barnes 1975) even attribute the remarkably limited attestations of *mankala* in that region to this factor. The Afrocentrist educationalist and linguist Clyde Winters (1980a, 1980b, 1980c, 1981, 1983a, 1983b, 1984, 1985, 1988) has repeatedly stated the claim of extensive pre- and protohistorical West African influence on South and East Asia, and – not surprisingly, considering both the world politics of knowledge and the obscurity of his publicational venues – has attracted less mainstream attention than he deserves. However, as far as the Early-Modern Asian distribution of *mankala* is concerned, the extensive Islamic influence throughout South, South East and East Asia is probably a more likely explanation for *mankala* distribution than direct African influence can be. (Incidentally, the connections which Winters (1984, 1985) claims to exist Sumerian, Manding, Elamite and Dravidian remind us of the close links which also the prominent linguists Igor Diakonoff, and Paul Rivet (1929), saw between Sumerian and Austric, and on which I recently hit (in press (a) when finding a plausible Austric etymology for the name of the Sumerian's paradisiacal island Dilmun; apparently neither Winters' claim of affinities, nor the 'Sunda' trajectory in Fig. 15, are totally chimaerical – Winters' affinities, spanning the huge range from West Africa, West Asia to South Asia, could be explained as traces of Sunda / Austric influence.)

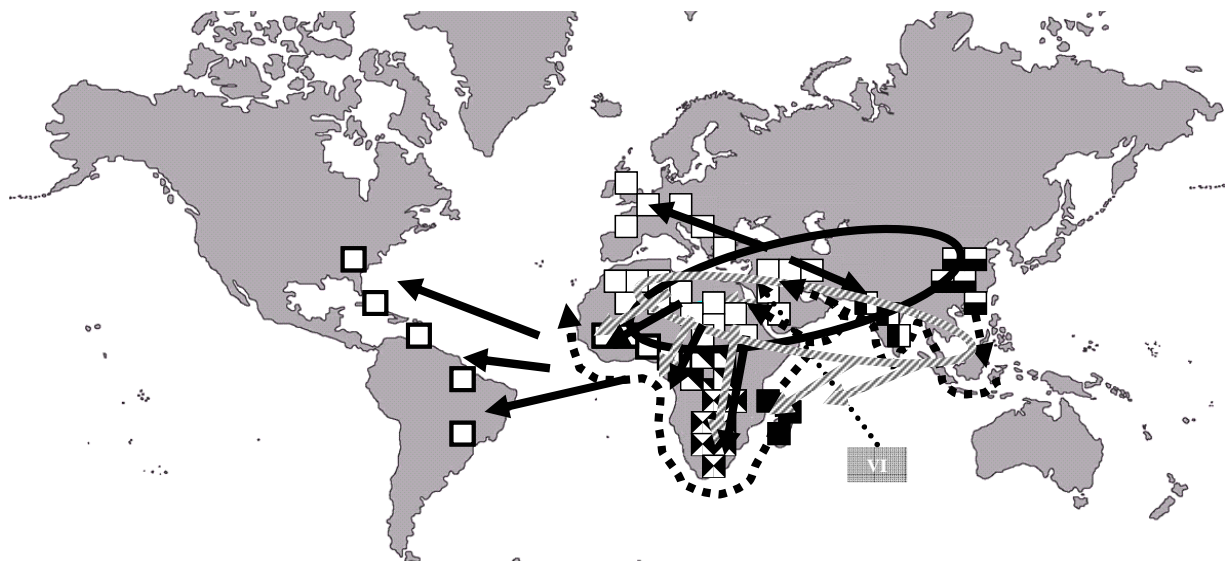
For the Early Modern Asian distribution of geomancy, a similar argument could be made as for *mankala* (perhaps Africa-derived, but more likely spread from West Asia under Islamic conditions), especially since the earliest documentary attestations of fully-fledged geomancy (not counting dubious protoforms from Mediterranean Late Antiquity) have all been in the Islamic / Arabic context. Yet it is remarkable that one of the earliest of these Arabic attestations (the use of the word *ḥaṭṭ* in the sense of divination, in al-Djahīz's (c. 776-868/9 CE) *Kitāb al Ḥayawān*, IV 369 (1988; cf. Pellat 1969 / 1967) comes from a medieval Islamic writer with established African ('Ethiopian') antecedents, whereas also al-Zānātī (cf. 1995), author of what was to become the most influential Islamic geomancy throughout the Indian Ocean and African regions, also derives from a North African Berber milieu (possibly with a fair element of Jewish influence, for which the Zanata tribe is well-known), continuous with the geomancy-orientated Sahara and West Africa.

Fig. 16. A proposed intercontinental, multicentred, multidirectional maritime network from the Early Bronze Age onward (from: van Binsbergen, in press (a))



the solid, thick black lines indicate the outlines of the 'Sunda' network as argued in van Binsbergen, in press (a) hatching indicates lesser certainty
 lesser contrast indicates even lesser certainty for trans-Atlantic sections of the proposed network
 solid grey is used to indicate the Mozambican/Angolan corridor, the Bight of Benin/Western Grassfields corridor, and the Mediterranean connections with the Red Sea and the Persian Gulf, all of which obviously are not maritime trajectories yet appear to have a marked Sunda association

Fig. 17. Proposed historical reconstruction of world history of geomancy



- Basic legend as in distribution map. ○ A. Upper Palaeolithic element cosmology
 ○ : B1. Extended proto-Neolithic Fertile Crescent as a pre-geomantic substrate (cyclicality, transformation); VI CITI VI
 ○ : B2. Back-into-Africa movement, from 15 ka BP onwards: mtDNA types R and M1
 → C, D. spread of geomancies from Pelasgian Realm; for details see text
 → : modified 'Sunda' (i.e. seaborne spread of E and SE Asian traits)

This allows us to tentatively reconstruct the history of geomancies in the Old World along the following lines:

- A. It is beyond our present scope to try and reconstruct the transcontinental prehistory of geomancies before the Upper Palaeolithic (for my extensive attempts in that direction, see van Binsbergen 2012, and in press (b)); ultimately the idea of divination by the earth (the literal meaning of ‘geomancy’) seems to derive from the NarCom ‘the earth as primary’, which was already in Pandora’s Box in pre-Exodus Africa.
- B. We may postulate an Extended proto-Neolithic Fertile Crescent (from Sahara-to-China) as a proto-geomantic substratum, emanating from CITI VI (proto-Neolithic) c. 15 ka BP. This proto-geomantic substratum was gradually carried West and South, into sub-Saharan Africa and Europe, as part of the Back-into-Africa movement, from Central Asia 15 ka BP onwards: mtDNA types R and M1. Hence it is not really contradictory that we may suspect proto-geomancies to have existed both at the eastern (China) and at the western (Sahara) end of the Extended Fertile Crescent. In all probability, an element-based cosmology emerged within this worldview (van Binsbergen 2012), which moreover was informed by the emergence of shamanism and of naked-eye astronomy
- C. Probably more important, certainly more tangible, than this Upper Palaeolithic / proto-Neolithic complex, was the crystallisation of themes of *cyclicity* and *transformation* within the already widely established element cosmology. These themes became part of the emergent Pelasgian socio-cultural package, which, emerging in West Asia in Neolithic times, during the Bronze Age spread into the Mediterranean and, while being transformed and innovated, subsequently spread in all four directions (my so-called ‘cross model’), including East to China, South Asia, South East Asia and even to some extent to Oceania – and South to sub-Saharan Africa, either via North Africa or via the Indian Ocean route. Whatever its pre-Bronze Age antecedents, geomancy thus became a prominent Pelasgian trait distributed over many parts of Asia and Africa.
- D. From this common Bronze Age / Pelasgian substrate, we can trace a number of parallel developments:
 - In Western Eurasia a formal and explicit four-element cosmological system develops at least a millennium before the Presocratics, but it is by explicit reference (notably by Plato and especially Aristotle) to the mid-1st millennium Greek Presocratic philosophers that the four-element system becomes standard in that region, and that proto-geomancies begin to be sporadically and tentatively formulated on its basis – for instance in the neo-Pythagorean and Talmudic contexts
 - In China, under demonstrable West Asian influence during the 2nd and 1st millennium CE, the basic symbolism of trigrams and hexagrams is developed as a general wisdom cosmology which allows for a divinatory application and which, given the regional cultural and political dominance of China, also comes to inform the cosmologies of Korea, Japan, Tibet, and continental South East Asia

- In °Abbāṣīd Iraq, by the end of the first millennium CE, and under peripheral Chinese influence (maritime trade, Silk Route, T'ang political expansion), the 'Pelasgian' geomantic substrate develops into °ilm al raml. From there it spreads, meanly by sea, to India as ramlāśastra, and also to Madagascar and the Comores, engendering the sikidy divination system. Subsequently, it follows the 'Sunda' Old-World maritime network, reaches Southern Africa where it surfaces as Hakata divination with divination tablets and Venda divination bowls. Rounding, like the 'Sunda' 'phantom voyagers' (Dick-Read 2005) that are its presumed agents of spread, Cape of Good Hope, and following the Atlantic African coast, this Iraq-derived geomancy reaches West Africa, where it is substantially localised as Ifa and Sixteen Cowries, without however dropping the tell-tale details of its notational system, its 2ⁿ-based interpretational catalogue, and the latter specific lists of meanings and associations. The geomantic dice prevalent in ramlāśastra consist of four cubes (preferably ivory), marked on four sides with dotted geomantic configurations, pierced, and strung upon a rigid pin around which they can freely revolve – so as to produce one of the sixteen configurations at every throw; of this system, the geomantic kpelle strings (consisting of four tassels ending in coins or other tokens capable to taking two different values) and the Southern African Hakata divinatory tablets (four marked tablets made of ivory or wood, and thrown so as to produce any of the 16 configurations) may be considered straightforward, systematic transformations (see Table 1).
- Meanwhile the Arabian geomancy spread, via Persia, Byzantium, and via Arabian and Jewish intellectuals at Southern European courts (Islamic, Sicilian, Norman, Spanish, Portuguese etc.) and centres of learning, to European medieval secret sciences, to develop in Renaissance magic of NW Europe, and finally to end up as parlour games and peasant divination (Punktierkunst) in West and Central Europe.
- From West Africa, geomancy spread to the New World in the context of trans-Atlantic forced demic diffusion at the time of the slave trade
- And today, both West Africa (foremost Nigeria and Benin) and the New World (Cuba, and the Southern USA) are major centres for the further spread of African geomancy among people of African and European extraction, particularly via the Internet.

3. Conclusion on geomancy, mankala, Afrocentrism, and Bernal (2012)

We see that my passionately Afrocentric argument of 1997 needs to be thoroughly revised. Neither for geomancy, nor for mankala, can we maintain a sub-Saharan African origin, now that (aided by the greatly enhance search facilities of the Internet and the digitalisation of academic libraries worldwide), we have added fifteen years of focused data collection to our 1997 data base, we moreover have refined the analytical and conceptual tools to approach the distributional analysis of formal cultural systems rather more rigorously and methodically, and now that recent developments in genetics, com-

parative linguistics and comparative mythology have actually provided the models against which to situate the historical interpretation of the distribution maps of specific cultural traits.

What remains is the realisation – so beautifully brought out by the complex stories of *mankala* and geomancy – that Africa is very much a part of the wider world and has always been just that, culturally, genetically, and linguistically.

What was not yet clear to me in 1997, is that we must combine a number of greatly disparate phases in order to account for the African involvement in the wider world:

1. Out of Africa, 80-60 ka BP; until then Pandora's Box was fully African
2. Back into Africa movement from c. 15 ka BP onwards, which brought back into Africa many traits which had meanwhile (ever since the Out of Africa migration) percolated, transformed, been innovated, and added to within the Asian continent
3. The forced demic diffusion from Africa in the context of the trans-Atlantic slave trade
4. Very recent globalisation of the last hundred years or less, which meant for a worldwide percolation of cultural traits and initiatives, in which African traits (music, dance, rites, therapies) were particularly successful in intercontinental transmission and reception.

Ironically, none of these four movements tallies with Bernal's *Black Athena* thesis, and in fact, that thesis' secondary, Afrocentrist reformulation (inspired by a combination of (3) and (4)) *grosso modo* goes against (2).

Bernal has been cited, and has sometimes flattered himself, as an amazing case of being right for the wrong reasons. At the 2008 Warwick international conference on his work, his *Black Athena* thesis was more or less canonised as a part of mainstream cultural history. However, my contributions to the debate, reprinted in 2011 under the carefully chosen title *Black Athena Comes of Age*, has intended to question such canonisation. The more I think about Bernal's *Black Athena* thesis ('total socio-cultural dependence of Ancient Greece upon Ancient Egypt, and in the later Afrocentrist reformulation, total dependence of Ancient Egypt upon prehistoric sub-Saharan Africa'), and the more I reap the benefits of the magnificent inspiration it has given me and other scholars over the past twenty-five years, the more I realise that, when all is said and done, Bernal is especially a case of simply being wrong for the wrong reasons – amongst which loom large: a passion for ideology and for *ad-hominem* arguments, and the desire to make a lasting imprint on the history of ideas.

4. References

al-Djahiz, Abu °Uthmān °Amr b. Baḥr, *Kitāb al-ḥayawān*, ed. A.M. Hārūn, Cairo, 1408/1988, 7 vols; earlier edition 1356-64/1938-45.

- al-Zanati, Sidi al-Shaykh Muḥammad., 1995, Treatise on the principles of sand-science: A provisional English translation by Rafat Badwy with the assistance of Wim van Binsbergen, of: al-Zanati, Muḥammad, *Kitab al-fasl al-kabir fi usul 'ilm al-raml: Wa-yalihi: Risala fi'l-Jafr wa-Qur'a li-Sayyidi Ja'far al-Ṣadiq* (Cairo, no publisher, 1341 H. / 1923 CE, Wassenaar: Netherlands Institute of Advanced Studies in the Humanities and Social Sciences, typescript.
- Barnes, R.H., 1975, 'Mancala in Kedang: A structural test', *Bijdragen tot de Taal-, Land- en Volkenkunde*, 131, 1: 67-85.
- Bernal, Martin Gardiner, 1987-2006, *Black Athena: The Afro-Asiatic roots of classical civilization. I, The Fabrication of Ancient Greece 1787-1987. II, The Archaeological and Documentary Evidence. III, The linguistic evidence*, New Brunswick, N.J.: Rutgers University Press.
- Bosman, W., 1967, *A New and Accurate Description of the Coast of Guinea*, New York: Barnes & Noble; reprint of 1704 ed.
- Bovill E.W., 1958, *The Golden Trade of the Moors*, Oxford: Oxford University Press.
- Brown, D.E., 1991, *Human universals*, New York: McGraw-Hill
- Cavalli-Sforza, L.L., Piazza, A., & Menozzi, A., 1994, *The history and geography of the human genes*, Princeton: Princeton University Press.
- Coia, Valentina, Giovanni Destro-Bisol, Fabio Verginelli, Cinzia Battaglia, Ilaria Boschi, Fulvio Cruciani, Gabriella Spedini, David Comas, & Francesc Calafell, 2005, 'Brief communication: mtDNA variation in North Cameroon: Lack of Asian lineages and implications for back migration from Asia to sub-Saharan Africa', *American Journal of Physical Anthropology*, 128, 3: 678-681.
- Cory, Isaac Preston, 1828, *Ancient fragments, containing what remains of the writings of Sanchoniatho, Berossus, Abydenus, Megasthenes, and Manetho : also the Hermetic Creed, the Old Chronicle, the Laterculus of Eratosthenes, the Tyrian annals, the Oracles of Zoroaster, and the Periplus of Hanno*, London: Pickering
- Cruciani, F., Santolamazza, P., Shen, P., Macaulay, V., Moral, P., Olckers, A., Modiano, D., Holmes, S., Destro-Bisol, G., Coia, V., Wallace, D.C., Oefner, P.J., Torroni, A., Cavalli-Sforza, L.L., Scozzari, R., Underhill, P.A., 2002, 'A back migration from Asia to sub-Saharan Africa is supported by high-resolution analysis of human Y-chromosome haplotypes', *American Journal of Human Genetics*, 70: 1197-1214.
- Culin, S., 1896, *Mankala: The national game of Africa*, United States National Museum Annual Report, Washington, pp. 595-607
- Davis, S., 1955, 'Divining bowls, their uses and origin: Some African examples and parallels from the ancient world', *Man*, 55 (143): 132-135.
- Dennett, R.E. 1968, *Nigerian studies: or: The religious and political system of the Yoruba*, London: Cass; first ed. 1910, London: Macmillan.
- Dick-Read, Robert, 2005, *The Phantom Voyagers: Evidence of Indonesian Settlement in Africa in Ancient Times*, Winchester: Thurlton.
- el Tounisi, Mohammed ibn Omar, 1845, *Voyage au Darfour par le cheykh Mohamed ebn-Omar a-Tounsy ou l'alignement de l'esprit par le voyage au Soudan et parmi les Arabes du centre de l'Afrique*, publié en arabe par le Dr Nicolas Perron, Paris: Duprat.
- Falconer, Thomas, ed. and tr., 1797, *The Voyage of Hanno: Translated, and accompanied with the Greek Text: Explained from the accounts of modern travellers, defended against the objections of Mr Dodwell, and other writers, and illustrated by maps from Ptolemy, d'Anville, and Bougainville*, London: Cadell.
- Hammer M. F.; T Karafet, A Rasanayagam, ET Wood, TK Altheide, T Jenkins, RC Griffiths, AR Templeton and SL Zegura , 1998, 'Out of Africa and back again: nested cladistic analysis of human Y chromosome variation', *Molecular Biology and Evolution*, 15, 4: 427-441.
- Hosken, Larry, n.d., 'England plus Paris: Part 12, magical device', at: http://lahosken.san-francisco.ca.us/departures/euro0/1554_magic.html.

- Ibn Khaldūn, 1980, *The Muqaddimah: An introduction to history, I-III*, translated from the Arabic by F. Rosenthal, second printing of second edition, Princeton (N.J.): Princeton University Press, 1980; first edition Bollingen Series XLIII, New York: Bollingen Foundation Inc, 1958; written in Arabic 1377.
- Illing, Karl Emil, 1899, 'Der Periplus des Hanno', *Jahresbericht des Wettiner Gymnasiums zu Dresden*, Dresden: Rammingsche Buchdruckerei, pp. 3-49.
- Irwin, G.W., 1977, *Africans Abroad: A documentary history of the Black diaspora in Asia, Latin America, and the Caribbean during the age of slavery*, New York: Columbia University Press.
- Lacroix, W.F.G., 1993, *Afrika in de oudheid: Een linguïstisch-toponymische analyse van Ptolemaeus' kaart van Afrika: Aangevuld met een bespreking van Ofir, Punt en Hanno's reis*, Delft: Eburon.
- Laurel, Fredda, 2001-2009, 'Introducing the I-Ching', at: <http://harusami.com/soul2soul/intuitive/Iching1.htm>
- Levtzion, N. & J.F.P. Hopkins, 1981, eds, *Corpus of Early Arabic Sources for West African History*, Cambridge: Cambridge University Press.
- Lindblom, Gerhard, 1935, 'The spiked wheel-trap and its distribution', *Geografiska Annaler, Supplement: Hyllningskrift Tillagnad Sven Hedin*, 17: 621-633.
- Michael, Lawrence, 1999-2008, 'Compassionate dragon healing', at: <http://www.compassionatedragon.com/home.html>.
- Nassau, Robert H., 1904, *Fetichism in West Africa: Forty years' observation of native customs and superstitions*, New York: Scribner.
- Parrinder, G., 1967, *African mythology*, London: Hamlyn.
- Pellat, C., 1969, *The life and works Jahiz: Translation of selected texts*, tr. from the French by D.M. Hawke, London: Routledge & Kegan Paul; German version: *Arabische Geisteswelt: Dargestellt von Charles Pellat auf Grund der Schriften von al-Gahiz 777-869*, Artemis Verlag, Zürich, 1967. Bibliothek des Morgenlandes
- Pirzada, Ali, Islamic Geomancy -- ilm Al-Ramal [sic], entry 5th February 2011, in: 'Dawat e Rohaniat', at: <http://dawaterohaniat.blogspot.com/2011/02/islamic-geomancy-ilm-al-ramal.html>
- Raabe, Eva, n.d. [ca. 2000]. *Reste einer im Krieg zerstörten Sammlung vom Maccluer-Golf, Nordwest-Neuguinea (Frobenius Expedition 1937/38)*, Series Raumkonzept und Texte, Frankfurt: Frobenius Institute.
- Rivet, P., 1929, *Sumérien et océanien*, Paris: Champion, Collection linguistique 24/ publ. par la Société de linguistique de Paris.
- Robbins, L.H., & A.C. Campbell, 1990, 'Prehistory of mungongo nut exploitation in the western Kalahari desert, Botswana', *Botswana Notes & Records*, 22: 37-39.
- Rodrigues de Areia, M.L., 1985, *Les symboles divinatoires: Analyse socio-culturelle d'une technique de divination des Cokwe de l'Angola (ngom bo ya cisuka)*, Coimbra: Universidade de Coimbra.
- Schoff, Wilfred H., ed. & tr., 1913, *The Periplus of Hanno: A Voyage of Discovery Down the West African Coast by a Carthaginian admiral of the fifth century B.C.*, Philadelphia: Commercial Museum.
- Sparks, Rachael, 2006, 'Acholi wheel trap', Southern Sudan Project, Pitt-Rivers Museum, accession number 1922.25.6, from Acholi, Sudan, collected by C.G. and B.Z. Seligman, 1922', at: <http://southernsudan.prm.ox.ac.uk/details/1922.25.6/> retrieved 6 July 2009 .
- Steinschneider, M., 1864, 'Über die Mondstationen (Naxatra), und das Buch Arcandam', *Zeitschrift der deutschen morgenländischen Gesellschaft*, 18: 118-206.
- Steinschneider, M., 1877, 'Die Skidy [sic] oder geomantischen Figuren', *Zeitschrift der deutschen morgenländischen Gesellschaft*, 31: 762-765.
- Townshend, P., 1976-1977, 'The SWA game of ||hüs (das Lochspiel) in the wider context of African Mankala', *Journal - SWA Wissenschaftliche Gesellschaft (Windhoek)*, 31: 85-98.
- Underhill, P., 2004, 'The South Asian Y chromosome landscape', paper presented at the 2004 Harvard Round Table, Department of Sanskrit and Indian Studies, Harvard University, Cambridge MA.
- Van Binsbergen, Wim M.J., 1995, 'Divination and board-games: Exploring the links between geomantic

- divination and mancala board-games in Africa and Asia’, paper read at the international colloquium 1995: Board-games in Academia’, Leiden, 9-13 April 1995; *revised version* ‘Diffusionism: geomantic divination and mancala board-games as instances of proto-globalisation’ at: http://www.shikanda.net/ancient_models/gen3/mankala.html .
- van Binsbergen, Wim M.J., 1996a, ‘Transregional and historical connections of four-tablet divination in Southern Africa’, *Journal of Religion in Africa*, 26, 1: 2-29;; fulltext also at: <http://shikanda.net/publications/ASC-1239806-062.pdf>
- van Binsbergen, Wim M.J., 1996b, ‘Time, space and history in African divination and board-games’, in: Tiemersma, D., & Oosterling, H.A.F., eds., *Time and temporality in intercultural perspective: Studies presented to Heinz Kimmerle*, Amsterdam: Rodopi, pp. 105-125; fulltext also at: http://shikanda.net/publications/time_and_temporality_for_kimmerle.pdf .
- van Binsbergen, Wim M.J., 1997a, ed., *Black Athena: Ten Years After*, Hoofddorp: Dutch Archaeological and Historical Society, special issue, *Talanta: Proceedings of the Dutch Archaeological and Historical Society*, vols. 28-29, 1996-97.
- van Binsbergen, Wim M.J., 1997b, ‘Rethinking Africa’s contribution to global cultural history: Lessons from a comparative historical analysis of mancala board-games and geomantic divination’, in: van Binsbergen 1997a, pp. 221-254; fulltext also at: <http://www.shikanda.net/publications/ASC-1239806-125.pdf> .
- van Binsbergen, Wim M.J., 2005, ‘Divination through space and time’, key note address, International conference, Leiden, National Museum for Ethnology (conveners: Philip Peek, Walter van Beek, Jan Jansen, Annette Schmidt): ‘Realities re-viewed / revealed : Divination in sub-Saharan Africa – Réalités revues / révélées: Divination en Afrique sub-saharienne, July 4 – 5, 2005; revised version at: http://www.shikanda.net/ancient_models/divination_keynote_leiden2005/web%20pages/keynote_divination_leiden_2005.htm
- van Binsbergen, Wim M.J., 2006a, ‘Mythological archaeology: Situating sub-Saharan African cosmogonic myths within a long-range intercontinental comparative perspective’, in: Osada, Toshiki, with the assistance of Hase, Noriko, eds., *Proceedings of the Pre-symposium of RIHN [Research Institute for Humanity and Nature] and 7th ESCA [Ethnogenesis in South and Central Asia] Harvard-Kyoto Roundtable*, Kyoto: Research Institute for Humanity and Nature (RIHN), pp. 319-349; also at: http://shikanda.net/ancient_models/kyoto_as_published_2006_EDIT2.pdf .
- van Binsbergen, Wim M.J., 2006b, ‘Further steps towards an aggregative diachronic approach to world mythology, starting from the African continent’, paper read at the International Conference on Comparative Mythology, organized by Peking University (Research Institute of Sanskrit Manuscripts & Buddhist Literature) and the Mythology Project, Asia Center, Harvard University (Department of Sanskrit and Indian Studies), May 10-14, 2006, at Peking University, Beijing, China; in press in: Duan Qing & Gu Zhenkun, eds., *Proceedings of the International Conference on Comparative Mythology*, Beijing; preprint at: http://www.shikanda.net/ancient_models/Further%20steps%20def.pdf
- van Binsbergen, Wim M.J., 2010, ‘The continuity of African and Eurasian mythologies: General theoretical models, and detailed comparative discussion of the case of Nkoya mythology from Zambia, South Central Africa’, in: Wim M.J. van Binsbergen & Eric Venbrux, eds., *New Perspectives on Myth: Proceedings of the Second Annual Conference of the International Association for Comparative Mythology, Ravenstein (the Netherlands), 19-21 August, 2008*, Haarlem: Papers in Intercultural Philosophy and Transcontinental Comparative Studies, pp. 143-225, also at: http://www.quest-journal.net/PIP/New_Perspectives_On_Myth_2010/New_Perspectives_on_Myth_Chapter9.pdf
- van Binsbergen, Wim M.J., 2011, ed., *Black Athena comes of age: Towards a constructive re-assessment*, Berlin / Boston / Munster: LIT; cf. <http://www.shikanda.net/topicalities/topicali.htm> , under ‘August 2011
- van Binsbergen, Wim M.J., 2012, *Before the Presocratics: Cyclicity and transformation as features of a substrate element cosmology in Africa, Eurasia and North America*, special issue, *Quest: An African*

Journal of Philosophy / Revue de Philosophie Africaine.

- van Binsbergen, Wim M.J., in press (a), *Exploring pre- and protohistorical continuity between South East Asia and sub-Saharan Africa: Stephen Oppenheimer's General and Special Sunda hypotheses as heuristic devices*, Haarlem: PIP-TraCS
- van Binsbergen, Wim M.J., in press (b), 'African divination across time and space: The typology, intercontinental connections, prehistory, and intercultural epistemology of sub-Saharan mantics' paper prepared for: Walter E.A. van Beek & Philip Peek, eds., *Realities re-viewed/ revealed: Divination in sub-Saharan Africa, based on the 2005 Leiden international conference*; more extensive version at: http://shikanda.net/ancient_models/divination_space_time_2008.pdf
- van Binsbergen, Wim M.J., n.d. [2010], 'The spiked wheel trap as a cultural index fossil in African prehistory: An exercise in global distribution analysis based on Lindblom's 1935 data' (pre-publication version; click for PDF), pre-publication version at: http://shikanda.net/topicalities/spiked_wheel_trap.pdf.
- van Binsbergen, Wim M.J., & Woudhuizen, Fred C., 2011, *Ethnicity in Mediterranean protohistory*, British Archaeological Reports (BAR) International Series 2256, Oxford: Archaeopress; fulltext at: http://shikanda.net/topicalities/Ethnicity_MeditProto_ENDVERSION%20def%20LOW%20DPI.pdf
- van Binsbergen, Wim M.J., with the collaboration of Mark Isaak, 2008, 'Transcontinental mythological patterns in prehistory: A multivariate contents analysis of flood myths worldwide challenges Oppenheimer's claim that the core mythologies of the Ancient Near East and the Bible originate from early Holocene South East Asia', *Cosmos: The Journal of the Traditional Cosmology Society*, 23 (2007): 29-80, fulltext at: http://shikanda.net/ancient_models/Binsbergen_Edinburgh_2007_%20for_Cosmos.pdf.
- Winters, C.A., 1980a, 'Are Dravidians of African Origin', *Proceedings] Second ISAS [International Symposium on Asian Studies]*, 1980, (Hong Kong: Asian Research Service, 1981b), pp. 789- 807.
- Winters, C.A., 1980b, 'A Note on the Unity of Black Civilizations in Africa, Indo-China, and China', *Proceedings PISAS 1979*, Hong Kong : Asian Research Servic.
- Winters, C.A., 1980c, 'The genetic unity of Dravidian and African languages and culture', *Proceedings of the First International Symposium on Asian Studies (PIIAS) 1979*, Hong Kong: Asian Research Service, 1980a.
- Winters, C.A., 1981, 'The Unity of African and Indian Agriculture', *Journal of African Civilization*, 3, 1: 103.
- Winters, C.A., 1983a, 'Blacks in Ancient China, Part 1: The Founders of Xia and Shang', *Journal of Black Studies*, 1, 2.
- Winters, C.A., 1983b, 'Possible Relationship between the Manding and Japanese', *Papers in Japanese Linguistics*, 9: 151-158.
- Winters, C.A., 1984, 'The genetic Unity between the Dravidian, Elamite, Manding and Sumerian Languages', *Proceedings] Sixth ISAS [International Symposium of Asian Studies]*, 1984, (Hong Kong:Asian Research Service, 1985) pp. 1413-1425.
- Winters, C.A., 1985, 'The Proto-Culture of the Dravidians, Manding and Sumerians', *Tamil Civilization*, 3, 1: 1-9.
- Winters, C.A., 1988, 'The Dravidian and Manding Substratum in Tokharian', *Central Asiatic Journal*, 32, 1-2: 131-141.