

The spiked wheel trap as a cultural index fossil in African prehistory

An exercise in global distribution analysis based on Lindblom's 1935 data

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ABSTRACT. Reading geographical distribution patterns and turning them into models of historical reconstruction of diffusion, is not only a work of science, but also a fine art, in which the experience gathered in the previous analysis of similar or complementary distributions contributes considerably to our perception and interpretation. In the present argument, the global distribution of one particular item of material culture will serve as an-example of such strategies in distributional analysis: *the spiked wheel trap*, a common hunting device in Africa and parts of Eurasia, but apparently not attested anywhere else in the world. Africa and Africans are commonly depicted as totally different from the rest of the Old World. Much of the author's work over the past two decades has been aimed at combating this misconception. The distribution pattern of the spiked wheel trap (first analysed by Lindblom in 1928 / 1935) is so pertinent to this question, that this implement may serve as an 'index fossil' in African prehistory, bringing out the merits of the 'Pelagian hypothesis' which the present author has recently advanced, and which is summarised by the end of the present argument. The far greater incidence on African soil, linked with the Afrocentrist hypothesis according to which major developments in global cultural history have an African origin, would tempt us to consider the spiked wheel trap as an African invention which gradually trickled into Eurasia. However, this paper argues the opposite model:

(a) a rather localised origin in the Neolithic Extended Fertile Crescent (by which is meant the extended region stretching from the then still fertile Sahara to China), probably in Central Asia;
(b) followed by spread, in the wake of the general diffusion of pastoral and agricultural technologies but particularly intensified with the rise of horse-riding and chariot technologies – both being technological innovations emerging in Central Asia c. 6 ka BP and 4 ka BP, respectively;
(c) not only were these pastoral technologies responsible for cultural spread and proto-globalising homogenisation of the Eurasian Steppe Belt from Anatolia to the Pacific – from the Late Bronze Age onward they also succeeded in making inroads into sub-Saharan Africa, both along the Nile valley and along Sahara desert routes (where rock art representations of chariots abound from the Late Bronze Age on).

Sparsely inhabited by hunter-gatherers that lacked both these specific formal cultural systems and the military technology that privileged their owners, the whole of sub-Saharan Africa was available for expansion of these new items. Hence their preponderance there in historical times, which however is to be interpreted in terms, not of origin, but of the occupation of an empty niche of cultural ecology. In the last two to three millennia, African cultures in sub-Saharan Africa consolidated themselves as a

result of the interaction between Palaeo-African populations and their cultural traits, on the one hand, and, on the other hand, inputs from outside Africa, including those from the Pelasgian realm of West Asia and the Mediterranean. The spiked wheel trap, however insignificant in itself, is an index fossil of the Pelasgian side of this process. The spiked wheel trap shares this position with a few other formal cultural systems, such as mankala, geomantic divination, and the belief in a unilateral mythical being, whose similar distributions we examine as a stepping-stone towards a summary presentation of the Pelasgian hypothesis.

key words: Pelasgian hypothesis; Hamitic hypothesis; Borean hypothesis; Out of Africa hypothesis; Back-into-Africa hypothesis; spiked wheel trap; distributional analysis; genetic, linguistic and cultural continuity Africa-Eurasia; mankala; geomantic divination; unilateral mythical being

1. Introduction

Reading geographical distribution patterns and turning them into models of historical reconstruction of diffusion, is not only a work of science, but also a fine art in which experience gathered in the previous analysis of similar or complementary distributions contributes considerably to our perception and interpretation. In this way we become gradually aware of the possible implications of distributional particularities, and can we build, refine, test, and if needed reject, our models of historical reconstruction.

For instance, if a common Eurasian trait (such as elaborate flood myths) also has an attestation in the New World, this has implications for the dating of that trait. The common assumption is that the New World was largely populated by migration from North-eastern Asia across the Bering Strait ca. 11 ka BP, which would suggest a *terminus ante quem* for the emergence of that trait, although recent research also made us aware of a continuous trickle of trans-Bering migrations in more recent millennia (Jett 2002). By the same token, state-of-the-art molecular genetics has revealed that Anatomically Modern Humans emerged in the African continent c. 200 ka BP, then only c. 80 ka BP made a first sally 'Out of Africa' along the Indian Ocean reaching the Andaman Islands, South East Asia, New Guinea and Australia but not spreading any further, only to populate the entire globe as a result of a second sally 'Out of Africa', c. 60 ka BP (Forster 2004). As a result, a trait which occurs in Africa, the Andaman Islands, New Guinea and Australia, but no where else, may be proposed to have been part of Anatomically Modern Humans' original cultural package (which I have termed 'Pandora's Box'), developed inside the African continent between 200 and 80 ka BP, and spread as a result of the first sally out of Africa.

In this way, by linking distributional patterns to roughly datable events and processes, I have tried to reconstruct the early history of the mythologies of Anatomically Modern Humans (van Binsbergen 2006, 2007).

In the present argument, the global distribution of an item of material culture will serve as another example of such strategies in distributional analysis: the spiked wheel trap, a common hunting device in Africa and parts of Eurasia, but not attested anywhere else in the world. Clearly, as a specialist in African religion and (proto-) globalisation, and as an intercultural philosopher my chief interest is not in hunting techniques as such, but in distributional clues to remote global cultural history. The questions of cultural diversity and the possibility or impossibility of intercultural communication, knowledge, and truth dominate today's world politics, and a theoretical and empirical understanding of remote cultural history greatly assists in identifying both the communalities and the differences between human cultures. As

an Africanist I have been particularly interested in one instance of such continuity, or discontinuity, that between Eurasia on the one hand and Africa on the other hand, as the two habitually distinguished components of the Old World. Whereas it has been customary to speak of Eurasia as a recognised continuous cultural domain, Ancient usage in terms of *Ethiopians* (Graeco-Roman) and *Kushim / Cushites* (Bible), reinforced by the history of conquest and marginalisation of Africa, and the attending racialism, in the last few centuries, has installed the image of Africa and Africans as being totally different from the rest of the Old World. Much of my work over the past 20 years has been aimed at dispelling this misconception. Here again recent developments in genetics have brought to light a major influx from Asia into sub-Saharan Africa from c. 15 ka BP onward.¹

We will see that analysis of the distribution pattern of the spiked wheel trap is highly pertinent to this question. Very widespread in Africa, this implement has only a very limited distribution in Eurasia. Form and function of the various types attested converge to such an extent that the Eurasian and African distributions must be considered as continuous, and reverting to a common historical prototype. The far greater incidence on African soil, linked with the Afrocentrist hypothesis according to which major developments in global cultural history have an African origin, would tempt us to consider the spiked wheel trap an African invention which gradually trickled into Eurasia.

Although I have repeatedly identified as an Afrocentrist, also in connection with these specific cultural systems, in the present paper I will argue for a different model:

- a rather localised origin in the Neolithic Extended Fertile Crescent (by which I understand the extended region stretching from the then still fertile Sahara to China), notably in Central Asia
- followed by spread, following the general diffusion of pastoral and agricultural technologies but particularly intensified with the rise of horse-riding technology and especially chariot technology – both being technological innovations emerging in Central Asia c. 6 ka BP and 4 ka BP, respectively (*cf.* Fig. 2).
- not only were these pastoral technologies responsible for cultural spread and proto-globalising homogenisation of the Eurasian Steppe Belt from Anatolia to the Pacific – from the Late Bronze Age onward they also succeeded in making inroads into sub-Saharan Africa, both along the Nile valley and along Sahara dessert routes (where rock art representations of chariots abound from the Late Bronze Age on; *cf.* Fig. 1); sparsely inhabited by hunter-gatherers that lacked these specific formal cultural systems and the military technology that privileged their owners, the whole of sub-Saharan Africa was available for expansion of these new items. Hence their preponderance there now, which however is to be interpreted in terms, not of origin, but of the colonisation of an empty niche of cultural ecology.

¹ Hammer *et al.* 1998; Coia *et al.* 2005; Cruciani *et al.* 2002; Underhill 2004.

Fig. 1. Chariots depicted in Saharan rock art

'Le dernier inventaire des gravures de chars en 1982, dénombre 631 exemplaires réparties dans le massif du Tassili n'Ajjer, le Hogger (Algérie), l'Aïr ou Azbine (Niger)' (Boudjou 2006)



Garamantes chariot, Garama, Libyan desert (Boudjou 2006)



Garamantes chariot, Libyan desert (The Oriental Caravan 2005)



Chariot in Saharan rock art (Becker *et al.* 2007)



Chariot depicted in Aïr mountains, Niger (Lyon 2004)

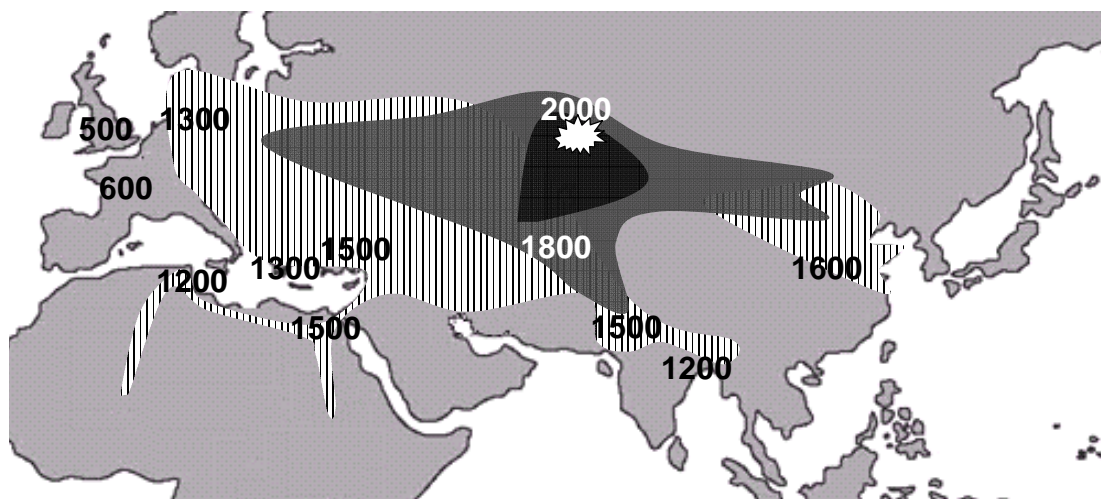
In the last two to three millennia, African cultures in sub-Saharan Africa consolidated themselves as a result of the interaction between Palaeo-African populations and their cultural traits, on the one hand, and Northern inputs, on the other.² The spiked wheel trap, however insignificant in itself, is an index fossil in this process.

The spiked wheel trap shares this position with a few other formal cultural systems, such as *mankala*, geomantic divination, and the belief in a unilateral

² Adopting the term coined by Cavalli-Sforza (*et al.* 1994), under Palaeo-African I understand genetic and cultural elements that, inside the African continent, have been in direct continuity with the 'pre-Out-of-Africa' genetic and cultural inheritance of Anatomically Modern Humans.

mythical being, whose distributions we will examine towards the end of this argument.

Fig. 2. The origin and diffusion of the chariot, from Kazakhstan, 2000 BCE³



Dates approximate by 0.1 ka. *White*: area of the earliest known spoke-wheeled chariots (Sintashta-Petrovka culture); *black*: 1900 BC: extent of the Andronovo culture, expanding from its early Sintashta-Petrovka phase; spread of technology in this area would have been unimpeded and practically instantaneous; *dark grey*: 1800 BC: extent of the great steppes and half-deserts of Central Asia, approximate extent of the early Indo-Iranian diaspora at that time; note that early examples of chariots appear in Anatolia as early as around this time; *vertical hatching*: combines 1700 BC: unknown, early period of spread beyond the steppes – and 1600-1200 BC: the Kassite period in Mesopotamia, rise to notability of the chariot in the Ancient Near East, introduction to China, possibly also to the Punjab and the Gangetic plain (*Rgveda*) and E and N Europe (Trundholm Sun Chariot), assumed spread of the chariot as part of Late Bronze Age technology; *dotted*: 1000-500 BC: Iron Age spread of the chariot to W Europe by Celtic migrations.

In the background my analysis is informed by state-of-the-art long-range linguistics, specifically Starostin's (1998-2008, 1999, 2000; cf. Fleming 2002) *Borean hypothesis: the idea that very ancient language forms can be reliably reconstructed, and that such reconstructions reveal the existence of some parent form, designated *Borean and supposed to be spoken in Central Eurasia at the onset of the Upper Palaeolithic; extensive traces of *Borean have been detected in most linguistic macrophyla spoken today: Eurasiatic / Nostratic (including Indo-European, Altaic, Uralic, Dravidian etc); Afroasiatic; Sino-Caucasian and the related Dene cluster in North America; Austric, Amerind, as well as in the African macrophylum Khoisan. When the designation 'Borean' was chosen, Georgiy Starostin already objected (Anonymous, n.d. (a)) that (since it implicitly refers to the Northern, 'boreal', hemisphere) it was based on the prejudgment that Eurasiatic / Nostratic, Afroasiatic, Dene-Caucasian and Austric would be more closely related to one another than to the African macrophyla Nilo-Saharan and Niger-Congo, and possibly Khoisan.⁴ This

³ Cf. Anthony & Vinogradov 1995; Anthony 1995; di Cosmo 1999; Litauer & Grouwel 1996; Sparreboom 1985. Diagram and caption after Anonymous, n.d. (b), African extensions my own.

⁴ Already two decades ago, leading linguists (Kaiser & Shevoroshin 1988) included Nilo-Saharan and Niger-Congo as branches of 'Super-Nostratic', where Nostratic is synonymous with Eurasiatic. By

inspired me to argue elsewhere (van Binsbergen 2008, reporting on an extensive statistical analysis) how also Niger-Congo – including Bantu – may be seen within the same perspective as presented here for the spiked wheel trap: as the result of local African (to some extent including Palaeo-African) interaction⁵ with incoming transcontinental elements. As much as 27% of the⁶ reconstructed *Borean lexicon can be argued to have reflexes in proto-Bantu.⁷ Meanwhile it is interesting to observe that the great majority of African attestations of the spiked wheel trap are in the realm of Nilo-Saharan and not of Niger-Congo languages. Perhaps this suggests a rather early Neolithic Northern association, connected with the spread of agricultural and of bovine rather than equestrian pastoralism; whereas *Borean-associated, pre-Niger-Congo / Bantu, inroads into sub-Saharan Africa from West Asia via Egypt and the Maghrib are rather to be dated to the Late Bronze Age.

But let us first discuss the spiked wheel trap and its distribution.

2. Introducing the spiked wheel trap

The Swede Sven Hedin was one of the principal European explorers of the decades around 1900. Invited to contribute to the 1935 Festschrift for Hedin, the Africanist Lindblom decided to concentrate on spiked wheel traps, since these had been given some attention in Hedin's work – our insight in their Asian distribution

some sort of condescending affirmative action, understandable in the light of the humiliations Africa and Africans have suffered at the hands of the wider world in the most recent centuries, Africanists today are largely in agreement that African cultural and linguistic features should only be analysed and explained by reference to things African, and not to transcontinental connections. (This is as if the history of the Christianity, as a dominant North Atlantic religion, would for ideological reason be prohibited from tracing that world religion's roots through to the Ancient Near East and Egypt; or as if the history of modern global music and dance would be written exclusively by reference to North Atlantic achievements, while obscuring all African roots of these cultural expressions.) The *Borean nature of Khoisan was accepted, on formal linguistic grounds (e.g. its affinities with Northern Caucasian are obvious), but also in the light of Cavalli-Sforza's hypothesis of modern Khoisan speakers being the descendants of a hybrid Asian/African population whose Asian ancestors still lived in the Asian continent 10 ka BP. Cf. Cavalli-Sforza *et al.* 1994: 176, *pace* Vigilant *et al.* 1989. However, I reject Cavalli-Sforza's view (shared by many others) of African languages as constituting isolated and archaic branches of the world genealogy of languages.

⁵ Cf. the comments by Oliver en Simiyu Wandibba in Oliver *et al.* 2001, in response to Ehret 1998, *cf.* 2001. Considering the affinities between Austric and Bantu, and the insistence, by linguistic specialists, on the contribution of non-Bantu elements in the African continent, the linguistic process of Bantu genesis was probably much more complex than I propose here to have been the case (with my appeal to an 'unoccupied niche of cultural ecology') for the spiked wheel trap and similarly distributed cultural items such as mankala, geomantic divination and the belief in a unilateral being.

⁶ Strictly speaking, the compilation of a proto-Bantu corpus has been too controversial to pretend there is one proto-Bantu lexicon, *cf.* Dalby 1975, 1976; Meeussen 1980; Vansina 1979-1980; Flight 1980, 1988; Maho 2003. In the end however Guthrie's (1967-1971) reconstruction offers a useful if far from ideal compromise. Since *Borean is here claimed to account for only a limited part of the proto-Bantu lexicon, and the Pelasgian influx is claimed to amount to primarily a cultural influence with only slight demographic impact, we need not enter here into a discussion of the obvious heterogeneity and possible polygenesis of Bantu and the rejection of the Bantu migration model (Bennett 1983; Vansina 1979-1980, 1995).

⁷ I do not have the corresponding data for Nilo-Saharan but I am somewhat confident (*cf.* Argyle 1994, 1999) that a statistical analysis would return a similar pattern of *Borean affinities as for Niger-Congo / Bantu.

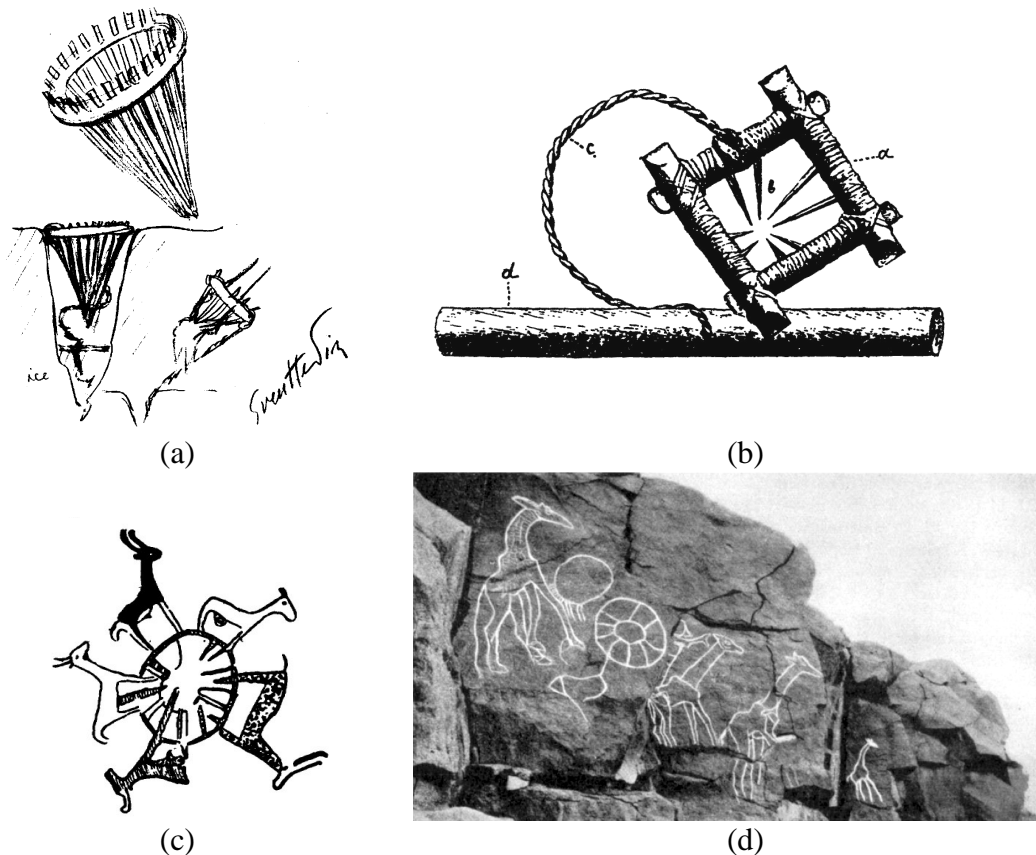
mainly derived from Hedin. For this occasion Lindblom revamped an earlier treatment of the same topic, published in 1928.

The spiked wheel trap consists of a circular construction, whose internal periphery is set with spikes that prevent the quarry to escape once caught in the trap. The following pictures (selected from Lindblom's 1935 article) make the form and function of this trap abundantly clear.

The iconographic evidence Lindblom adduces (on the basis of a depiction out of context in Capart 1905) as attestation for the spiked wheel trap in Ancient Egypt is open to criticism. The detail from Hierakonpolis is part of a much larger fresco (Fig. 5a-b, below), to be found in Painted Tomb 100 (Naqada IIC, c. 3500 BCE). The alleged spiked wheel trap is in the bottom left of the fresco. Note, to the left below this detail, the 'Master of Animals subduing two quadrupeds' – a theme which is often invoked as an indication of Sumerian influence in predynastic Egypt.⁸ The iconography does not compellingly suggest a spiked wheel trap; the circular arrangement of the animals is also found in Egyptian gaming discs of the same period, without an obvious connection with the trap.

2.1. Lindblom's original illustrations

Fig. 3. Lindblom's original illustrations (a) antelope trap, Karakorum (India / Tibet), drawn by Hedin; (b) trap from Amur region, South-eastern Siberia (c) Tomb painting, Hierakonpolis, predynastic Egypt (after Capart) (d) ancient rock carvings, Fezzan, Libya (after Frobenius)



⁸ Under my Pelasgian hypothesis, this would amount to Pelasgian continuity between Mesopotamia and Egypt in the late 4th mill. BCE.

Lindblom considers the Fezzan rock art showing a spoked wheel as an attestation of the spiked wheel trap. This is a distinct possibility, especially since the trap occurs there in historical times (Matkhandoush Natural Museum 2006-2009, *cf.* Fig. 4); the rock art has been interpreted in these terms by the Italian specialist Fabrizio Mori (1965; 1998: 179), whose comments on the depiction in Fig. 3d may be summarised as follows:

‘An engraving showing how trapping stones were used to catch large animals like giraffe. According to Professor Mori, who illustrated modern Tuareg examples of the trap, the animal places its foot on the big circle, the hoop, onto which were threaded a number of palm leaves with their pointed heads pointing towards the centre, and as a result the animal’s foot gets caught. The stone thus ends up attached to the animal’s leg, and eventually wears the animal out and slows it down, to be caught by the chasing hunters. Attaching the robe to a very large stone will probably stop the animal altogether. The whole trap is buried and therefore is invisible to the victim.’ (Matkhandoush Natural Museum 2006-2009)

Fig. 4, showing the same rock engraving in more detail, shows a unique, deep line (*cf.* arrow) from the alleged wheel trap/solar symbol to an irregular, flattish outline which may well represent a stone. There is however a strange problem with this rock engraving: when the photographic imaged is digitally enhanced, the trap/solar depiction appears to be on a jutting piece of rock (its upper part seems to even break off from the main rock) obscuring the right-hand part of the engraved scene, and in colouring and shade so different from the rest that (if the authority of Frobenius and the Matkhandoush Natural Museum and did not attach to the image) one would almost be inclined to see it as a product of creative use of a digital graphic application such a TMPhotoshop.

Fig. 4. Detail of the rock engraving shown in Fig. 3d (adapted after Matkhandoush Natural Museum 2006-2009), showing the connecting line(see arrow) issuing from the trap/solar element; and showing (see broken outline) the latter to be strangely detached and jutting out from the rest of the engraving



However, even though the interpretation in terms of a spiked wheel trap may be acceptable in this particular case, rock art from regions as diverse as Australia (see below) and Scandinavia shows similar devices, which scholarship has so far preferably interpreted as solar.

Fig. 5. An alleged spiked wheel trap depicted on the fresco of Hierakonpolis Tomb 100 (a), with detail (b); Naqada IIC (c. 3500 BCE)⁹



(a)



(b)

2.2. Lindblom's distributional analysis

By contrast with the patchy distribution in Asia, and the absence of the spiked wheel trap in the Americas, Lindblom found a rather dense distribution in Africa (Fig. 8, redrawn and completed as Fig. 9, below) and for the rest of the world at large (my Fig. 11), for which he offers extensive bibliographical evidence (Table 1). A few additional examples of spiked wheel traps from Africa appear in Figs. 6 and 7.

⁹ Cf. Quibell & Green 1902: 20f., pl. 67, 75-79; Vandier 1952: I, 561-571; Case & Payne 1962; Crowfoot-Payne 1973; Kemp 1973; Cialowicz 2001: 100f, 157-161.

Fig. 6. Modern spiked wheel trap from Nalut, modern Libya (Matkhandoush Natural Museum, Libya, 2006-2009)



Fig. 7. Modern spiked wheel trap from the Western Nilotic (Nilo-Saharan) speaking Acholi people, Southern Sudan (Sparks 2006)



Sparks (2006a, 2006b, 2006c, 2006d, 2006e) offers further evidence on spiked wheel traps from Nilotic speaking peoples in East Asia, but this information overlaps with that already included in Lindblom 1935.

Table 1. Detailed data on world distribution of the spiked wheel trap, compiled by the present author on the basis of Lindblom 1935

Empty bibliography cell: Lindblom's source can no longer be ascertained but is yet considered reliable

Number	Location (following the usage in Lindblom's time)	Bibliography and/or collection
01	Trans-Himalaya	Hedin 1909: II, p. 274 .
02	Etsingol district	No. H 3695, fig. 2 collected from the Etsingol district by Dr. Nils Horner.
03a	Moro tsonch, a ruined watch-tower situated ca. 10 km. SSE of Khara Khoto:	As above
03b	Mu durbeljin, the ruin of a small fort on the western banks of the Etsingol, ca. 15 km. W of Khara khoto:	As above
03c	Bukhen torei, a ruined watch-tower on the eastern bank of the Etsingol, ca. 52 km. SW of Khara khoto:	As above
04	oasis of Tun Huang (Su-Chou)	Stein 1921: II, p. 704, 782, IV, Pl. LIV; Joyce, n.d.; Stein, 1928: I, pp. 382, 421, Pl. XLVI.
05	Tibet, 300 km. N. E. of Tengri-Nor	Bower, 1894: 117
05a	Tibet, Champas (Eastern Tibet)	Rockhill 1895: 714
06	the State of Bikanir (the northernmost section of The Rajputana agency)	Cambridge University Museum of Archaeology
07	southwestern Caucasus, the district of Suchum	Pobiter (von Kadich), 1907: 196
08	Graeco-Roman (or general European?) Antiquity	Reid 1922: 282f; Berg 1933: 17f, figs. 2-5; Engelstad 1934: 81, Pl. V, XLIII-XLIV
08a	Modern Europe: forest district on the border between Hungary and lower Austria, westward of Lake Neusiedler (Sieggraben, Hochwolkersdorf, Kaiser-wald),	Pobiter (von Kadich), 1907: 84, fig. 1
09	Graeco-Roman Antiquity	Xenophon, Cynegetica, 9, 11(1828: III, p. 1515)
10	Graeco-Roman Antiquity	Pollux 1900: Lib. 5. 32
11	Graeco-Roman Antiquity	Gratius Faliscus, Cynegeticon, 92, 1826: 8 («Quid, qui dentatas iligno robore clausit venator pedicas?»)
12	General Africa	Lindblom 1928
13	Amur	Silantjew 1898: 195-196
African attestations marked A before their number:		
A01	Ancient Egypt (early dynastic?). ¹⁰ Tomb-painting at Hierakonpolis (fig. 7).	Quibell & Green 1902: II, Pl. LXXVI; via Capart 1905; the Pitt-River Museum in Oxford possesses a trap dating to either the 20th or the 22nd dynasty.
A02	Ababde	Murray 1923: 421; and Pitt-River Museum, Oxford.
A03	Arabs of Dongola (the late Turkish province).	
A04	Arabs of the Abu Hamed district (the tribes Rubatab and Mansir)	Jackson 1926: 12.
A05	Arabs of the Bayuda steppe (probably Shaique or Kababish, probably the latter)	Brehm 1862: III, 59, 1863: 148
A06	Kordofan, Anglo-Egyptian Sudan in general	Kotschy 1862; Von Heuglin 1862: 108
A07	Baggara, the tribe Beni Selim, Gebelein	Thomas 1924: 112, fig. 231
A08	Dar Fertit, southern Darfur	Thomas 1924: 112, fig. 232.
A09	Hamran	
A10	Beni Amer (district of Kassala).	
A11	The nomads of Samchara, the narrow strip of desertlike country between the Red Sea and the highland region of the interior.	
A12	eastern border of Gallabat	
A13	Galla, on the upper reaches of Dinder, a tributary of the White Nile.	
A14	Shilluk	Lips 1928
A15	Nuer	Jackson 1923: 138; photograph. Bernatzik 1929: fig. 6.
A16	Bari.	
A17	Madi	Lloyd 1911: 271
A18	Shuli (Acholi)	Kitching 19112: 1174

¹⁰ This is Lindblom's surmise. In fact, the Hierakonpolis tomb 100 is considered by specialists to belong to Naqada IIC, c. 3500 BCE, three or four centuries before the onset of dynastic times.

A19	Lango.	Pitt River Museum
A20	Elgumi.	
A21	Turkana.	Oxford Museum; Cf. Emley 1927: 191. fig. 8.
A22	Suk.	
A23	Ndorobo.	
A24	Nandi.	
A25	Bantu in Kitosh, N. Kavirondo.	
A26	Baganda	
A27	Banyoro	
A28	Kiziba	
A29	Kafue River, Northern Rhodesia	Film 'Africa untamed, W.D. Hubbard and W. Earle Frank, Warner First National
A29	'throughout Eastern Africa, from Nubia down to the vicinity of Nyasaland	Johnston 1902: 874
A30	Libyan desert	Harding King 1925: 267 with fig.
A31	Imangassaten Tuareg and 'les serfs Fezzanais' of Ubari	Breuil 1923: 160, fig. 2; Frobenius 1933: 117 sq., 142, fig. 34, Pl 22; Harding King 1925: p. 267 with fig
A32	Region of Touzeur.	
A33	Region of Khenchela.	
A34	The Muidir plateau, S E of In Salah.	The Museum of Copenhagen (Nr Gl:io. Olufsen's Sahara expedition 1922-23.)
A35	Azdjer Tuaregs	Berlin Museum (No. III. B. 1972)
A36	The Hoggar Tuaregs, Tamanrasset	
A36	Amdjid / Amgid / Amguid, a well N E of the Muidir plateau	Chudeau 1909: 202 Voinot 1908, supplém., p. 86
A37	Tuaregs of Air.	Oxford Museum, collected by Rodd and Buchanan.
A38	Central Domergu, Kalilua	Oxford Museum, collected by Rodd.
A39	Lake Tsad region	Chudeau 1909 : 202. Paris 1909
A40	Northern Territories of the Gold Coast	The Oxford Museum (Mamprussi, Konkomba, Gambaga district) at the White Volta; British Museum (North-Western and Southern provinces).
A41	Tern, northern Togo.	Cologne Museum
A41		Lips 1927: fig. 90
A42	Bariba, Borgu	Berlin Museum.
A43	Bolewa, Ngano and Kare-Kare of N. Nigeria	Meek 1931: II, p. 296.
A44	Bachama	
A45	Lakka	Frobenius, 1925: 94.
A46	Maka.	
A47	S. Rhodesia	Cipriani 1932: 28.

It is typical for the state of the study of material culture in the 1930s, that Lindblom is hardly interested in proposing an unequivocal explanation for the distribution patterns he so painstakingly established. *Such explanation will be the purpose of my present re-analysis.*

'The present *distribution* of the trap in Africa is therefore in all probability to ascribe to Hamitic influence, and it is also possible that it is of Hamitic *origin* — it existed, as we know, already in ancient Egypt (...). As regards Asia, our knowledge of it in that continent is as yet all too imperfect, and the data too sporadic, to allow of any definite conclusions to be drawn. There it would seem to constitute a survival, confined to regions that ethnographically, as well as in other respects, present archaic and isolated forms (Tibet, Caucasia). That also in Asia it is of great antiquity is evident from the archaeological finds that have been made. What has here briefly been said of Asia is also generally applicable to Europe. That this trap is a very ancient culture element may be regarded as quite certain, it may perhaps even date back to the Palaeolithic Age. In fact, this theory has been advanced by Lips who as nothing but wheel-traps looks upon certain [sic; this sentence is muddled in the original – WvB] of the well-known figures from the later Palaeolithic era existing in the Pyrenean peninsula and the south of France, which hitherto by most scientists have been interpreted as huts. (...) It is yet too early, however, to pronounce any definite opinion on that point. But if it could be proved — and many things speak in favour of it — that the wheel-trap is represented in the rock-carvings

of North Africa and the Sahara, the oldest ones of which would at least be of late Palaeolithic age, this would undoubtedly strengthen the probability of Lips' theory.

The spiked wheel-trap presents a form so highly specialized that there is every reason for supposing a unity of origin. Whether this is to seek in Central Asia, or northern Africa, or among the ancient Mediterranean cultures that were connected with Asia, of which northern Africa formed a part, is a point not easy of determination. The possibility of the trap having occurred in Southern Europe and northern Africa already in the Palaeolithic age is apt to make this question still more complicated.¹¹ (Lindblom 1935: 630f)

Lindblom's use of the term 'Hamitic' requires further comment. In the first half of the 20th c. CE, many Africanists supported the Hamitic thesis, which – given the racist stereotype of Africans' inability at cultural initiative – sought to explain the achievements of African cultures, which even to a prejudiced eye were undeniable, by reference to the proto-historic influx of so-called Hamites, i.e. West Asians and North Africans, with lower levels of skin pigmentation than common in sub-Saharan Africa, typically speaking an Afroasiatic language (then usually designated 'Hamitic', after Ham, the son of biblical Noah who in Genesis 10 is particularly associated with locations in Northern Africa, and bringing such cultural achievements as metallurgy and pastoralism (*cf.* Johnston *et al.* 1913; Seligman 1913). Modern African studies have completely discarded the Hamitic thesis (Sanders 1969; Zachernuk 1994) because of its racist overtones. The problem however is that the scholars launching that thesis in the first place, ranked among the principal Africanists of their generation, had (contrary to the belief of modern Africanists, who tend to believe that serious African Studies started with the generation of Evans-Pritchard and Fortes) a profound personal knowledge of Africa, and while children of their racist age and continent, were not particularly out to slight Black Africans. I must admit that the present argument at first glance appears to come close to reviving of the Hamitic thesis, albeit with an essential difference which I will point out in the conclusion (also *cf.* van Binsbergen *in press*). Recent scholarship has occasionally (*cf.* Bernal 1987 on Meyer and Montelius) advocated the vindication of views held around 1900 CE, and in the meantime discarded for later paradigms.

¹¹ Lindblom here expresses the view held by many archaeologists: various common motifs from Franco-Cantabrian Upper Palaeolithic rock art might be representations of animal traps. Many of the 'tectiform' motifs shown here have been so interpreted in the archaeological literature. He even goes to the extent of claiming that some of these images might be interpreted as spiked wheel traps, but such a specific suggestion is not borne out by my Fig. 6 (from Leroi-Gourhan 1968, the great mid-20th specialist interpreter of such images, as reproduced in Carr 1995); no does Lindblom offer additional examples to back his claim.

Fig. 8. Lindblom's original distribution map for Africa

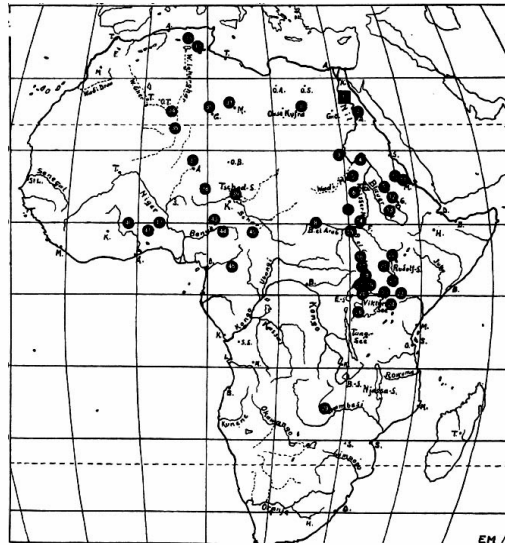


Fig. 9. African distribution of spiked wheel trap redrawn¹²



¹² Lindblom's original reference to Cipriani 1932 refers, not to the Kafue region in the then Northern Rhodesia (now Zambia), but to the 'ruins and mines' of Southern Rhodesia (now Zimbabwe), and as such turns out to be omitted from Lindblom's African distribution map. I have added this data point in the present map.

Fig. 10. 'Tectiform' motifs from the Franco-Cantabrian Upper Palaeolithic (after Leroi-Gourhan 1968 via Carr 1995)

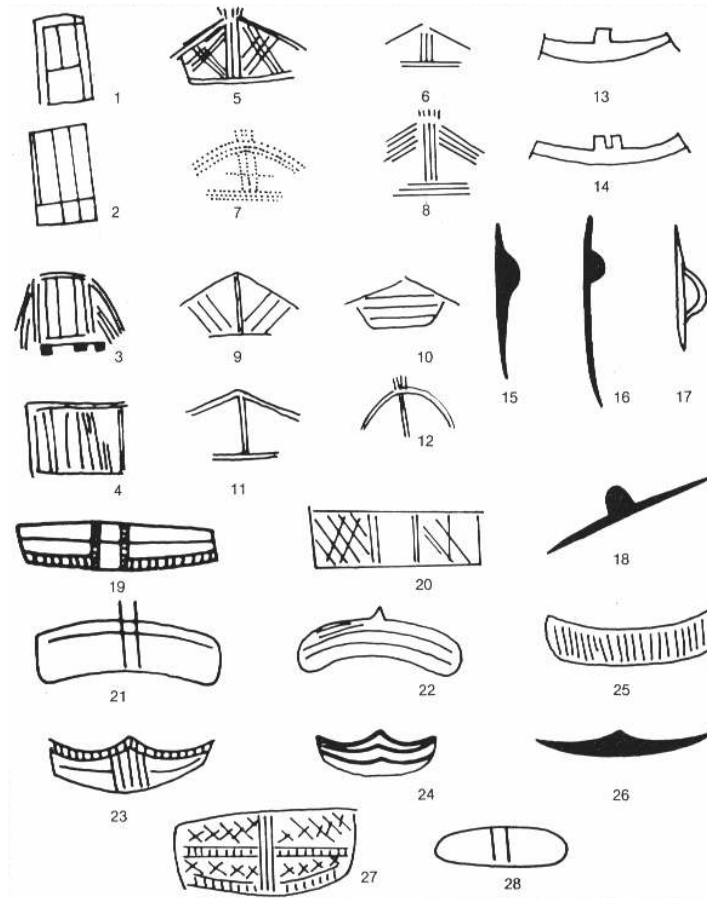


Fig. 11. World distribution (data largely Lindblom, mapping and additional data by the present author).



3. Discussion

Remarkable about the African distribution of the spiked wheel trap are the following features:

- a. The two southernmost, isolated data points are in Zimbabwe, and in Zambia on the Kafue River (a tributary of the Zambezi River): Ila (the Ila-Tonga speakers are supposed to descend from pastoralists moving south from the Intralacustrine region in East Africa about 1 ka BP).
- b. The rest of the African distribution is virtually confined to the Northern hemisphere
- c. Note the concentrations along the Nile River (including White Nile and Blue Nile), Lake Victoria, Niger, Eastern Maghrib, and in a straight (caravan-trail?) line South South East across the Sahara

The world distribution of the spiked wheel trap (provided we can really consider this a true type, and not an accidental and artificially constructed sub-group of a wider category of hunting devices) poses a number of remarkable features.

1. Predominantly African
Below we will consider the very similar, also predominantly African distributions of *mankala*, geomantic divination, and the belief in the unilateral mythical figure
2. However, in Africa almost exclusively the Northern hemisphere
 - a. This is puzzling, and suggests that the spiked wheel trap, though predominantly African, is not primarily associated with the Bantu branch of Niger-Congo languages, nor primarily with Khoisan languages (the remaining African language phyla are Nilo-Saharan and Afroasiatic); before the Arab and European incursions into Africa, Africa south of the Equator was predominantly Bantu or Khoisan speaking
3. A handful of attestations in Central to West Asia, but nowhere else in Asia
 - a. This suggests that the spiked wheel-trap is associated only with one particular, relatively recent, phase in the cultural and linguistic history of Eurasia, and with fairly limited linguistico-cultural clusters emerging in that connection: Eurasiatic > Altaic, possibly also Sino-Caucasian > North Caucasian, but what appears to be a Caucasian attestation could also be Altaic or Uralic.
4. No attestations in the Americas¹³
 - a. In many global distributional analyses (notably in the field of comparative ethnography and comparative mythology), there is a tendency towards cultural (e.g. mythological) parallelism between the Americas and sub-Saharan Africa;¹⁴ the absence of

¹³ Perhaps the spiked wheel trap did occur in the New World, after all, *cf.* Fig. 8. However, a bibliographical search could not confirm any other attestations than those already listed by Lindblom 1935. Tufton's (1899, 1901) fairly exhaustive discussions do not mention this type of trap. Perhaps specialists in the comparative study of the material culture of hunting could bring clarity on this point.

¹⁴ *Cf.* Berezkin 2007, 2008a, 2008b; van Binsbergen 2006a, 2006b. Also *cf.* the close relationships

American attestations suggests that the spiked wheel trap was an isolated invention made after the majority of American parent populations had already left West, Central and North East Asia for the Americas. This indicates that as a cultural invention the spiked wheel trap is not connected with the linguistic (macro)phyla of Amerind and Na-Dene, nor with Sino-Caucasian which is closely affiliated with Na-Dene. In that case the attestation of the spiked wheel trap in Tibet may not be linked with Sino-Tibetan but with Eurasiatic > Altaic or Uralic

5. No attestations in Oceania
 - a. Again, this indicates that the spiked wheel trap is relatively confined in space and relatively recent in time; it is not connected with the linguistic macrophylum of Austric – but perhaps limited opportunities for larger game hunting in Oceania led to the spiked wheel trap being dropped as a cultural item when, in recent millennia, Oceania came to be populated, from East or South East Asia.
6. No attestations in Australia / New Guinea, even though here hunting and collecting has continued to dominate to a larger extent than in most other continents
 - a. Despite the extensive African distribution this confirms that the spiked wheel trap does not belong to Pandora’s Box, in other words does not predate the Out of Africa Exodus 80-60 ka BP; this also makes a spread of this artefact *into* Africa (along with the Back into Africa migration from c. 15 ka BP) more likely than the other way around, a spread out of Africa¹⁵
7. A few attestations in Europe: several literary ones in Graeco-Roman Antiquity,¹⁶ and one Central Danube valley

between the African macrophyla and the Amerind macrophylum, as branches of *Borean – see below.

¹⁵ Meanwhile there is an important methodological point to be considered here. Lindblom easily assumed spoked circular patterns to be evidence of the spiked wheel trap, but there are other possibilities, as the common Australian rock art motif of Fig. 9 suggests: an un-datable specimen of Australian rock art, of the fairly common type, estimated to be at least 6 ka old (Stubbs 1978: 21). In the context of Australian studies, such patterns are commonly considered solar. Rival interpretations would consider this a spider’s net (but there is a widespread mythological / cosmological identification of the spider and the sun). Formally, there is a remote possibility that we are dealing here with a representation of a spiked wheel trap; however, Lindblom’s global distribution of attested spiked wheel trap and their representation seems to defy such an interpretation, in this Australian case

In general, the circle and spiral as a cosmological motif associated with time, seasons, emergence, energy etc. is so widespread and ancient (*cf.* Mal’ta Central Asia Upper Palaeolithic – the presumable region and period of the speakers of *Borean), that an interpretation of such common motifs in terms of a particular type of animal trap seems too simple and too materialistic (*cf.* Fig. 10).

¹⁶ Lindblom mentions Xenophon, Pollux and Gratius Faliscus. On Graeco-Roman nomenclature of this type of trap, he adds (Lindblom 1935: 6):

‘for the spiked wheel-trap the Romans used the appellation *pedica dentata* (*pedica* being the generic word for foot-snares), or *podagra*, the Greek term. Another Greek name for it is *podostrapha*. Both these words were, however, no doubt used for denoting foot-snares in a general way. Although no positive assertion is likely to be forthcoming on this point, it appears to me not unlikely that the Romans learnt from the Greeks the use of this trap’.

My explanation is different: both the Greek and the Roman attestations are to be attributed to the Mediterranean-Pelagian cultural substrate (van Binsbergen 2009, see below).

Fig. 12. Rock art from Northern California¹⁷

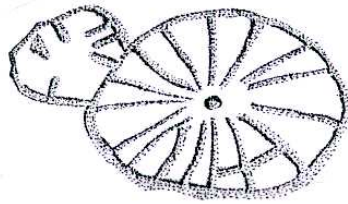


Fig. 13. Solar or web-like pattern in prehistoric Australian rock art (after (Stubbs 1978))



Fig. 14. Dotted spirals and, on the reverse, snake-like lines on a centrally perforated tablet from the Mal'ta site, Lake Baikal, ca. 21 ka BP (Irkutsk museum, Siberia, Russian Federation).¹⁸



¹⁷ Source: Institute for Research on World Systems, n.d., with the caption: 'Figure 2: Rock Art from Northern California – From: Christopher Chase-Dunn and Bruce Lerro, *Social Change: World Historical Social Transformations*, forthcoming from Allyn and Bacon' (= Chase-Dunn & Lerro 2005). The central dot is also found, for instance, in the Australian example of Fig. 9; in the 'solar' motif on Carschenna rock 3 (Rethic Alps, Graubunden, Switzerland), Arca 1996; and at Capisca, Lluta, Northern Chile (van Hoek, n.d.). A relatively old, Mesolithic, spider depiction appears in the Cingle de la Mola Remigia, Gasulla cañon, Castellon, Spain (Bandi & Maringer 1952: 139). The motif is so elementary and so close to nature (spider's web) that any suggestion of a historical connection between these and numerous other instances worldwide, despite the suggestion (van Binsbergen 2006a, 2006b) that the mytheme of the cosmogonic solar spider was probably in Pandora's Box.

¹⁸ Cf. Soffer *et al.* 2001 and references cited there.

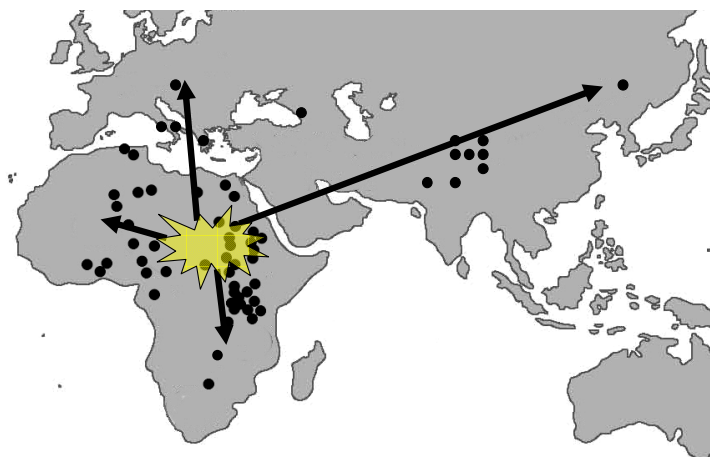
4. Towards alternative models of historical reconstruction explaining the geographic distribution of the spiked wheel trap

Considering these many salient points in the puzzling distribution of the spiked wheel trap, a limited number of alternative explanations present themselves:

4.1. From Pandora's Box (the pre-Out of Africa cultural heritage of Anatomically Modern Humans)

1. A sub-Saharan African origin, which also would suggest a dating no later than the second sally out of Africa (c. 60 ka BP), for that would be the most conspicuous context for sub-Saharan African traits to make an impact on Europe and Asia (Fig. 15). What strongly argues against this explanation is that traits from Pandora's Box, as the original cultural heritage of Anatomically Modern Humans, should be far more widespread – in fact, such traits are primarily identified by their near-universal distribution amongst cultures in historical times. Strictly speaking, the Out-of-Africa Exodus, in two sallies (c. 80 ka BP and c. 60 ka BP) were not the only opportunities for African cultural material to massively spread to Europe and Africa: while the Anatomically Modern Human population of Europe largely derived from Africa from c. 40 ka BP, bringing cultural forms that had been very considerably diversified, transformed and innovated *inside Asia* after the Exodus from Africa (*cf.* van Binsbergen 2006a, 2006b), we may also assume that a trickle of Palaeo-African (i.e. pre-Out-of-Africa traits locally evolved inside Africa after the Exodus) was directly transmitted North, from sub-Saharan Africa into Europe and West Asia, bringing such archaic traits as the mytheme of the earth as the primary origin of humankind, hence the cult of the land; the veneration/taboo of the spider, etc.; however, also such Palaeo-African traits directly transmitted North would result in much wider distributions in Eurasia, Oceania and the Americas, than now found with the spiked wheel trap.

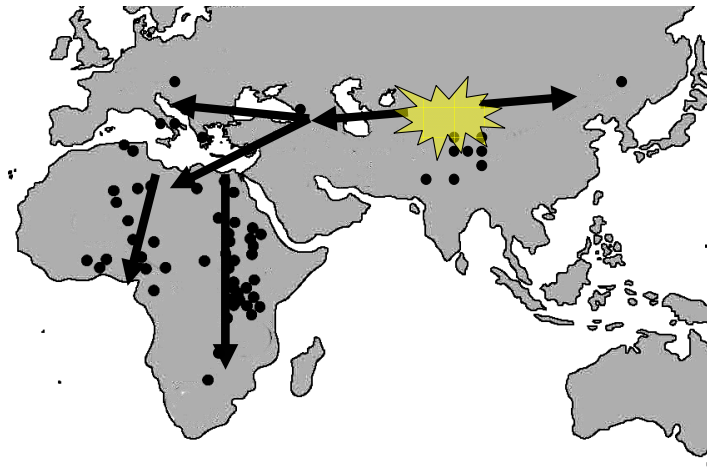
Fig. 15. Proposed historical reconstruction (a) African origin.



4.2. Eurasian origins

2. **Borean*: An origin in Central Asia, with subsequent expansion on the wings of the disintegration of **Borean*, which means a proposed dating c. 25 ka BP (Fig. 12).¹⁹ Convergence between Altaic (Mongolian), Uralic, and even African (e.g. modern Bantu-speaking) and Northern American cultures can be seen in several fields of life, e.g. basketry, hunting techniques (although the present type of trap apparently did not make it to America), puberty rites, games and gaming/divination implements. This suggests that the spiked wheel trap, as an invention, could belong to the period when, in Central Asia, **Borean* was disintegrating into its constituent branch phyla, and when within Eurasiatic proto-African, Altaic and Uralic had not yet dissociated, although proto-Amerind and proto-Dene-Sino-Caucasian had. However, if we thus situate the invention of the spiked wheel trap to the earlier phases of the disintegration of Eurasiatic, i.e. to the Late Upper Palaeolithic (c. 15-10 ka BP), we run again into the difficulty that such a remote past, and such an association with a linguistic macro-phylum, would almost inevitably produce a very wide and smooth distribution pattern, extending (like Eurasiatic itself) over most of Northern and much of Southern Eurasia (in addition to Africa, with the phyla Nilo-Saharan and Niger-Congo – the latter probably in a daughter relation vis-à-vis the former). What we find instead is a very local and narrow, patchy distribution in Eurasia, coupled with a more generous distribution across the Northern half of Africa only.

Fig. 16. Proposed historical reconstruction: (b) **Borean*



¹⁹ In an earlier draft of this argument I had included a discussion of the possible origin of the spiked wheel trap in the region where North Caucasian languages are spoken, as a branch of the Sino-Caucasian macrophylum. I have suppressed this discussion, partly because of the now despised, biblical and Hamitic-thesis connotations of the idea of a Caucasian origin; and partly because the Caucasus is not a likely epicentre of long-range linguistic and cultural dispersal. If we accept Staroshin's **Borean* hypothesis, then the disintegration of **Borean* into Sino-Caucasian, Eurasiatic (Uralic, Altaic, Indo-European, Dravidian, Kartvelian, etc.), Afroasiatic, Austric, and American and African languages, did not in the first place take place in the Caucasus, but most probably far more to the East, in Central Asia – near the proposed 'primary Pelasgian realm' of the Pelasgian hypothesis, but c. 15 ka earlier.

A note on the Pelasgian hypothesis. Ever since the late 1960s, and especially during the last fifteen years, I have been occupied with the collection and analysis of a large volume of distributional ethnographic, linguistic, archaeological and mythological data, relating to such topics as the socio-religious structure in the eastern outskirts of the Atlas mountains, Tunisia, southern shore of the Mediterranean; the nature and origin of royal court culture and mythology among the Nkoya people of Zambia, South Central Africa; the comparative history of cults of affliction and of divination systems in Africa, Asia and Europe; the ethnicity of the Sea Peoples of the Late Bronze Age Mediterranean; the Black Athena debate as initiated by Martin Bernal (1987-2006); a world-wide comparative study of leopard-skin symbolism; African cosmogonic myths in global diachronic perspective; the comparative mythology of flood myths worldwide; Stephen Oppenheimer's (1998) Sunda hypothesis, which claims a decisive constitutive cultural influence emanating from Indonesia upon Western Asia including the Ancient Near East and the Bible world from the early Holocene onward; the nature and origin of the Greek god of fire and metallurgy Hephaestus; a cyclical transformation system of elements, found in all three continents of the Old World, and probably at the root of the primal matter identified by the pre-Socratic Greek philosophers as water (Thales), air (Anaximenes), fire (Heraclitus), and all three plus earth added (Empedocles); Japanese creation myths. Admittedly, this list looks like an inventory of work of a scholar who, unwisely, acknowledges no boundaries between specialised fields of scholarship and who sees no limits to his own competence; yet all these topics hang closely together since they were all initiated and executed as logical further steps in a sustained process, in which I sought to offer the empirical data and the interpretative models relating to the underlying unity of Old World cultures and languages, of which my ethnographic, historical, comparative and intercultural-philosophical work made me increasingly aware at an intuitive, pre-scientific level.

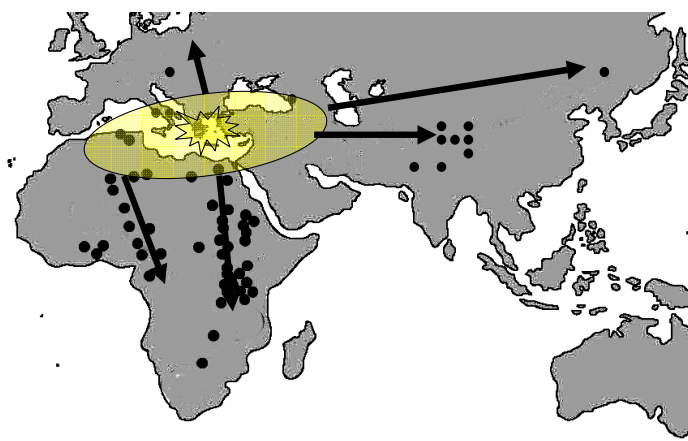
As one of the tools promising to create order and sense of the unmistakable comparative trends emerging from this corpus, I have recently formulated (van Binsbergen, in press) the Pelasgian hypothesis, as an integrative perspective on long-range ethnic, cultural, linguistic and genetic affinities encompassing Africa, Europe, and Asia. This hypothesis proposes an original, primary Pelasgian realm in Neolithic Central Asia, which due to westbound population movements in the Early and Middle Bronze Ages (greatly facilitated by Central Asian pastoralists' achievements the rise of horse-riding and of chariot technology) led to the establishment of a secondary Mediterranean-Pelasgian realm by the Late Bronze Age. Although linguistically and ethnically heterogeneous (so that the term 'Pelasgian' can only be employed as an analytical label, without one-to-one correspondence to the ethnic distinctions the historical actors themselves were making), the primary and secondary Pelasgian realms stood out by a package of traits; individual 'Pelasgian' population groups never displayed the entire package, but displayed a tendency to adopt a fair number of them selectively, and on that basis yet had a basis for ethno-political identification with other such groups. As many as 80 Pelasgian traits have been identified.²⁰ The

²⁰ A full list is presented in van Binsbergen & Woudhuizen, in press: chapter 28. Here also the distributional structure of the 'cross-model' is demonstrated: emerging in West Central Asia as the Primary Pelasgian Realm, and spreading, throughout the Bronze Age, westward in the West Asia and the Mediterranean, from the Middle Bronze Age on, and largely on the wings of horse-riding and chariot technology, Pelasgian traits are selectively transmitted in all four directions: west to the Western Mediterranean and the Celtic World; north to the Uralic and Germanic world; East across the

distribution maps suggest that also the spiked wheel trap may be interpreted as a Pelasgian trait, as under the following points (3) and (4)

3. *Secondary, Mediterranean-Pelasgian:* An origin in the proposed Mediterranean-Pelasgian realm, which suggests a Bronze Age dating, with subsequent spread to Central and East Asia, and into Africa, on the wings of horse-riding and chariot technology (Fig. 13). What argues against this interpretation is that the Mediterranean attestations are so few, and while there are (in horse-riding and chariot technologies) recognised mechanisms to explain cultural transmission from the Mediterranean to the entire Eurasian Steppe belt all the way to the Pacific, there is no such mechanism to explain such transmission exclusively to Central Asia (where the spiked wheel trap is relatively frequent), skipping both West Asia and East Asia (where the trap is virtually absent).

Fig. 17. Proposed historical reconstruction: (c) Mediterranean-Pelasgian origin, then into Asia and Africa)



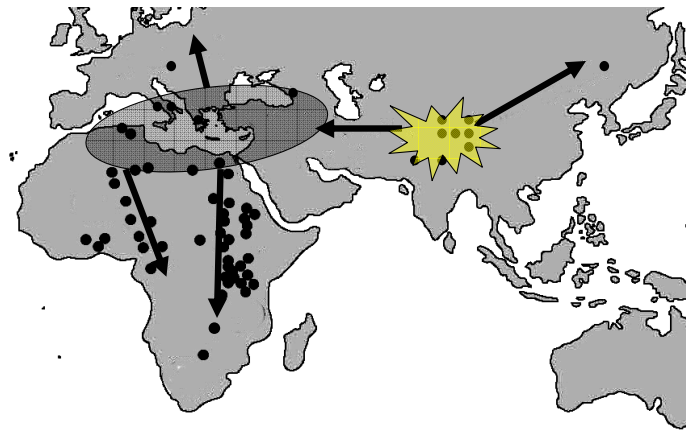
4. *Primary, Central Asian Pelasgian:* However, if the Mediterranean Pelasgian realm is seen as only a secondary branch of a more original Pelasgian realm situated in Central Asia by the Late Neolithic, then it is more likely that the

Eurasian Steppe to East Asia, with diversions to South and South East Asia; and south across the Sahara into sub-Saharan Africa – notably the area where Niger-Congo (> Bantu) is spoken in historical times. A selection of proposed Pelasgian traits includes (order is arbitrary): gold mining and metallurgy, gold-smithing; relatively early adoption and transmission (if not invention) of iron-working technology; veneration of a Mother goddess associated with bees; male genital mutilation in at least part of the realm; territorial cults centring on earth shrines, often in the form of *herms*, with divination function; a central flood myth and a creation mythology centring on the primal emergence of Land from Water, with the Primal Waters personified as a virgin Creator Goddess; military prowess and pre-marital sexual license of (young) women; veneration of a divine pair of opposite gender (e.g. Athena and Poseidon, Athena and Hephaestus, Nü Wa 女媧 and Fu Xi 伏羲 associated with the installation of culture and world order – there are indications that the Graeco-Roman claim of *Lacus Tritonis* / *Šqt al-Jerīd* (modern Southern Tunisia) as birth place of Athena mirrors an earlier, more eastern, Central Asian birthplace by a major inland lake, and such mirroring occurs in other ancient place names including Iberia, Libya, and Africa / Ifriqā; relatively early adoption and transmission of chariot technology; veneration of a solar god; headhunting and skull cult; common genetic background; boat cult, perhaps associated with the afterlife.

Central Asian attestations are the oldest ones, and the East Asian, Mediterranean, other European and African ones derived from there with the spread of horse and chariot technologies (Fig. 14).

If the spiked wheel trap was invented in Central Asia, we have the limited, and rather recent, context in space in time which would be commensurate with the distribution of that implement. It would then also have diffused into the Mediterranean region, and further into Africa, with the diffusion of the chariot, as marked by Sahara rock art (Lhote 1959; Mauny 1947, 1955). Therefore what emerges as the most likely explanatory model for the distribution of the spiked wheel trap is the Pelasgian model.

Fig. 18. Proposed historical reconstruction (favoured): (d) Primary Pelasgian origin in Central Asia, then to secondary, Mediterranean Pelasgian realm, then on into Africa



5. Formal cultural systems whose distribution is similar to that of the spiked wheel trap: Mankala, geomantic divination, and belief in a unilateral mythical being

Although we have not arrived at a convincing alternative explanation, above I mentioned the possibility of interpreting the preponderance of the spiked wheel trap in Africa as a sign of origin in that continent. The same argument has been made (Culin 1896; Kassibo 1992; Traoré 1979; van Binsbergen 1997)²¹ for a few other formal

²¹ The conspicuous and consistent African presence for each of these four distributions, has given earlier interpreters (including myself) the impression of an essentially African phenomenon that happens to have spilled over transcontinentally into Eurasia. Thus geomantic divination (known under such famous African forms as Ifa, Sikidy, Hakata), mankala, and the Luwe unilateral mythical character have been presented as essentially African cultural elements occasionally wandering into Eurasia, e.g. in the wake of major population movements from Africa to Asia, trade, voluntary labour migration, and forced migration in the context of slavery. No unequivocal evidence of such African-Eurasian movement at a substantial scale in Holocene times is however available. In Afrocentric circles

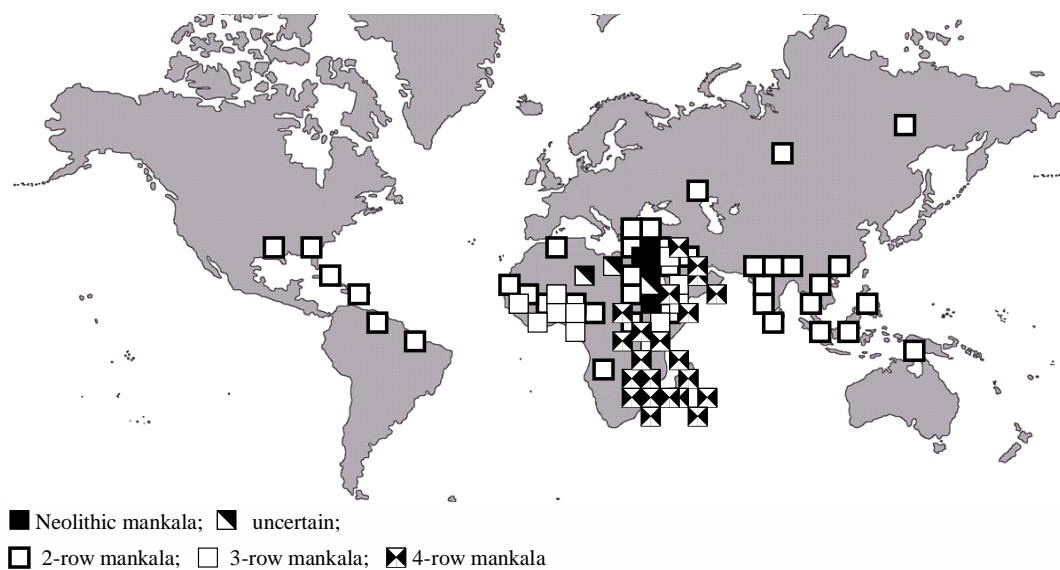
cultural systems which have an Old-World distribution well comparable with that of the spiked wheel trap:

- the *mankala* mathematical board game (revolving on the rule-regulated redistribution of a given number of tokens among a given number of ordered positions, arranged in two to four rows), and
- geomantic divination, where a random generation (the casting of wooden or ivory tablets, shells, etc.) produces a finite (usually 2^n) specific and named configurations, which are subsequently interpreted by reference to a fixed, memorised interpretational catalogue.

Moreover, in the mythological domain, also the mythical figure that has only one side to his or her body (described by von Sicard 1968-9 under the generic term of ‘Luwe’) has a similar Old-World distribution. The world distributions of these traits are given in Figures 15-17.

Fig. 19. Mankala: Distribution of the various types

Note: the New World distribution is entirely due to forced trans-Atlantic migration in the second half of the 2nd mill. CE (after van Binsbergen 1997)



the case of highly pigmented populations in the Caucasus / Pontic area (Abkhazians etc.), and that of the often highly pigmented Dravidian-speaking populations of Southern India and Sri Lanka as well as the so-called ‘Untouchables’ (Dallit) often of similar levels of pigmentation, is often cited as proof of substantial African settlement in Upper Palaeolithic times of more recently . However, so far these claims have not found support in modern molecular genetics, which allows (albeit at the price of huge error distributions, in other words with great uncertainty, as far as dating is concerned) for detailed reconstructions of populations movements. But as we have seen above, tate of the art genetics sees, instead, a Back-into-Africa movement from the Upper Palaeolithic onward (Hammer *et al.* 1998; Coia *et al.* 2002; Cruciani *et al.* 2005; Underhill 2004). Therefore, contrary to my earlier Afrocentrist interpretation of mankala and geomantic divination (van Binsbergen 1997), I now believe that the proper interpretation is just opposite: these are essentially West Central Asian traits, taken in all directions by the dynamics of the cross model, but incomparably more successful in sub-Saharan Africa than in other parts of the Old World.

Fig. 20. World distribution of geomantic divination

Note: the New World distribution is entirely due to forced trans-Atlantic migration in the second half of the 2nd mill. CE (after van Binsbergen 1997)

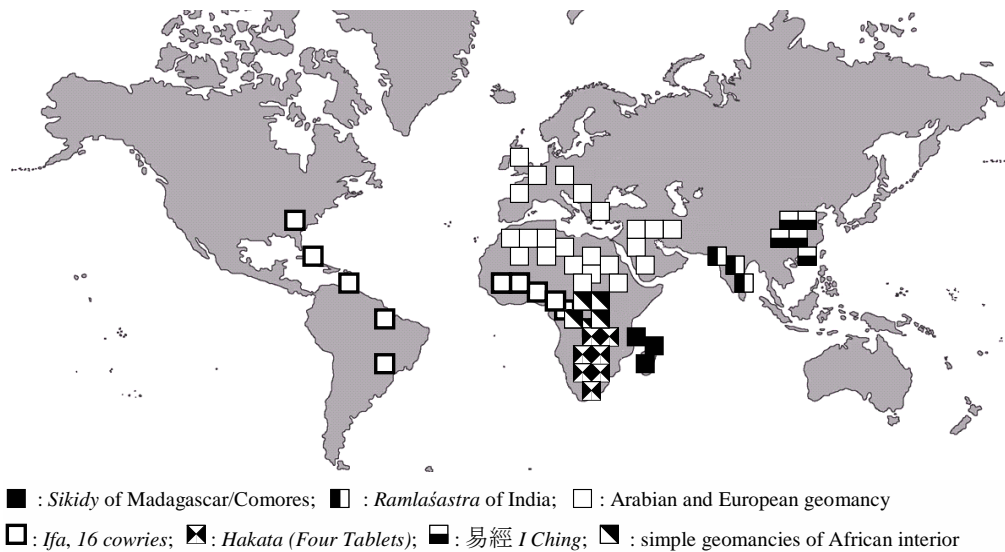
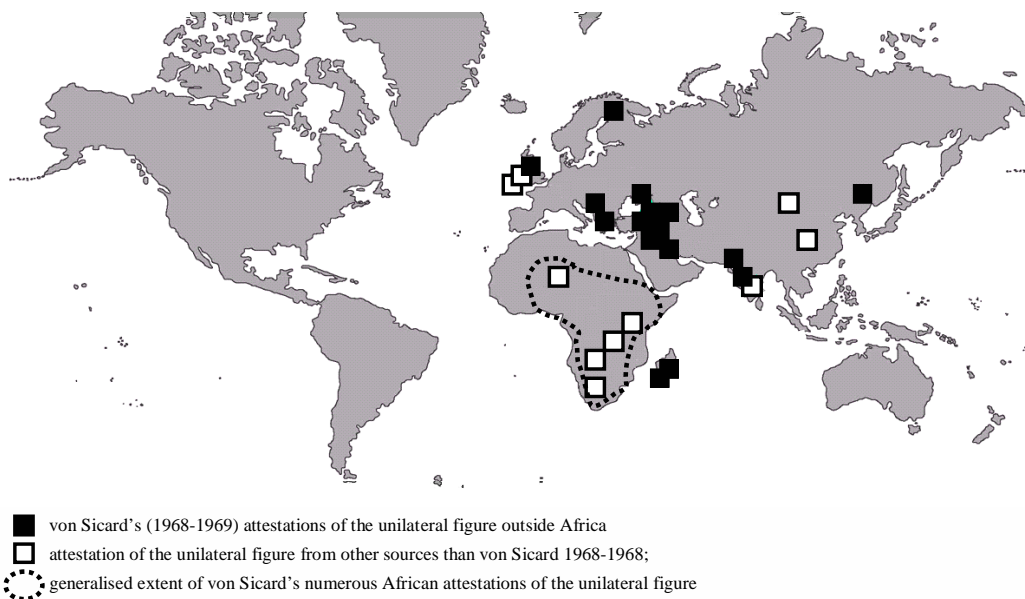


Fig. 21. World distribution of the belief in a unilateral mythical being



Sources for this map: Von Sicard's 1968-69 sources are fully referenced. Additional references are the following. Willis 1994: 108 (the Mongolian 'old white man' – apparently belonging to a widespread class of white cosmogonic gods –, who was once a shamanistic god ruling heaven and earth; he was converted by Buddha, and on that occasion his magic wand became his walking stick – the pole is a major attribute of the unilateral figure in von Sicard's analysis. Then there is the Irish Fomhórians (Willis 1994: 180), descendants of Ham son of Nuah, so by traditional implication dark-skinned; they are supposed to have only one leg and one arm, so are unilateral. The club theme reappears (Cotterell 1989: 81) in Irish mythology with the mythical Dagda [Daghda], obese, 'dragging a gigantic club on wheel' (cf. Ions 1980: 151) and in other sources he, too, is reputed to be white. Among the African Lugbara (Congo and Uganda) we find (Cotterell 1989: 182) the god Adroa, good as sky god, evil as

earth god, and having only one side to his body. In Indian mythology we meet (Cotterell 1989: 186) Vinata, one of the daughters of the Prajapati Daksha, who lays two eggs, Garuda is born from one unbroken egg but Aruna (dawn) comes from the broken egg, hence is only unilateral. Also among the 'Hottentots' (now preferably referred to as Nama) there is (Cotterell 1989: 204) the unilateral monster Hai-uri. In Chinese mythology the bird Jian 鷩 has only one wing and one eye, hence is effectively unilateral. A unilateral being is also attested among the Masai (Julien 1959), as, characteristically, an attorney of the High God Engai: a former god subdued by a more dominant newcomer god, and with considerable parallels in the Ancient Near East and the Bible.

6. Conclusion

Overlooking these four distributions, of spiked wheel trap, mankala board games, geomantic divination, and the belief in a unilateral mythical being, all four with their abundant African incidences and relatively patchy Eurasian ones, one could, admittedly, try to take recourse to the hypothesis – implicitly favoured by recent Afrocentrist thought – of an African origin, with subsequent spread to Eurasia. However, the overall flow of genes, languages, culture traits and mythologies, from the Neolithic onward, appears to be *into* Africa much rather than out of sub-Saharan Africa,²² but we know that scholars' paradigms tend to reflect the geopolitics of these scholar's times and their class position within the world system – it is therefore conceivable that the impression of a receptive Africa is merely a hegemonic imposition and nothing more. In the Neolithic, the then fertile Sahara formed the southwestern part of a region of ecological and cultural innovation – an Extended Fertile Crescent reaching – via the Nile Valley and Anatolia – all the way to East Asia, and featuring as the seed bed for all the great Old World civilisations, from Egypt to Sumer and the Shang. In this Extended Fertile Crescent, considerable exchanges of genes, languages and cultural items must have taken place, and for all we know Africa participated and contributed to this system as much as the other constituent regions. However, in post-Neolithic times, there is hardly any hard evidence of a flow out of sub-Saharan Africa *before* the massive, initially mainly forced, intercontinental migrations of the second half of the second millennium CE.

But then, Afrocentrists might object, should not our four distributions in themselves be taken to constitute such evidence? That question can be answered if we are able to situate these distributions in time. For mankala that is not difficult: the oldest attestations are from the West Asian Neolithic (Palestine and Jordan), c. 6-5 ka BP.²³ The typological varieties of the unilateral mythological being have been exhaustively explored by von Sicard (1968-1969), and its complex and heterogeneous associations as a god of the hunting, weather (which is mainly important in an agricultural context), cattle, and metallurgy bring together themes that, with the exception of hunting, are Neolithic and later. What few non-modern specimens of the spiked wheel trap Lindblom could identify (and I have not been able to find more) is late predynastic Egyptian (3500 BCE) at the earliest – if the Hierakonpolis depiction

²² As has been brought out convincingly in the *Black Athena* debate, the case of Ancient Egypt is clearly different, which is why it figures massively in Afrocentrist arguments; however, too complex to be discussed here, my views on this point are extensively covered in my contributions to this debate.

²³ Rollefson 1992; Kirkbride 1966.

qualifies as such a trap, after all. For geomantic divination there seems to be no direct archaeological evidence, but the comparative evidence (van Binsbergen 1997, 2009) suggests that it is closely related to a cosmological system revolving on a transformative cycle of a handful of elements (Water, Fire, Air, etc.), traces of which are found all over Eurasia and even in sub-Saharan Africa, which might suggest a Neolithic context but more readily the kind of pan-Old World distribution associated with the horse and chariot technologies of the advanced Bronze Age. Although the evidence is not conclusive, all this does not suggest a unique sub-Saharan origin for our four items of formal culture.

It is my contention that mankala board games, geomantic divination, and the belief in a unilateral mythical being have a distribution similar to that of the spiked wheel trap, *because their cultural history has been essentially the same*: an origin in the primary Pelasgian realm, subsequent sporadic spread to other parts of Eurasia, and from the Late Bronze Age onward immensely successful spread all over sub-Saharan Africa. If mankala, geomantic divination (and we may add: the spiked wheel trap, and in the linguistic field perhaps even substantial elements towards proto-Niger-Congo and proto-Nilo-Saharan), were traits that after very minimal beginnings in Neolithic Central Asia, and westbound itinerary via Egypt and possibly the Maghrib, happened into Africa and there underwent very massive expansion so as to end up as African items *par excellence* – so much so even that to suggest a non-African provenance is an almost an act of sacrilege and racism – this says a lot about the nature of cultural dynamics inside the African continent in the last few millennia. It is as if sub-Saharan Africa constituted, for the purpose of these formal cultural systems, a relatively empty ecological niche – fallow cultural territory that could be taken over by culturally and technologically superior immigrants. Although painstakingly collected and processed factual data do not seem to leave me an alternative, I must admit that this sounds unpleasantly like the Hamitic thesis. But there is one essential difference that, ideologically, may constitute the saving grace of the present analysis: the Pelasgian-associated groups making inroads into Africa from the Late Bronze Age onward, and bringing, presumably, the formal cultural systems under consideration here, were not in the first place or primarily ‘Hamitics’, in the sense of what this term would have meant among early 20th century scholars: speakers of Afroasiatic’. Although they may have been culturally and linguistically heterogeneous groups, they were non-invading non-Africans, but rather *proto-Africans, in fertile cultural, linguistic and genetic interaction with the populations they found already settled in the African continent, and they were carrying *Borean elements towards the two principal African language phyla Niger-Congo and Nilo-Saharan, as well as the formal cultural systems that were to be installed at the heart of the modern African cultures emerging in that continent from the Late Bronze Age onward.*²⁴

²⁴ For a more extensive discussion of the fundamental differences between my Pelasgian hypothesis and the Hamitic thesis of the early 20th century, cf. van Binsbergen (in press).

Fig. 22. An African drum constructed, essentially, as a spiked wheel trap tautly covered with skin²⁵



The Pelasgian hypothesis does far more than explaining the remarkable distribution pattern of such a relatively insignificant cultural item as the spiked wheel trap: it allows that humble implement to be raised to the status of an index fossil, revealing essential steps in the cultural history of Africa.

There even appears to be a link between the spiked wheel trap, and what many Africans and outside observers would consider the central feature of traditional African life: the African drum. In these musical instruments (*cf.* Fig. 18), often the skin is stretched over the circular end of the drum cylinder, and fastened by pegs driven into the cylinder – thus if the skin is removed, we have something that looks very much like a spiked wheel trap. This type is certainly common in South Central Africa (Zambia, Zimbabwe) – where the spiked wheel trap hardly occurs. In other parts of Africa (e.g. the West African *jembe*), the skin is more typically stretched with cords, like in West and South Asia. Is the South Central African drum a transformation of the spiked wheel trap – or perhaps the other way around?

By a very long shot, we might even suggest that

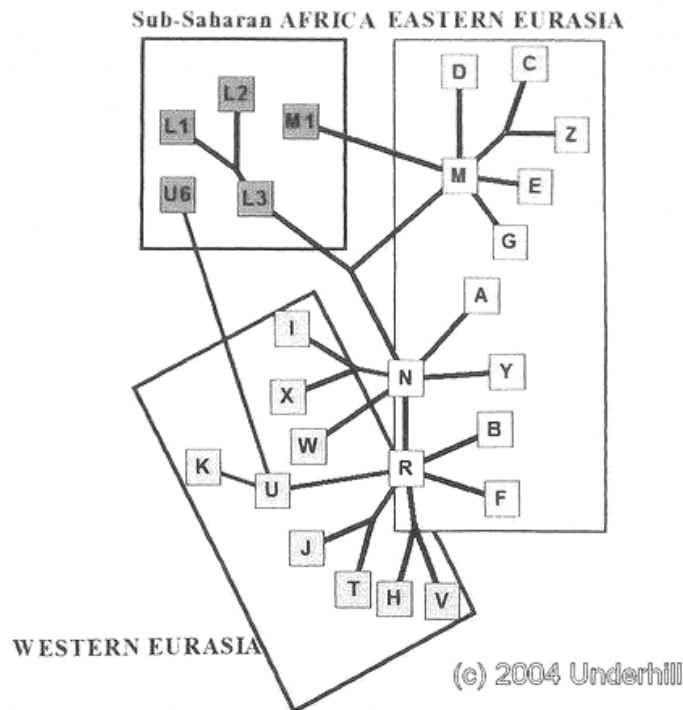
- (a) the spoked wheel, the major technological advance informing the chariot revolution that conquered the Old World from Kazakhstan c. 2000 BCE, and
- (b) (b) the spiked-wheel trap

derived from a common technological inspiration. In that case we may be inclined to give precedence to the more ancient mode of production, that of hunting, and see the spoked wheel as descending, in part, from the spiked-wheel trap; however, the restrictive global distribution of the spiked wheel trap, arguably originating from Central Asia, also makes it conceivable that the relationship is the other way around.

²⁵ Source: this photograph was adapted, with thanks, from: Anonymous, n.d. (c).

Meanwhile we should realise that the Pelasgian hypothesis identifies only one of several major processes informing African cultural pre- and proto-history in the last handful of millennia. Geneticists have discovered that the ‘Back-into-Africa’ movement, in addition to a Western Eurasian component, had a major component from East and South East Asia (Fig. 23). Clearly the Pelasgian hypothesis needs to be combined with a model highlighting the latter kind of influences; Oppenheimer’s (1998) Sunda hypothesis appears to offer part of the answer, and although I have elsewhere disputed its claims in the comparative mythological field (van Binsbergen with Marc Isaak 2008), for other aspects of African cultural history it looks very promising (van Binsbergen, in preparation; van Binsbergen & Woudhuizen, in press).

Fig. 23. Transcontinental continuities in the ‘Back-into-Africa’ movement (Underhill 2004)



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