Mythological archaeology:

reconstructing humankind's oldest discourse

A preliminary attempt to situate sub-Saharan African cosmogonic myths within a long-range intercontinental comparative perspective¹

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'Vor 25 Jahren habe ich als Programm unserer zukünftigen Arbeit der Satz aufgestellt: "Afrika muß mehr in das Gesichtsfeld der beglaubigten Geschichte und Kulturgeschichte gerückt werden." Jetzt nähern wir uns der Erfüllung dieser Forderung. Im geistigen Monument der erythräischen Kultur is das erste, sichere Bindeglied gewonnen. Damit tut sich ein unendlich weites Gebiet für vieler Augen und Köpfe Mitarbeit auf. Heute haben wir vielleicht nicht mehr als Fragen mitgebracht. Aber an einem Tage richtig formulierte Fragen stellen, heißt am anderen die dazu gehörigen Antworten finden' (Frobenius 1931: 341)

'What song the Sirens sang, or what name Achilles assumed when he hid himself among women, though puzzling questions are not beyond all conjecture' (Browne 1658; motto of Graves 1988)

'There is all Africa and her prodigies in us' (Browne in Shreeve 1996: 57)

1. Introduction

1.1. The problem

To introduce the theme of the present study, let us ask a relatively simple question: just how local, and how universal, is a story that people tell, is a myth? In a recent

¹ This is a revised revised and vey greatly expanded version of a paper for the comparative myth section of the Research Institute for Humanity and Nature (RIHN) Pre-Symposium / 7th ESCA Harvard-Kyoto Roundtable on 'Ethnogenesis of South and Central Asia', organised by RIHN, NIHU / Harvard University, the Department of Sanskrit and Indian Studies, Kyoto, Japan, 6-8 June, 2005. I wish to acknowledge my gratitude: to the Research Institute for Humanity and Nature (RIHN), and to Harvard University (the Department of Sanskrit and Indian Studies), for inviting me to this exciting intercontinental intellectual event; to the conference participants for their stimulating discussions; to the African Studies Centre, Leiden, for creating a stimulating environment in which the present, and related, research is being conducted; to Patricia Saegerman for sharing with me, as usual, the excitement and the frustrations of the present research and being my sparring partner at all stages of the project.

study of "African Folktales and Creolization in the Indian Ocean Islands", Lee Haring (2002) investigates this question by reference to the following apparently strictrly local story:

A poor man goes to the seaside and takes a fishing boat (...). For a week he fishes. Nothing. He rows out to a little rock (lilot), where he catches the Queen of the Sea. He is about to strike her when she says, "Lift your eyes, look at God (Bondyé). I'll give you a goat. You won't have to come to the sea any more. You'll say, 'By the virtue of the goat the queen of the sea gave me, I want to see everything I need!'" On the way home he is intercepted by his komer (godmother of his son). Knowing he has no such thing as a goat, she takes him a little food, invites him to her house, and while he's asleep swaps his goat for one of hers.

At home, when he tries out the queen's formula, the goat defecates in the children's bed. He decides to go back to the queen of the sea and kill her. This time she says she'll give him a little snuffbox; he is to repeat the same formula. Again the komer intervenes, giving him coffee and taking him home. She swaps snuffboxes.

At home he says the formula; bees come out and sting the children. He says, "Tonight I'm sleeping at the seaside." At 5:30 A.M. he takes the boat to the island, he fishes till 6:30 P.M., and he's about to strike the queen until she says, "This is the last time you're coming here. Today I'm going to give you a cane/walking-stick (rotin)," and the same formula. Again the komer intervenes, taking him home and giving him food and drink. While he's asleep, she tells her daughter to swap sticks – but the rotin hits her till she cries out. The komer tries; she too gets hit; she shakes him and says, "Get out of here!" He says to the rotin, "Do what you have to do." It hits her so hard that she confesses what she's taken.

He takes his things home and says the formula. Everything he needs comes to him, and thereafter he lives rich with his family.

I was surprised to find in this fairy tale from African shores, and barely concealed under African *colour locale*, the main themes of *Het tovervisje* (the magical little fish'' [add AT number]) and *Tafeltje dekje ezeltje strekje knuppel uit de zak* ([add translation and AT number]), two cherished fairy tales of my earliest childhood in Amsterdam, the Netherlands, Europe, in a largely monocultural Dutch-speaking environment albeit with considerable Jewish admixture. I was professionally surprised to meet here, at the Indian Ocean, themes like snuffbox and bees, which has played a major role my analysis of Nkoya and Ancient Egyptian mythical traditions. Was this by accident, or was the mythological continuity of sub-Saharan Africa with the Ancient Near East and with Eurasia in general much greater than is generally accepted?

Subsaharan Africa has usually been left out from comprehensive intercontinental myth comparisons (e.g. Fontenrose, Ginzburg), for a number of reasons. Deriving from practically illiterate traditions, the construction of an African mythological corpus appears highly artificial – especially since dominant approaches to African religion have stressed ritual's praxeological microdramatics over the *in vitro* logocentric verbality of myth. The available African material² tends to be fragmentary, heterogeneous, often poorly collected and poorly published, and rather

Raques 1964; Parrinder 1967; Prilop 1985; Ray 1991; Scheub, 1985, 2000; Schmidt 1986; Schoffeleers & Roscoe 1985; Schott 1982; Tembo 1997; Theal, 1886; van der Sluijs n.d.; Werner 1933; Wyndham 1921.

² Collections and studies of African myths constitute an extensive corpus, including: Baumann 1964; de Heusch 1958, 1988, 1982, 1972; Ford 2000; Fortes & Dieterlen 1965; Frobenius 193; Haring 2002; Internet Sacred Texts Archive n.d.; Jensen 1960; Kigunga 1996; Knappert 1977, 1995; Koech 1977; Madu 1996; Manton Myatt 1997; Maxwell 1983; Mudimbe 1987; Muller 1987; Okpewho 1983; Pâques 1964; Parrinder 1967; Prilop 1985; Ray 1991; Scheub, 1985, 2000; Schmidt 1986; Schoffeleers

inaccessible to non-Africanists. It often appears to be contaminated³ with Islamic, Christian, and general West- or South Asian influences, which may be held to obscure what may be assumed to be older, presumably more original and local layers. Africanists have gone on to concentrate on more topical subjects, seeking to debunk modern myths with their respective disciplines' North Atlantic rationality rather than studying old myths whose logic leaves them confused – confronting them with forms of African pre-modernity which political correctness has a problem appreciating. It is mainly in certain domains, widely apart, that African myths still manage to captivate Africanist researchers: political history and legitimation,⁴ African literature,⁵ the analysis of cosmologies informing present-day daily and ceremonial life,⁶ African philosophy,⁷ and rock art studies. A number of saliant themes have been recognised

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'The work of M. Schoffeleers on Mbona, presiding spirit of a famous rainshrine in southern Malawi, is exploited in order to cast doubt on his reconstruction of 16th and 17th-century political history. It is suggested that Mbona was the serpentine power immanent in the Zambesi; that reports of his ''martyrdom'' at the hands of a secular ruler are versions of an ancient myth of the lightning and the rainbow; that his journey to, and subsequent flight from, Kaphiri-ntiwa, scene of the Maravi creation myth, is a variant of the visit made to the sky by Kintu, the "First Man" of Ganda tradition. It is not very likely that such stories attest the rise of a great military State c. 1600 and the ensuing suppression of religious institutions.' (African Studies Centre, n.d.)

Mutatis mutandis, the same criticism could be levelled against my *Tears of Rain* (1992), as I began to realise by the end of the 1990s (van Binsbergen 1998; Vansina 1993 however is inclined to accept my 1992 argument as to the historicity of these mythical traditions).

In the light of the present analysis, the time depth of these myths may be gauged more precisely, and turns out to be measured, for some myths, in one or two hundred thousand years – which at least for those myths entirely rules out the possibility of basing a reconstruction of political history upon them.

³ The problem of contamination of African mythical material with North Atlantic, specifically Christian, notions was stressed by African critics of North Atlantic anthropology, e.g. Okot p'Bitek 1971. It was also recognised and studied by North Atlantic scholars, e.g. Nürnberger 1975. Also cf. Bourdillon 1988; Sawada 2001; Schipper 2000; Westerlund 1985.

⁴ Much work has been done on the possibility (or, considering myths' dependence on latter-day political processes, the impossibility) of extracting, from African myths, objective historical information, especially concerning processes of state formation. Cf. Atkinson 1975; Bourdillon 1972; MacGaffey 2003; Mason 1975; Miller 1980; Morton 1972; Nugent 1997; Okpewho 1998; Olatunde Bayo Lawuyi 1990; Packard 1980; Pettersson 1953; Ranger & Kimambo 1972; Ranger 1988; Reefe 1981; Schoffeleers 1992; Shepperson 1966; Vail 1979; van Binsbergen 1980a, 1985b, 1992, 1998, 1980, 1985; Willis 1978, 1981; Wrigley 1988; Yoder 1980. After the enthousiasm for this approach in the 1970s and 1980s, we are now gradually realising that much of this work, including some of my own (1992), was based on the – less and less convincing – assumption that myths documented in Africa in the 19th and 20th century encoded actual historical processes of only a few centuries' time depth, and could be thus decoded. In fact, it is now dawning upon us that this mythical material is often millennia old and that it is usually impossible to sort out how much of this ancient and entirely mythical contents has been projected onto relatively recent actual historical events. This line of argument has been advanced by Wrigley (1988), whose argument may be summarised as follows:

⁵ The application (and, in the process, transformation) of African myth in modern African literature has been the subject of a number of studies, e.g. Appiah 1994; Feuser 1988; Mafe 2004; Onwueme 1991; Priebe 1988; Soyinka 1976; Mbiafu 2002; Kandioura Dramé 1982/83, 1990; Ikupasa O'Mos 1990.

⁶ A considerable amount of work has been done on Nigerian cosmologies; regrettably, a discussion of this work cannot be accommodated within our present scope. Cf. Achebe 1975; Adelowo 1986; Aderibigbe 1999.

⁷ For the philosophical significance of myths from Africa, Egypt and the Ancient Near East, cf. Oruka 1972; Frankfort et al. 1957; Allen 1988; Simpson 1989. This is in fact a long-established theme in mythological studies (de Pauw 1774; Cory 1832; Bernal 1987). James 1954 rekindled the old Afrocentrist

in African myths, such as stories on the origin of death,⁸ and more in general cosmogonic or creation stories,⁹ on which the present study will concentrate.

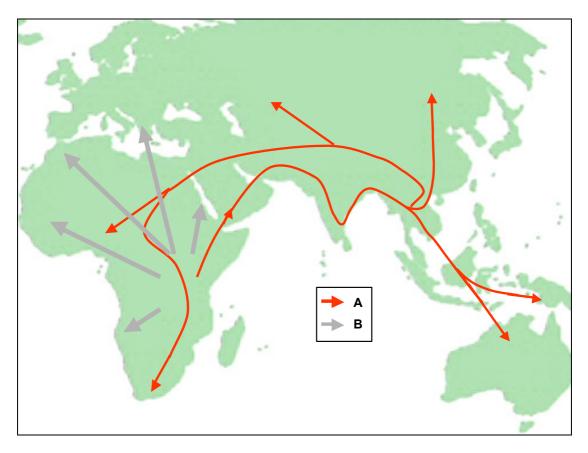


Figure 1. Simplified model of the Out-of-Africa migration (c. 140,000 BP) and the Into-Africa return migration (from c. 20,000 BP)

A. Out-of-Africa migration and subsequent major migrations of Anatomically Modern Man

B. Local spread of the pre-Out of Africa cultural package

in order to highlight the basic west-east-west movement, secondary spread and feedback effects have largely been ignored, with the exception of B. [repeat this last phrase whenever appropriate]

thesis of the indebtedness of Ancient Greek philosophy to Egyptian, and by extension to African thought including myths, cf. Bernal 1987, Lefkowitz 1996, Preus 1992.

⁸ Aetiological stories on the origin of death have been recognised as a particularly prolific genre in African mythology. Cf. Abrahamsson 1951; Beier U. 1966; Iloanusi 1984; Mujynya 1969; Ray 1980; Vecsey 1983. Besides, this genre is well covered in the general studies and collections indicated in previous footnotes.

⁹ Stories on the origin of death are indicated in the previous footnote; they form a particular subset of cosmogonic stories. Issues of cosmogony are well-covered in the general studies and collections indicated in previous footnotes, and moreover specifically in: Abiodun 1994; Achebe 1975; Adelowo 1986; Aderibigbe 1999; Arens & Karp 1989; Baumann 1964; de Heusch 1980; Griaule & Dieterlen; Griaule 1966; Guerrie 1975; Jacobson-Widding & van Beek 1990a, 1990b; Lebeuf & Mambeke-Boucher 1964; Mbiti 1987; Metuh 1978; Parrinder 1967; Zahan 1949. Some of these studies make us realise the peculiarly cosmogonic flavour that permeates many ritual and everyday expressions of African life in modern times, to which I shall come back below in the context of the discussion of agency.

Now that the past two decades' concerted efforts (by geneticists, 10 linguists, 11 archaeologists, anthropological comparativists, and myth analysts) is beginning to yield an increasingly coherent and convincing long-range picture of intercontinental population movements, cultural flows, exchanges and feed-backs with a time depth of tens of thousands of years and more, it is imperative that Africa's myths are reconsidered from this perspective. All the more so, because the African continent plays a pivotal role in the geneticists' reconstructions, not only as the original cradle of humankind some 4 million years ago, but as the cradle of Anatomically Modern Humans (subsequently spread across the globe as a result of the 'Out of Africa' movement, ca. 140,000 BP), and as the scene of massive re-immigration from Asia in far more recent periods.

Was there really any original 'Out of Africa' package to spread across the world, and did it contain any detectable mythical material? Only a few years ago such a question would be dismissed to the realm of science fiction. Yet it is with this kind of questions in mind – ultimately leading us to identify mankind's oldest stories – that Michael Witzel (2001) proposed a radical distinction between the 'Laurasian' (Asia-North America) and 'Gondwana' (sub-Saharan African, cf. Australia and New Guinea) mythical complexes, to be compared not so much by individual traits but as wholes.

'While Laurasian mythology can be described as being highly interested in origins, especially the origins of the universe and the succession of the various generations of the gods and that of four subsequent ages, the mythologies of Africa and Australia, New Guinea generally do not take notice of this question and generally confine themselves to describe the emergence of humankind in an already existing world. (...) It is significant that certain motifs are altogether missing in this Gondwana belt. Typical examples are the lack of cosmogonic myths that tell the origin of the world or of the lack of flood myths, or of details such as the lack of female witches.' (Witzel 2001: 5).

On the other hand, the notion of mankind's origin from a tree-trunk appears, to Witzel, a positive Gondwana trait, peripherally retained in some Laurasian contexts and perhaps revealing the oldest 'pan-Gaea' layer.

¹⁰ From an enormous literature, I merely mention: Cavalli-Sforza 1991; Cavalli-Sforza et al. 1994; Cruciani et al. 2002.

¹¹ Cf. Ruhlen 1991; Dolgopolsky 1998; Shevoroshkin 1991; Bomhard 1984; Bomhard & Kerns 1994; Argyle 1999.

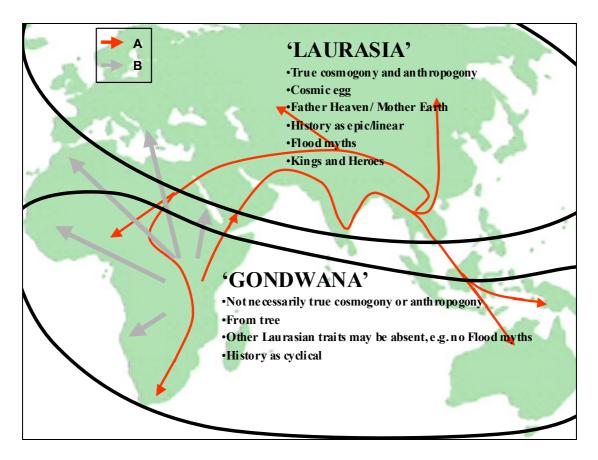


Figure 2. Michael Witzel's recent proposal for absolute discontinuity in comparative world mythology, projected onto a simplified model of the Out-of-Africa migration (c. 140,000 BP) and the Into-Africa return migration (from c. 20,000 BP). This model however is suggestive of greater continuity than Witzel's dichotomous proposal implies.

A. Out-of-Africa migration and subsequent major migrations of Anatomically Modern Man

B. Local spread of pre-Out of Africa cultural (including mythical) package

What I propose to do in the present paper is address the following question:

- a. Can we identify any mythical contents belonging to the postulated 'Out of Africa' package to spread across the world?
- b. After the Out-of-Africa migration, was any primal mythical material left to percolate inside Africa, and can we identify it?
- c. What, if any, was the effect of more recent return migration into Africa, on the corpus of African myths now available?
- d. Can we propose systematic reasons why the intercontinental dynamics of world mythology may have taken the form speculatively reconstructed here?

1.2. Why this study will puzzle the reader, and what we can do about it

Before I set out to try and answer these enormously comprehensive and important questions, I should draw the reader's attention to two conditions that set the background for the present study.

In the first place, this study is part of an ongoing, practically full-time research project spanning one and a half decade, 12 in which (after earlier historising anthropological research on North African popular Islam and Zambian precolonial and colonial religious and political history) I have sought to identify such transregional and historical long-range cultural connections as presented themselves in the context of a concrete present-day ethnographic research setting in Botswana, where I studied a 'traditional' ecstatic cult in an urban setting. In the process, I have diversified my quest into other parts of Africa than the Southern African subcontinent; into other language families than Bantu (a subgroup of Niger-Congo); into other continents than Africa; into other cultural regions than those of South and South Central Africa, including remote historical periods and their cultures, such as Graeco-Roman Antiquity, Ancient Egypt, the Ancient Near East, the Sea Peoples, the Bible World, the classic civilisations of South and East Asia, Neolithic and even Palaeolithic cultures; I have sought to contribute to the comparative world history of divination, shamanism, early astronomies, animal symbolism, and myth; I have contributed to the theory of globalisation and proto-globalisation; in order to confront the epistemological and knowledge-political aspects of the task I set myself, I developed, complementary to my identity as an empirical social scientist/historian, an identity as intercultural philosopher, specialising in the theory of interculturality, intercultural knowledge, and contributing to the Black Athena debate on that basis. A considerable number of books and articles on these topics has seen the light, and more are in press or in preparation – most of them available in provisional form on the Internet (http://www.shikanda.net). Being implicitly based on the progressive problematics and initial results of the earlier instalments of the overall project, and benefiting from the methods that I developed and perfected while working on those, the present study almost inevitably begins at a point that to the writer is obvious and well-argued, but that may be as bewildering to the uninitiated reader who lacks the comprehensive background knowledge, as to the specialist reader who has the background knowledge but enough to realise that I take truly audacious, contentious and far from main-stream positions in such controversial issues as

- the Out of Africa hypothesis,
- the origin and interrelations of Africa's four historic¹³ language families (Khoi-San, Niger-Congo, Nilo-Saharan and Afro-Asiatic),
- the playing down of regional and continental cultural differences,

¹² The bibliography to the present study gives an extensive list of my writings relevant in this connection..

¹³ Under modern conditions, Indo-European (especially English, French, Portuguese and Afrikaans) qualify as African languages hence the qualification 'historic'.

- the possibility for long-range connections across thousands of kilometres and thousands of years,
- and in general a vehement insistence on the cultural unity of Anatomically Modern Humans despite their dispersal across all continents since 140,000 and despite the recent and hypothetical status of the very idea of such an 'Out of Africa' migration.

This study thus reflects the kind of global concern that one can expect to be engendred in our present age of accellerated globalisation as brought about by recent advances in technology and recent, massive redistribution of people, cultures and creeds on a global scale – with all the initial confusion and conflicts that has brought. It also reflects globalisation in the sense that the kind of global long-range research like I am presently pursuing, across as many regions, disciplines and periods as possible, has only (or largely) become feasible because to enormous amounts of professional specialist knowledge from all over the world has come within reach because of the Internet (even though the Internet contains, admittedly, even larger amounts of nonsensical, uninformed, autodidactic and ideological nonsense).

Although the present study is meant to stand on its own, it may not by its own impetus alone be able to create the wider network of mutually supporting hypotheses. emphases, points of view that will bring the reader to appreciate this overall message of unity and continuity - used as most readers are to the images of extreme fragmentation that have become standard in anthropology, mythology, archaeology and linguistics in the second half of the 20th century CE. Colonialism, racism and North Atlantic hegemony no doubt contributed to these images of fragmentation, but they are also due to the disciplinary and institutional fragmentation of global academia, and in fact do correspond deceptively with the ordinary everyday experience of intercultural difference - until one realises how that experience of fragmentation, far from being totally inevitable, is in itself a product of the active contruction of identity with the concrete political and economic arenas of our modern world. I have taken considerable pains, through bibliographic referencing and the inclusion of short summaries of earlier findings, to help the reader see the specific mythical data set of the present study, in the light to which it appears to me. But short of referring that reader to my other work, there is nothing I can do about the fact that this is at the same time a most ambitious and comprehensive study, and a partial instalment within a wider project. Anyway, such superficial similarities as my line of argument may have with current New Age and Afrocentrist thinking should not deceive the reader: this is not a home-spun, autodidactic exercise in postmodern ideology, but a work of painstaking, methodological empirical scholarship – even though its combination of several disciplines inevitably includes disciplines in which I have only limited experience or authority.

In the second place, this is (as most of my other work – as indicated in the subtitels of some of my previous books) an *exploratory* study, whose course is determined by what is called, in nautical terms, dead reckoning. In the awareness that there is no absolute criterium by which to determine and correct our course, we must proceed on the assumption that our earlier conjectures as to our course were reasonable and justified – even though we accept, throughout, the high probability that ultimately (when we will know for sure where we are) these earlier conjectures

will be shown to be false. Such is the way of empirical explorations into hitherto unchartered territory – and it has always been my greatest passion, as a researcher, to make history where previously there was none, be it in the context of North African popular Islam in a few valleys among practically illiterate peasants of the 19th and 20th century, or in the context of the reconstruction of religious and political history of a region the size of one million square kilometres and across half a millennium, or in the much more comprehensive part projects I have pursued over the last ten years. The whole point of historicising reconstruction is to cover in text what has not been covered in text before. The text, for instance the present study, is a beginning – not an end. It is written on the assumption that it will and must be supplanted by a better text, that is better informed, better referenced, less eclectic, less influenced by my own pet theories and perspectives, better capable of being accepted in the mainstream disciplinary contexts of scholarship, and less dependent on ephemeral theories and hypotheses that may never make the grade of being accepted into the canon of their respective disciplines. What I offer in the present study is an attempt to make the unsaid and the unthinkable, said and thinkable: notably an explicit and detailed reconstruction of humankind's oldest discourse and the latter's subsequent ramification, diversification and transformation into global mythology. Without such an attempt, we will never be prompted to formulate new specific questions for archaeological, linguistic, comparative ethnographic, genetic and mythological research to fill in the obvious blanks and to correct the obvious one-sidednesses that the present study inevitably manifests. With such a study, we have a concrete baseline to depart from, and to supersede, however critically. In the process of formulating that attempt, I must take many constituent part arguments for granted without being able to enter into a detailed discussion of each of them. For instance, I base part of the present analysis the lessons which my pain-staking analysis of global leopard-skin symbolism has taught me, which has yielded inklings as to:

- the place and date of origin of shamanism,
- the interrelation between present-day languages apparently as remote from one another as Chinese, Khoi-San, English and Navaho,
- the plausibility of Cavalli-Sforza's reconstruction of Khoi-San origins in Upper Palaeolithic West Asia,
- the intrinsic connection between a chain of goddesses ranging from West Africa via the Eastern Mediterranean to Iran (Nyambi, Anansi, Neith, Athena, Anahita), all associated with weaving, spiders, weaponry, and femininity
- the widespread ramifications, into West Asia, Europe and Africa, of the conception of a cosmogonic Supreme Being associated with beginnings and whiteness, birds and the primal waters, and exemplified by the Utnapishtim/Ziuzudra/Noah figure in the Ancient Near East including the Bible world, and by the cosmogonic god Basojaun/Janus in the western and central parts of the northern shore of the Mediterranean
- similar ramifications of a weather/hunting/cattle/metallurgical god, in Africa often called by the name Luwe, with impaired locomotion, a pole/ spear/ staff/ club as attributes, often with only one side of his body, and with complex origins (as his four different provinces of jurisdiction indicate) but related with

the emergence of the concept of the celestial pole (which Eliade (1968) in his classic study of shamanism explicitly recognised as a shamanistic discovery).

Such provisional findings, which however I cannot offer here in detail let alone give the supporting evidence, form a background against which the kind of arguments in the present study become thinkable, even plausible, at least to my mind. That does not mean that these claimed results are necessarily correct – at best they point in the right direction, probably they will turn out to be ephemeral and will be supplanted by subsequent researchers' better results. Neither does it mean that, if some of these findings will have to be discarded on closer scrutiny, the entire card house must necessarily collapse. Least of all does it mean that I claim firm and ultimate, lasting truth for the analyses that follow. Against the background of my ongoing research so far, the specific argument of this mythological study seems inspiring and tenable to me - but as an empirical researcher I know that the value of an empirical result largely depends on its explicit method, and Popper (1959) has a point when claiming that it is processes of falsification, rather than truth claims, that are the hallmarks of science. Any specific part argument in what follows is not a road to the truth, but an invitation to consider alternatives, in the light of available data or of data that we would now be motivated to go and collect specifically. But as long as no new data are available, our dead reckoning gives us the right to persist on the same course, on the assumption that it may be a correct one. Essentially the present argument is an invitation to try and supplant it by a better argument, better founded empirically and with better theoretical thinking. It constitutes, in Wittgensteinian(1964: 6.54) fashion, merely a ladder to be cast away once we have used it to ascend. I try to reclaim humankind's remotest past by covering it with texts. It is, essentially, yet another myth told – in the context of my theory of myth (van Binsbergen 2003b) that, while admitting that myths are stories that people tell, sometimes some people happen to convey part of the truth, in the stories they tell.

1.3. Out of Africa as a hypothesis: initial discussion

The 'Out of Africa' hypothesis for the rise of Anatomically Modern Humans, to which most palaeoanthropologists have come to subscribe since it was first formulated in the late 1980s, has given a new lease of life to arguments of cultural diffusion. It has made us consider whether such (near-) universals of culture like articulate language, kinship, the incest prohibition, marriage, string figures ('cat's cradles'), red-white-black colour symbolism, and speckled symbolism, could have been part of the original 'Out of Africa' package.

If they were, they constitute a powerful argument for the possibility of long-range cultural inertia over tens of thousands of years. But even if they were, we would still have to explain why these, out of all possible or later institutions, could have been so utterly persistent:

 perhaps because institutions are simply more persistent than we always thought, and particularly, than our modern experience of very rapid cultural change would tempt us to generalise for all other periods of human history; or

- perhaps because their belonging to the original 'Out of Africa' heritage endowed them with particular sacrality throughout subsequent cultures and as such were enshrined in the deep structure of rituals and other religious phenomena of all cultures of Anatomically Modern Humans; orperhaps because they particularly address, in ways still to be ascertained, the genetically determined structure of the human mind, or perhaps because they particularly address survival strategies of human groups, orperhaps because the firm boundary that anthropologists tend to erect between social and genetic inheritance may be somewhat blurred, and very ancient experiences and cultural perceptions held by the ancestors of all later clades of Anatomically Modern Humans may perhaps, after all, find a way of being transmitted to later generations without a very explicit and detectable socio-communicative learning process, in other words may be transmitted not culturally but physically, genetically; here we come close to the notion, rather unpopular among anthropologists, of the collective unconscious, which Jung certainly conceived of as, in part, biologically transmitted, as peculiar to a gene pool, a people. One does not have to become a Jungian (the very notion is abhorrent to many scientists who, rather understandably, associate Jung with obscurantism): also Chomsky, one of the greatest linguists and political analysts of our times, takes the view that articulate language, as one of the main distinctive features of Anatomically Modern Humans, displays features (the uncanny speed with which human infants acquire language) that suggest a biological anchorage of what otherwise is considered as a school example of learned culture. And we must also entertain the idea that, against
 - 1. a handful of items which we can trace back to the Out-of-Africa package because they are shared, across the globe, by all Anatomically Modern Humans, and thus have displayed a maximum persistence rate, there must have been some, or many, other items in that package that completely disappeared in the 140,000 years passed since then or that disappeared in most contexts and only survive among a minority of the modern human population, even though initially they may have been part of the Out-of-Africa package.

Male genital mutilation ('circumcision') is a candidate for the latter category (2), and a brief inspection of the evidence would bring home the sheer attractiveness of the Out-of-Africa hypothesis as an explicatory tool, or at least an heuristic one. Considering the pre-modern world distribution of male genital mutilation, and making allowance for the relatively recent changes in this distribution due to the geographical expansion of Judaism from the first millennium BCE, and that of Islam from the first millennium CE, one has reason to formulate a hypothesis according to which male genital mutilation diffused from a South Central Asian course from the Upper Palaeolithic onwards, or later (Figure 3). Interestingly, the world distribution of male genital mutilation coincides with that of several other cultural features, for instance with that of the bent-knees-figure motif in sculpture (cf. Lommel 1976: 132, chart I), which, rather like male genital mutilation, is represented in the middle belt of Africa, in South and South East Asia, central Oceania (but not Australia), and selected parts of the Pacific coast of the Americas. The overlapping of the two distributions might

be more than pure coincidence: we may hypothesise that the bent-knees figure was originally associated with male puberty rites.

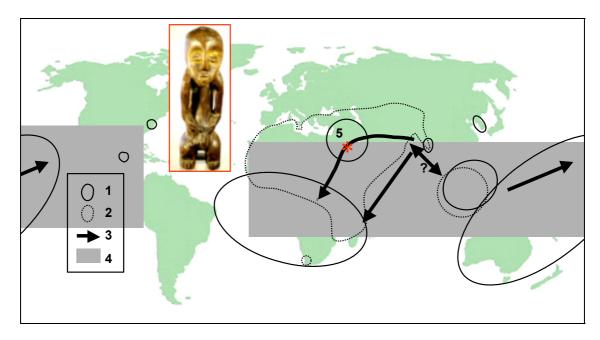


Figure 3. Distribution map of ancient male genital mutilation – Hypothesis A: diffusion from South Central Asia in the Upper Palaeolithic or more recently

- 1. Regions where male genital mutilation has been practiced 'traditionally' since pre-modern times
- 2. Extend of diffusion of male genital mutilation in the context of Islam, from Mecca (marked by asterisk), from 7th c. CE onwards
- 3. Proposed trajectory of the prehistoric diffusion of male genital mutilation
- 4. Distribution of the bent-knees figure motif (as in inset; cf. Lommel 1976: 132 chart I), which hypothesis A suggests to be also import from South Asia

Some data derived from: http://www.circumstitions.com/Images/map-mgm66.gif

However, in the context of the Out-of-Africa hypothesis the distribution of male genital mutilation would take on a rather different significance. If we simply reverse the arrows of hypothesised diffusion of Figure 3, the result is a process that would excellently fit the Out-of-Africa hypothesis. We would then suddenly be persuaded to increase the postulated time depth of the institution of male genital mutilation by more than 100,000 years, and consider it simply as part of the original Out-of-Africa cultural package.

So far this is only an attractive possibility, and one that shows the heuristic power of the Out-of-Africa hypothesis. Much further specific research on the history and distribution of male genital mutilation has yet to be undertaken before the hypothesis underlying Figure 4 can be considered substantiated; and such substantiation is anyway outside our present scope, which deals primarily with myth. Meanwhile the possibility that male genital mutilation may have been part of the original Out-of-Africa package, already opens up interesting vistas. In historical times, male genital mutilation is often found as part of a package including male puberty rites (with female puberty rites as a likely, but not necessary, counterpart) and the cult of the land – the male puberty rites, with or without genital mutilation, inscribe the novices as

locals with a ritual relation with the local land on which they depend for their subsistence. If all this could have been part of the original Out-of-Africa package, interesting new light is cast on string figures as a cultural universal: as an ethnographer, I encountered string figures in 1978 as part of the initiates' sacred knowledge in South Central African female puberty rites (see below, Figures XX and XXI [check numbers]). For some of the probable items in the Out-of-Africa cultural package a marked survival advantage may be argued, e.g. the incest prohibition, marriage and kinship. However, the ubiquity of string figures cannot be explained by any survival advantage, and it is likely that they are an example of what I indicated above as the possibility that certain elements of the Out-of-Africa package were endowed with a particular sacrality – in this case, because they were wholesale incorporated in the sacred institution of puberty rites. Moreover, when below we shall encounter the Narrative Complex of the Moon (Complex 9) as one of the circa twenty major Narrative Complexes to be found in African mythology in historical times, the connotations of kingship, regicide, suttee, and human sacrifice in general tempt us to opt for a South Asian Mesolithic or Neolithic origin for this Narrative Complex, yet its strong overtones of female puberty rites might ultimately compel us to consider that it, too, perhaps in some rudimentary form, made part of the original Out-of-Africa mythical complex.

Meanwhile, if we should adopt the Out of Africa hypothesis for male genital mutilation, we will have to admit that the apparent association with the bent-knees-figure motif is probably a red herring: the earliest attestation of figurines goes back to the Upper Palaeolithic, which is much more recent than the Out-of-Africa migration.

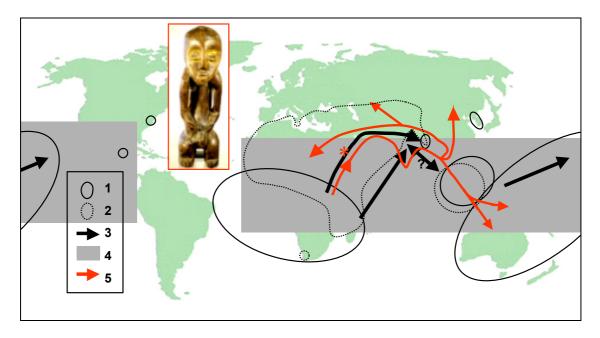


Figure 4. Distribution map of ancient male genital mutilation: Hypothesis B: part of the Out-of-Africa package (Middle Palaeolithic)

1. Regions where male genital mutilation has been practiced 'traditionally' since pre-modern

times; note that for Africa, this includes Frobenius' 'pristine' Africa (see below).

- 2. Extend of diffusion of male genital mutilation in the context of Islam, from Mecca (marked by asterisk), from 7th c. CE onwards
- 3. Proposed trajectory of the prehistoric diffusion of male genital mutilation
- 4. Distribution of the bent-knees figure motif (as in inset; cf. Lommel 1976: 132 chart I), which so coincides with that of male genital mutilation that it could conceivably also have been part of the Out-of-Africa package (although this is very unlikely: the earliest attestation of figurines goes back to the Upper Palaeolithic, which is much more recent than the Out-of-Africa migration)
- 5. Proposed trajectory of the early diffusion of Anatomically Modern Man from c. 150,000 BP; the similarities between 3 and 4 suggest that male genital mutilation belonged to the original 'Out of Africa' package (like articulate language, kinship, the incest prohibition, marriage, string figures (cat's cradles), red-white-black colour symbolism, and speckled symbolism) although it does not longer share these institutions' universality, having been dropped in most regions Some data derived from: http://www.circumstitions.com/Images/map-mgm66.gif

If it thus appears to be meaningful to ask ourselves what could have been the contents of some original Out-of-Africa cultural packages, out present argument will concentrate on the more specific question: what could have been the mythical elements in that package, if any?

1.4. The method to be followed in this argument

The method I will follow is straightforward and obvious, and consists of the following steps:

- 1. Construction of a corpus, as representative and as complete as possible, of mythical material from sub-Saharan Africa, and rendering of that corpus in one language of analysis (English). Large problems are to be confronted here, of recording method, language mastery, contamination of the data with the collectors' own (typically North Atlantic, Christian, evolutionist, ¹⁴ diffusionist, hegemonic etc.) mythical beliefs, etc. A discussion of these problems falls outside our present scope. The present argument is predicated on the assumption that these methodological and knowledge-political shortcomings do not totally invalidate the corpus. My main argument for this assumption is that the pattern emerging from my analysis of this admittedly highly defective corpus makes considerable sense; but I am aware of the circularity of such an argument.
- 2. Identification of individual mythemes in that corpus
- 3. Combining of theses individual mythemes into a much smaller number of explicit Narrative Complexes.

¹⁴ In the sense of a paradigm, dominant in late 19th c. CE North Atlantic scholarship, according to which human cultures, including expression in the fields of religion, literature and art, typically traverse fixed evolutionary stages from more primitive to more civilised, with the highest stage being, inevitably and revealingly, reserved for the militarily and politically dominant European colonising nations at the time. Such evolutionism is clearly a hegemonic Eurocentrist ideology, and is completely divorced from the modern biological evolution theory that underlies state-of-the-art, scientific Palaeoanthropology.

14

- 4. Perhaps the most difficult, and certainly the most crucial part of the whole exercise: designing an explicit methodology that allows us to advance explicit and systematic reasons (derived from astronomy, genetics, linguistics, archaeology, ethnographic distributions, modes-of-production analysis, hermeneutics, etc.) for situating each of these Narrative Complexes at a particular place and time within the overall long-range Out of Africa.
- 5. Integrating the emerging pattern into an overall, again very highly tentative scheme encompassing the entire Old World since the putative Out-of-Africa migration (c. 140,000 BP).
- 6. Taking a very relative view of such a scheme, as merely a heuristic framework promising a future growth of knowledge on the basis of
 - a. offering, in the field of comparative mythology, a complex set of explicit and coherent statements to critique and falsify
 - b. offering the very reticent suggestion that, to the extent to which (a) will not immediately and not completely destroy the present argument, we have gained a few indications for future research

2. CONSTRUCTION OF A CORPUS

Comparative mythology is one of the central themes of classical studies which, for two centuries from the late 18th c. CE onwards (Bernal 1987), have contributed considerably towards the ideological construction of Europe (and subsequently of the North Atlantic region) as culturally superior and as the legitimately dominant power in the modern world. We may take it, therefore, that an implicitly racialist or at least hegemonic exclusion of African societies and cultures from the total of world cultural achievements, was a major reason why sub-Saharan Africa has usually been left out from comprehensive intercontinental myth comparisons (e.g. Fontenrose, Ginzburg).

However, even now that (thanks to the Black Athena debate and the efforts of Afrocentrist scholars in general) such ideological reasons for exclusion no longer find public support, there remain other major reasons for comparative mythology's aloofness vis-à-vis sub-Saharan Africa: the great difficulties attending the construction of a mythological corpus for Sub-Saharan Africa. Mainly deriving from practically illiterate traditions, the construction of an African mythological corpus appears highly artificial – especially since, since the middle of the 20th c. CE, dominant approaches to African religion have stressed ritual's praxeological microdramatics over the in vitro logocentric verbality of myth. The available African material tends to be fragmentary, heterogeneous, often poorly collected and poorly published, and rather inaccessible to non-Africanists. It often appears to be contaminated with Islamic, Christian, and general West- or South Asian influences, which may be held to obscure what may be assumed to be older, more original and local layers. Africanists have gone on to concentrate on more topical subjects, seeking to debunk modern myths with their respective disciplines' North Atlantic rationality rather than studying old myths whose logic leaves them confused – confronting them with forms of African pre-modernity which political correctness has a problem appreciating. It is mainly in three domains, widely apart, that African myths still

manage to captivate Africanist researchers: political legitimation, African literature, and rock art studies. [repetitious! see p. 2]

As our analysis proceeds, a new perspective will open up concerning the question of latter-day contamination of sub-Saharan African mythical material with Islamic and Christian elements, the striking presence, in the African corpus, of parallels with Ancient Egyptian mythology, Biblical mythology, ¹⁵ and even with Graeco-Roman mythology.

Frazer (1911-1915) and Graves (1964, 1988) already stressed the parallels between African and Greek myths long ago. Modern studies along these lines include: Egbe Ifie 1997; Fortes 1959. James 1954, who claims that Greek philosophy was 'stolen' from Egypt, suggests by implication that also mythical material may have gone the same way. In fact, the Afrocentrist tendency to treat Egypt and sub-Saharan Africa as the same thing, means that the claim, in the Black Athena discussion, on continuity between Egyptian and Greek myths (cf. Bernal 1987; van Binsbergen 1997b), amounts to Greek indebtedness to sub-Saharan Africa, as far as mythical material is concerned. Much as I disagree with Lefkowitz's (1996; Lefkowitz & MacLean Rogers 1996) general position in this debate (she is totally dismissive of Afrocentrism; also cf. Howe 1999; Fauvelle-Aymar et al. 2000, where my own contribution is the only piece in defence of Afrocentrism), I can only admit that her refutation of James' anachronistic and complottist claim is effective and convincing. The situation with regard to Greek indebtedness to Egypt in the mythological field is more complex. Bernal's positive claim on this point (1987) concentrated on the equation – in the wake of Herodotus – of Saïtic Neith with Athena, not only in terms of mythical contents and attribute but even in the etymology of their names. The etymological point has been effectively shot down by Egberts (1997), and considering the close cultural, linguistic and cultic affinities between Neith's Delta environment and West Asia (with Anat, Anahita etc.), it turned out to be much more attractive to view both Neith and Athena as springing from a common origin, than as one springing from the other (van Binsbergen 1997a, 1999, 2000). Therefore, despite my general, and lasting, admiration for Bernal's Black Athena thesis, I was rather reluctant to adopt his application to mythology (van Binsbergen 1997b). However, as Appendix IV of the present study will substantiate, the parallels between Egyptian and Greek mythology however are very substantial indeed, and even go far beyond the elements selectively stressed by Bernal. One of the unexpected by-products of the present study (and this result greatly adds to the plausibility of my overall argument) is that it offers a solution to this dilemma: it sees Ancient Egypt, and Ancient Greece, as involved in the same sustained process of global mythological development, in which they share (with West Asia, and Northern Africa) the same phase, which is clearly marked by mythical themes (which I shall term Narrative Complexes) common to this entire region ('the Extended Fertile Crescent') and period: emphasis on kingship, mediation between heaven and earth, etc.; for details, see Tables XXX, XXX, XXX [specify numbers] of the present study. It can only be ideologically induced (though well-intended, Afrocentrist) myopia to speak, in such a situation, of 'indebtedness of Greece to Egypt', or more in general of 'the Afroasiatic roots of

¹⁵ Parallels between biblical and sub-Saharan African myths were already stressed by Frazer (1918). Jackson 1984 (1933) turned such parallels into a claim for the African origin of Genesis myths, which is not supported by the present argument.

Classical civilisation', or even (as James 1954 had it) of theft. Considering the enormous phase difference in cultural blossoming between Ancient Egypt (which was a fully-fledged civilisation by 3000 BCE) and Ancient Greece (which lagged behind Egypt by more than a millennium), and given the development of Mediterranean communications especially nautical ones, it is inevitable that substantial cultural borrowing took place between Egypt and the Aegean. Bernal's postulate of actual Egyptian colonisation of the Aegean, with extensive physical presence of Egyptian language and cults in the Aegean, in the 3rd or 2nd millennium BCE is unnecessary and unfounded – the extensive though fragmentary archaeological finds of Egyptian objects in the Aegean (best catalogued in Lambrou-Phillipson 1990) are better compatible with a combination of mercantile relations and tributary vassalage; during the New Kingdom, moreover, there is much evidence of Minoan and Mycenaean influence on Egypt. But this borrowing during the Bronze Age, is too recent and too superficial to be able to account for the extensive correspondences in language, thought systems, and mythology, between Egypt and the Aegean – and between these areas and Anatolia, Syro-Palestine, and Mesopotamia, and northern Africa, for that matter. For that the present study proposes to invoke a shared transformation of throughout the Extended Fertile Crescent, and materially triggered in part by the Neolithic revolution in food production, but effectively prepared by the emergence, in Upper Palaeolithic times, of she shamanistic complex (whose certical conception of the relation between heaven and earth, as organised around the celestial pole, and a reflected in kingship, offered new dispensations for religious power and politicoreligious organisation leading, by the 4th millennium BCE, to humankinds most powerful transformative package before the media revolution of our time: the package of the state, writing, organised religion, and the state. *In such a context, to concentrate* on Egyptian-Aegean relations, and to redefine these in terms of a one-way cultural dependency of one upon the other, as Bernal does, smacks of parochial myopia. It also reveals the dubious tendency inherent in all historiography (including, I suppose the present study as an attempt at long-range global intellectual history stressing the cultural and mythological unity of all of humankind): the projection, onto ancient history, of today's dilemmas (for instance, the conflicts between Jews and Arabs in the Middle East during the 1980s when Bernal discovered his 'scattered Jewish roots' and wrote Black Athena; or the so-called Culture Wars' increased domestic demonisation of African Americans during the 1990s, when after the fall of international communism and before the rise of militant Islamism the USA was 'inbetween external enemies' (Berlinerblau 1999); or (van Binsbergen 2003) the inability for North Atlantic hegemony – even in a period of increased intercontinental migration and communication – to entertain the idea of cultural and political equality between cultures, creeds and continents).

Whatever the merits of the *Black Athena* thesis (positive as a contribution to the discussion of the politics of knowledge today; myopic and distortive as a scholarly account of ancient history), the parallels between sub-Saharan mythology and that of the rest of the Old World are undeniable. They are too specific and detailed to be relegated to any hypothetical parallel but historically unrelated effects of the universal human mind. They affirm once more the very great extent to which sub-Saharan Africa is simply part of the wider world, and has intensely participated in global cultural history. However, for the explanation of most of these parallelisms I will

reject the (implicitly hegemonic) thesis according to which Biblical, Islamic, Ancient Egyptian, and Graeco-Roman mythical material ended up in sub-Saharan Africa simply – as the contamination thesis would have it – as a result of recent diffusion, into a passive African cultural realm, of mythical data emanating from these centres of cultural initiative in historical times. Such a model would merely confirm the stereotypes inherent in the Eurocentric or racialist denial, or dissimulation, of Africa's vital contributions to global cultural history, and would make Africa once again the eternal recipient of the, allegedly, incomparably high achievements to be dispensed by other continents. Instead, I propose that Ancient Egypt, the Biblical World, Greece and Rome have participated, with sub-Saharan Africa, in a broad, prolonged (largely prehistoric) process of the management and gradual, systematic transformation of a common mythological tradition. The purpose of my present analysis is to define that tradition, and to trace it through time and space across the Old World. At the present point, it is still to early in my argument to develop this point fully and juxtapose it effectively to the contamination thesis – for we have still to define the individual mythemes, combine them into a score of Narrative Complexes, situate (i.e. make specific proposal, however tentative, to situate!) each of these Narrative Complexes in place and time, and connect these proposals, to the extent possible, into one postulated continuous process of humankind's unfolding mythology since before the Out-of-Africa migration. Meanwhile, some relevant data are listed in Appendix Tables IIa, IIb and IIc.

To avoid misunderstanding: I see the continuities between sub-Saharan African mythological material, on the one hand, and Ancient Egyptian, Graeco-Roman, and Biblical mythical material largely

- a. as a result of all these regions sharing in the latest phase of that mythological unfolding (in the African case largely connected with the relatively recent return migration back into Africa), i.e. as a result of secondary feedback, much more than as
- b. the result of primary diffusion, into latter-day sub-Saharan Africa as well as into Ancient Egypt, the Biblical world and the Graeco-Roman classical world, of pre-Out-of-Africa themes.

For the current provisional and exploratory analysis, I have approached the problem of the construction of a sub-Saharan mythological corpus is a very pragmatic way. What is required is a data set that is sufficiently rich and comprehensive to bring out repetitive patterns of major mythemes, and show these mythemes in the context and in connection with other mythemes. Much like the set of literary works on the basis of which a literary scholars provisionally reports on a national literature in a particular period, such a data set need not be totally complete, up-to-date, philologically impeccable, nor randomly representative, as long as it covers a large part of the available sources, and contains the more salient types and cases. For the sake of comparative treatment of the mythemes, the data set must also be rendered in one language of analysis, for which I have preferred English. Moreover the construction of the data set needed to be concluded within a reasonably short time, so as to concentrate on analysis. A practical solution was offered by the presence of an extensive electronic collection of African mythical fragments in Rens van der Sluijs'

Mythopedia (van der Sluijs n.d.) My general acquaintance with the African material allowed me to recognise this collection's usefulness and considerable level of representativeness, to trace the provenance and bibliographic background of the materials included when these were given with adequate scholarly detail, and to add to the material on the basis of my own primary data collection in various parts of Africa since the late 1960s.

Although I consider the resulting sub-Saharan mythological corpus of sufficient scope and quality to base the present exploratory study upon, still my tentative conclusions will have to be checked, in the near future, on the basis of a much more systematic and comprehensive data set still to be constructed.

3. IDENTIFICATION OF INDIVIDUAL MYTHEMES RELATING TO COSMOGONY IN AFRICA

After constructing the provisional data set, we are ready to isolate a number of mythemes.

3.1. Key words

However, before we do so it is instructive to subject the data set to a different, less sophisticated form of content analysis: by listing – without any attempt at exhaustiveness, so omitting obvious words such as house, food etc. – words or concepts that occur, in the data set, with conspicuous frequencies. This yields Table 1.

key word	freq
sky, heaven	213
lightning	150
Moon	148
earth	131
star	86
women	77
thunder	76
son	73
rain	72
create, creation,	68
creator, creating	
king	63
mother	61
snake, serpent,	59
cf. python	
wife, wives, cf.	59
husband, couple	
fire	56
two	55
Sun	53
tree, cf. forest	51
red	49
water (including	45
primal -s)	
bird	41
four	39
stone, rock,	39
pebble	
twin	37

animal	34
girl, virgin	30
tail	29
death	28
white	27
Milky Way	26
father	25
cattle (also beef,	24
herd), cf. bull, cow	
three	24
brother	23
flood	22
rainbow	22 22
spirit, cf. ghost,	22
soul	
Venus, evening-	22
or morning-star	
daughter	21
river	20
axe	19
couple, cf.	19
husband, wife	
husband, cf.	19
wife, couple	
sister	19
boy	17
spider	17
dog	16
centre	15
dark, cf. black	15
string, thread	15
egg	14
hair	14

pole, cf. celestial	14
pole	
seven	14
spiral (also helix,	14
helical)	
vulture	14
cloud	13
crocodile,	13
alligator	
goat	13
path, track	13
wing	13
black, cf. dark	12
blood	12
human sacrifice	12
seed	12
spear	12
heart	11
lizard	11
plant	10
pot	10
sex, intercourse	10
(also: bisexual)	
stick	10
wind (also fart)	10
bull, cf. cattle,	9
cow	
cow, cf. bull,	9
cattle	
fish	9
ghost, cf. spirit,	9
soul	
Jupiter	9
1	·

naked	9
Sirius	9
soul, cf. spirit,	9
ghost	
beard	8
forest, cf. tree	8
line	8
road	8
rope	8
servant	8
shoot	8
underworld	8 8 7 7 7 7 6
cowry	7
river-crossing	7
tower	7
elephant	6
grain	6
hunter	6
impaired lower	6
limb (foot, leg,	
knee, kneecap)	
incest, cf. sex	6
mantis	6
placenta	6
point	6
triplet	6
cock, cf. chicken	5
demiurge	5
eight	5
fork	5
implement	5 5 5
insect	
milk	5
·	

monkey	5
Saturn	5
skull	5 5
termite	5
basket	4
cross (sign)	4
giant, cf. ogre	4
grave	4
horse	4
lion	4
meteorite	4
nine	4
omnipotence	4
Orion	4
prince	4
queen	4
blue	3

bridge	3
celestial pole, cf.	3
pole	
chain	3
coil, cf. spiral	3
cone, conical	3
crossroads	3
leopard, panther	3
ogre, cf. giant	3
Pleiades	3
reed	3
thunderstone	3 3 2
vomit	3
ant	2
beetle	2
bundle	2
cat	2

chameleon	2
chicken, cf. cock	2
cycle, cyclical	2
falcon	2
five	2
flame	2
hyena	2
ladder	2
liver	2
omniscience	2
python, cf. snake	2
ram	2
spot	2
ten	2
directions	1
eland	1
excrement	1

explode	1
frog	1
Mars	1
mushroom	1
pig	1
rain snake	1
rhinoceros	1
semen	1
six	1
slime	1
thunderbird	1
tortoise	1
trickster	1
worm	1

Table 1. An indication of themes, emphases and omission in the data set of African cosmogonic mythical material

Although other numbers have been analyses, the word 'one' is ignored in this analysis because its frequency in the data set cannot be determined with precision: in English translations it often has a syntactic function that has nothing to do with counting, e.g. 'the red one', etc.

Figure 5 gives a graphical summary of Table 1 for the key words that occur with the highest frequency in our data set.

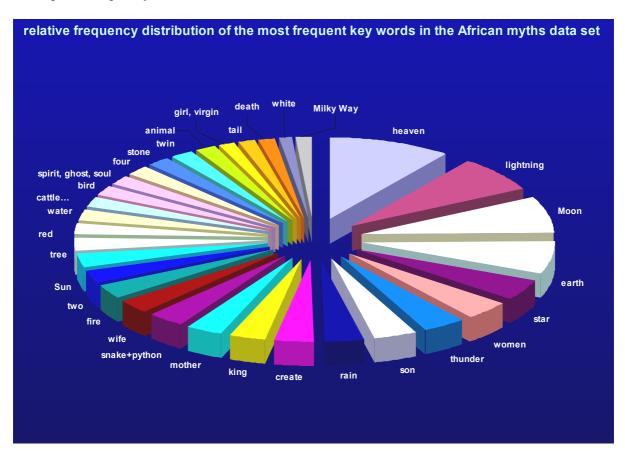


Figure 5. Graphical summary of Table 1 for the key words that occur with the highest frequency in our data set.

Since the construction of the data set is intuitive and exploratory rather than representative (i.e. it is constructed in the way a literary scholar would construct a corpus of myths, not the way a statistically trained social science would do so), no great importance should be attached to the frequencies appearing in this table, but at least they are an indication, however rough and distorted, of themes, emphases, and absences. The main initial result of such a statistical exercise is the realisation that, in terms of contents, the sub-Saharan African material of cosmogonic myths appears, at first glance, to be rather familiar, not very strikingly discontinuous vis-à-vis the mythical corpora of Eurasia.

3.2. How cosmogonic myths appear in the African context: fragmented, and of course unmarked as to provenance in space and time

Witzel's idea is that mythical traditions constitute clearly distinguishable wholes, which should be studied and compared as wholes and not analytically cut up to constituent fragments. It is the whole that defines the meaning of the constituent parts.

On the surface, the holistic emphasis does not seem to take us very far, when we overlook the available mythical material from sub-Saharan Africa (which almost entirely consists of oral traditions committed to writing by literate foreigners who are not the owners of these traditions). Unmarked as to dating and provenance, ancient and not so ancient mythical fragments turn up in a great variety of contexts: cosmogonic myths, ¹⁶ myths accompanying royal, ancestral, agricultural and initiation rites, divination, etc., and they appear to be combined and recombined in those contexts so as to make any whole that presents itself in a specific situation, as a largely local and ephemeral construct, that does not reveal a time-honoured, widespread integrated formula at all.

The narrative repertoire of any recent community tends to be large, and extremely heterogeneous, cosmogonic myths mixing freely and without clearly distinctive markers, with folk stories, riddles, moralising tales, epics, chronicles, family traditions, etc. Myths are usually not marked as myths, and their elements end up in the general narrative repertoire of a community. If they were once attached, as aetiological elements, to specific aspects of the natural world, this connection may be broken, and the narrative elements go on to lead their own independent further life without any conscious and consistent connection with the natural world anymore. Fragmentation, erosion, loss of meaning, may be typical of the trajectory of mythical

¹⁶ Throughout this argument I will employ the term 'cosmogonic myth', instead of the more usual 'creation myth'. Creation implies the conception of personal agency, of a creator, which may or may not be present in the very ancient mythical material we are going to analyse. On the other hand, cosmogony emphasises the origin of the world at large over the origin of humankind ('anthropogony'), whereas 'creation' may be used for both forms of origin. For the purpose of this argument, cosmogony will simply be taken to imply, as one of its aspects, anthropogony; but in all cases without the necessary implication of a personal creator – which, however, is neither excluded and may be invoked in specific cases.

material, especially when that trajectory leads through a period of massive displacement of people and rapid and profound social, political and economic change, as Africa has seen during the past two centuries.

In apparent contrast with Witzel's insistence on comparing 'whole' mythologies, myths present themselves in Africa in the first instance as fragmented and fragmentarily combined. However, the analytical scholarly mind may yet perceive, i.e. may yet be able to reconstruct, underneath these intertwined fragments, the transparent order of a number of a number of distinct Narrative Complexes existing side by side, each with its own contents of specific, interrelated mythemes, and each with its own proper locus in space and time. The construction of our argument amounts to identifying these Narrative Complexes, and findings clues for situating them in space and time.

Just how evasive and situational African cosmogonic myths can be, is illustrated by the following, beautiful and moving example from the Kuba in the Congo Republic (Vansina 1978 [check]; van der Sluijs, n.d.):

(110, 111, 112): Woot, the founder of the tribe, commits incest with his sister Mweel and then abandons her, causing unending darkness to descend on the earth. Mweel then sends messengers in the form of the birds of morning to her brother, who eventually returns and establishes a social order in which men exchange their sisters in marriage in an orderly system. The sun then rises again.

On the surface this is primarily a myth meant to support the kingship's monopoly of managing and restoring social and cosmic order, and as such it may be recounted at crucial moments of the kingship, particularly during inthronement of a new incumbent. But in fact the episode of Woot and Mweel (under which names I suspect the pair of great luminaries, Sun and Moon) replays the moment of creation, and amounts to a cosmogonic myth.

How cosmogonic themes may be hidden in the form of anecdotes apparently featuring humans of flesh and blood, as if the cosmogonic moment is long past, is particularly clear from the many myths in our sub-Saharan African data set relating to virgin birth, e.g.:

The first ancestress was Daura, a virgin hunter, dressed in a man's clothes (Haussa).

Dyambewu was born of his mother Hanawu, who was a virgin. According to others the mother was Senwa or Nehanda, a name meaning power from heaven (Karanga).

- (45, 1) Heitsi-Eibib was born from a virgin [a cow, the celestial cow egyptian motif; also the honey motif is egyptian] who ate a particular kind of grass. (Khoi-San)
- (1) The hero Mikombo was born by the virgin Kalowa. He had a little red feather on his head and a string of red beads around his neck (Luba, Kasai).

(206) Upon the king's death, all the fires in his domain were extinguished (Mundang, Haussa, Gwari, Nupe, Mossi, Yoruba, Ruanda, Segue, Wadoe, Bemba, Lumbwe, Hemba, Mambwe, Lunda, Kanioka, Ngala, Bihe). Upon the accession of the new king, a pubescent boy and virgin appeared naked before the king, rekindled the fire with their fire-sticks, performed their first act of love, and were buried alive.

Moving and terrible, this myth is about reviving kingship by re-enactingthe life force invested in the first human couple, followed by the fall of man; therefore, as an

anthropogony, it is part of a cosmogony. However, since there are also practices of sacrificing humans to Venus at the eve of war, in Bant-speaking Africa, then Venus (which is not for nothing mars' wife in roman mythology) is probably a war goddess in bantu africa, just like also neith and athena had the same combination of feminine virtues + warfare (perhaps this combination expressed not the accumulation of both types of virtues in one person of the female gender, but simply the fact that this divine figure was bisexual; female amazons etc. Is then a perversion of this belief in a combination, at a time when the bisexual nature of the divine creator figure was no longer understood [edit this comment slightly]

(205, 206) The custom of putting their kings to death prevailed until recently. The chiefs strangle the king in a hut which has been specially built for the occasion, with a living virgin at his side. And, when the two bodies had rotted, their bones were gathered into the hide of a bull. A year later, the new king was named, and on his predecessor's grave cattle were speared to death by the hundred (Shilluk).

Cf. the Greek myth of Aristaeus and bugony i.e. the birth of bees from rotting cow's meat [does this appear in Appendix IV?]

The divine hero is born of a virgin (Bushmen: Tsuni-Goam).

Despite their apparently anecdotal and anthropomorphic form, these myth are really cosmogonic. For virgin birth is the logical solution to the puzzling situation where experience tells us that only the female body can produce, even if no male body has yet been produced to impregnate it. These myths involving virgins are an example of the cool rationality invested in African cosmogonic myth. I believe it is the logical puzzle more than any ancient ideal of adolescent virginity that informs these myths; although in early modern times certain African environments (e.g. in South Central Africa: Bemba (Rasing 2001), Nkoya, Bemba, Shona/Kalanga, Ndebele (van Binsbnergen, field notes 1972-1999) are reputed to put high stakes on a girl's virginity, which was to be assured by frequent physical checks and whose loss could be punished by death.

Admittedly, an approach that accepts that cosmogonic myth may come in many disguises and in all sorts of formal and informal social situations, puts a high stake on the scholar's reintegrating and reconstructive consciousness, and risks to be captive to the scholar's own powers of creative invention. That has little to do with the preliminary nature of the present argument, but largely derives from the fundamental change of format that is involved when we proceed from myths as told by the actors who own and live them, to myths as represented an analysed by the scholar. I used the same method (of a reconstructed complete narrative model) also for much less preliminary analyses involving cases studied and reflected upon for years, on the basis of relatively abundant material – like the myth of Sidi Mhammad in northern Tunisia (van Binsbergen), [add ref] or the mythical cosmology of South Central African kingship (van Binsbergen 1987, 1992).

Working through the extensive data set I distinguished, as first, as many distinct mythemes as I could discern distinct minimal story lines. Of these I could identify over two hundred, in the first analysis. Since cosmogonic myths are basically statements on the constitution of the world at large, I found it impossible to distinguish clearly between

• mythemes, which are basic narrative elements in myth, and

• 'cosmemes', a new term I coin for basic descriptive elements in cosmology.

Appendix I offers an detailed, reasoned overview of the over two hundred mythemes which I distinguished in the data set.

Against the background of the established tradition of research into myth and fairy tales, any attempt at the classification of motifs must be evaluated and calibrated against the Aarne-Thompson numerical motif index, for which Aarne laid the foundation in the beginning of the 20th c. CE. 17 Although a wealth of mythical material from all over the world has been processed according to this index (cf. British Columbia Folklore Society 2000, which provides an impressive bibliography), the exclusion with which sub-Saharan Africa is treated in comparative mythology is clear from the fact that hardly any African material has been thus indexed. 18 It would be a major task in its own right to process, in terms of the Aarne-Thompson index, the sub-Saharan African cosmogonic material on which the present study is based. Without denying the desirability of such processing. I submit that my present purpose is not classification but exploration. Therefore I feel justified to postpone till some other time, and preferably to leave to some other researcher, the task of bringing my own tentative classification of sub-Saharan African cosmogonic myth in line with the Aarne-Thompson classification. Probably such a further analysis will cast additional light on the long-range connections I claim to discover in the present study, and in that respect it would be an obvious next step. On the other hand, the present study implies the claim that much, if not all, of global mythical material may be subsumed under the twenty Narrative Complexes I tentatively distinguish, and in that respect my approach implies an attempt to establish the kind of comparative connections for which the Aarne-Thompson index was initiated but which research along those lines appears to have seldom delivered.

4. COMBINING THE OVER TWO HUNDRED INDIVIDUAL MYTHEMES IN OUR DATA SET OF SUB-SAHARAN AFRICAN COSMOGONIC MYTHOLOGY, INTO ABOUT TWENTY NARRATIVE COMPLEXES

Two hundred distinct mythemes is too large to handle meaningfully in a qualitative analysis looking for historical patterns. Reducing my African mythological data set further, from distinct minimum mythemes to a far smaller number of Narrative Complexes, has required a major effort. Three factors at least added to this difficulty and have prevented the result from being more than preliminary and unsatisfactory at this early stage:

¹⁷ Cf. Aarne & Thompson 1973 [and other editions cited in the present study]

¹⁸ With the exception of the unpublished PhD thesis by Clarke (1958) for West Africa; and two collections of Ancient Egyptian material (Maspero 2002; El-Shamy 1980.

- the overlap and the similarity between the various mythemes and the various Narrative Complexes makes it often difficult to classify a mytheme under one particular Narrative Complex
- the data set is very incomplete and by no means cover all mythical material from all sub-Saharan Africa
- in the reconstruction of the Narrative Complexes, much is rendered explicit and is streamlined and consistent, that, in the original narratives, is left implied and contradictory; as a result, as work on the classification of the mythemes data set progresses, the progressive availability and taking shape of the Narrative Complexes persuades one to look with a new eye at the individual mythemes, and perhaps to read elements in them that, without the reconstruction of the Narrative Complexes, would never have been made explicit

All this lends a certain artificiality to the exercise, which however is not appreciably greater than any hermeneutical or ethnographic undertaking.

As a result of the inspection of distinct mythemes in the preceding section (cf. Appendix 1) we end up with the construction of a more limited number of Narrative Complexes, as enumerated and discussed in detail in Appendix 2. Table 2 simply lists the twenty Narrative Complexes without further commentary.

Narrative Complex 19	
1. The separation of heaven and earth ²⁰	
2. The connection between heaven and earth after separation	
3. What is in heaven?	
4. The lightning bird (and the world egg) ²¹	
5. The mantis	
6. The ogre	
7. From the mouth	
8. The stones	
9. The moon	
10. The earth as primary ²²	
11. The primal waters and the flood ²³	

¹⁹ At the present stage of this study, I am not ready to give extensive bibliographic references to all the twenty Narrative Complexes enumerated. In the footnotes below, I will confine myself to those Narrative Complexes that have received considerable discussion in the available literature. Such discussion as the other complexes warrant, is largely given in the text of the present study.

²⁰ This implies the idea of the withdrawal, to heaven, of a Supreme Being who previously walked on earth. The idea of the 'deus otiosus' has been much discussed in West African religious studies, e.g. O'Connell 1962.; Perner 1992; Sawyerr 1970; Shelton 1964, 1965.

²¹ In addition to the general works on African mythology and specifically cosmogony cited in previous footnotes, the theme of the lightning bird and the cosmic egg appears in Schlosser 1972. Comparative references include Cardona 1994; van Binsbergen in press, [Ethnicity in Mediterranean protohistory]

The earth cult has long been recognised as a mainstay of religion in West Africa. Cf. Fortes [add years]; McCall 1982; Tengan 1991; van Binsbergen 1988; Witte 1982. The present study suggests that the Narrative Complex of the earth as primary may have belonged to the 'Out of Africa' package and hence is over 140,000 years old. In that case it is quite likely that the earth cult as recorded in West Africa, North Africa and the Mediterranean region (including Ancient Greece) in recent centuries and in Antiquity, derives directly from the pre-Out of Africa package through slow diffusion across Africa, and did not, like most of the other Narrative Complexes to be considered in the present study, make the detour via South, South East, Central and West Asia back into Africa.

In addition to the general works on African mythology cited in previous footnotes, the tree theme appears in: Frobenius 1931; Muller 1983 writes on cosmological and ritual aspects of flood and drought in Central Nigeria. Sutton 1977 represents the idea of an African 'aqualithic', postulating a water-based modes of production situated in the 8th mill. BCE, and associated with the desintegration of the Nilo-Saharan language family; incidentally, the rise of Niger-Congo is postulated for the same period, and postulated to have occurred in the Lake Chad region. The distribution of flood myths in Africa is presented elsewhere in the present argument, in correlation with tower myths. World-wide, the distribution of flood myths has received much attention from scholarship, although in that comparative work the African dimension has usually been ignored; cf. Andree 1891; Frazer 1918; Gonda 1978; Hastings 1908-1921, s.v. 'deluge'. Of the extensive Assyriological material I only mention Lambert & Millard 1969. The Old Testament studies on the Flood are numerous, and often take the Assyriological material into account; for a recent review and very extensive references, see Soggin 1997. The comparative studies bring out the fact that flood stories are concentrated in South and East Asia, the Pacific, and the circum-Pacific region, with extensions in West Asia and South-Western Europe (Graeco-Roman mythology: Deukalion and Pyrrha etc). This distribution, and additional reasons partly to be discussed in the presetn argument (Table XXX; also see van Binsbergen in press [sea peoples]) suggests that the flood myths, and the Noah figure associated with it, have their origin in East or Central Asia; their Pacific and circum-Pacific spread covers a huge area but can be accounted for within a relatively short time-scale, considering the peopling of Oceania from South East Asia within the last few millennia. Anati 1999 sees the almost global spread of flood myths as an indication of the geologically attested rise of the sea level by as much as 200 m at the beginning of the Holocene (c. 10,000 BP). This seems a little recent to account for the wide spread of the flood theme, but may just

12. From under the tree ²⁴
13. The cosmic / rainbow snake ²⁵
14. Fundamental duality ²⁶
15. The spider and feminine arts
16. Shamanism, bones ²⁷
17. Spottedness and the leopard
18. Honey and honey-beer
19. The cosmogonic virgin and her son/ lover
20 Contradictory messengers bring death

Table 2. Overview of a set of twenty cosmogonic Narrative Complexes as constructed on the basis of the set of over two hundred individual mythemes (for reasoned details, see Appendix II)

do. More problematic, within such a relatively compressed time scale, but still not prohibitive, is the association between the flood theme and that of the primal waters attested (cf. Bahn 1978; Ouzman 1995; Ego n.d.) both in European rock art studies relating to the Upper Palaeolithic, and to the Khoi-San (now in Southern Africa, presumably with a West Asian origin c. 10,000 BCE). All this corroborates my thesis that, in Africa, flood myths are not at home and do not belong to the original 'Out of Africa package, but instead testify to the 'Back into Africa' migration from Upper Paleolithic times. Incidentally, this leaves the possibility that Sutton's 'aquatic civilisation' never had any actual existence on African soil, but merely reflects a mythical theme introduced into Africa from West Asia c. 10,000 BP.

c. 10,000 BP. ²⁴ In addition to the general works on African mythology and specifically cosmogony cited in previous footnotes, the tree theme appears in: Calame-Griaule 1969; and comparatively, mainly outside Africa, in: Brosse 1990; Meuli 975.

²⁵ In addition to the general works on African mythology and specifically cosmogony cited in previous footnotes, the rainbow theme appears in Claeys 1972 (a novel on the rainbow featuring the African mythical characters Cliluba Ilede and Luweej); de Heusch 1985: ch. 3; Griaule 1948; Lommel 1976: XXX [add detail] and 131; Reefe 1981; Triebels 1958; Wrigley 1988. Also cf. Hoff's 1997 study of beliefs and practices relating to water snakes among Khoi-San speakingf hunter-gathers. Moreover, comparatively, mainly outside Africa, the rainbow appears in: Bleeker 1975; Draffkorn Kilmer 1987; Hastings 1908-1921 s.v. 'rainbow'; Nevskij 1934; Plato, Republic, X (where Plato gives the celestial pole the same colours as the rainbow, whilst clearly distinguishing between the two); Triebels 1958; Turner 1993 (as just one of many Old Testament studies dealing with the covenant between God and Noah, Genesis 8 [check number] . As for the snake, this is such a pervasive theme in comparative mythology as to preclude serious bibliographical referencing; Fontenrose 197... [add year] is an obvious entry into this domain.

²⁶ In addition to the general works on African mythology and specifically cosmogony cited in previous footnotes, the theme of fundamental duality appears in de Heusch 1958 (royal incest in Africa), and comparatively in Baumann 1955

The literature on shamanism is too voluminous to treat, however, superficially, in the present scope. Elsewhere in this argument I offer arguments why I consider shamanism part of the Back-to-Africa migration, especially in recent millennia, with Buddhism and Islam as major vehicles which however undergo much transformative localisation on African soil (so much, in fact, that a specific Buddhist influence on Southern African ecstatic cults such as *sangoma* has hitherto scarcely been recognised; however, see van Binsbergen 2003). Elsewhere (van Binsbergen in preparation (e) and n.d. [leopard, also on Internet] I offer a reconstruction of the Old World history of shamanism, giving many relevant bibliographic references. This reconstruction results in Central Asia as proposed location and the Upper Palaeolithic (c. 15,000 BCE) as proposed date, for the emergence of shamanism, in a milieu presumably marked by, probably interrelated, proto-Khoi-San, proto-Dene-Sino-Caucasian, and pre-Nostratic linguistic elements. The specific methodology and data leading to that reconstruction constitute a book in their own right and cannot be summarised here without distortive simplification.

5. REDUCING THE NUMBER OF COSMOGONIC NARRATIVE COMPLEXES: WHICH NARRATIVE COMPLEXES MAY BE CONSIDERED TRANSFORMATIONS OF OTHER NARRATIVE COMPLEXES IN THE SUB-SAHARAN AFRICAN MYTHOLOGICAL MATERIAL?

We may now proceed to assess whether all the twenty Narrative Complexes as distinguished in Table 2 are irreducibly independent, or whether, on the contrary, some of them may be considered transformation or equivalents of the other Narrative Complexes. If the latter is the case, we will end up with a somewhat smaller number of Narrative Complexes for dating and for reconstructing of the pre- and post-Out-of-Africa history of Old World.



Figure 6. Lapp shaman's drum, c. 1800 CE

Muenchen Museum fuer Voelkerkunde; cf. Lommel 1976: 45, Fig. 12; showing in its three registers the division of the world into the three realms of underworld, earth and sky (with luminaries), with the central pole uniting the three spheres. Mark the figure (by implication shamanic) climbing up the pole, and the figures straddling the horizontal boundary lines

Narrative Complex (number and description)	Discussion
1. The separation of heaven and earth	Is largely identical to 2, and presupposes 10. Not separately needed

2. The connection between heaven and earth after separation	Largely identical to 14, developing from 19; shamanic elements; upward gaze; agriculture, animal husbandry, kingship ²⁸ and perhaps early metallurgy; the celestial axis, which is a central theme in this Narrative Complex, may derive from 12, but mediated through more recent, shamanic elements (16) – which have enshrined astronomical knowledge for which the Upper Palaeolithic fire-bore, and the Neolithic churn or mill with animal traction, are central images; much emphasis on demiurge (< 19), mainly as rain and lightning (cf. 4). This is the central Niger-Congo mythical complex, encompassing the entire Southern half of Africa. Its Asian overtones are another reason to reconsider the extra-African antecedents of Niger-Congo/Bantu. But of course, the Narrative Complex of the 'Separation of Heaven and Earth, and their subsequent Connection' (through a line, pole, ladder, spider's thread, celestial axis etc. etc.) is by no means a feature peculiar to the African mythical corpus, but is widespread in Eurasia, where it has shamanistic connotations (cf. Figure XXX)
3. What is in heaven	Derives from 4, 13, 19, but in fact largely identical with 2; along with the protagonists of 19 it is the cosmic rainbow snake who (as adversary) inhabits heaven in 2 (and 3) – absorbing the trickster's role; not separately needed As set out in detail in Appendix V, for the case of Heracles/Hercules with his very many picturesque adversaries, there is an enormous possibility for epical concentration and free variation on this point. The battle between the male hero and all sorts of adversaries (cf. Fontenrose 1980, where all such battles are comparatively analysed in great detail) is often an elaboration, full of Hollywood epic effects and embellishments which have nothing to do with the fundamental opposition between the protagonists) of the basis themes of the Complex 'What is in heaven'. Unerlying such anecdotal 'real life' embellishment, we may detect a very simple, abstract opposition – of which even the juxtaposition of Lightning/Rain versus Rainbow is already an anecdotal rendering.
4. The lightning bird (and the world egg)	Lightning as the central cosmogonic image, both of world making and of latter-day world renewal, the lightning bird and its world egg are very prominent cosmemes in the sub-Saharan African mythical set. The world egg is central to Laurasian mythology. Note: It is possible to construe many of the East, South Central, and Southern African attestations of this Narrative Complex as being under South Asian influence. In that case the cosmogonic theme of lightning/world egg, which is truly central to the entire data set, would not be situated as part of the Out-of-Africa package (African Middle Palaeolithic), but in Middle or Upper Palaeolithic South or South East Asia. Hence the question mark in both right-hand columns to the right. The bird mounts of South

²⁸ In another footnote I comment on the symbolic role of the eland in Khoi-San context. It is surprising that kingship is associated with the eland (hefu – a hefu tale is sacred to the king in western zambia; cf. Gluckman 1968 (1943); van Binsbergen 1992). From the khoi-san material we may distil a parallel between the moon and the hefu. Both are said to be created out of the shoe of Cagn. If this shoe = the mantis's white egg sack = cosmic egg, then we have either that the moon can count as the cosmic egg, .. But it is also possible that it is not the moon but the lightning, which is really primarily involved here. However, nkoya kingship is not primarily associated with the lightning but with the rain. However, that often coincides. It is clear that nkoya kingship has to do with the sun but maybe there is also a link with the moon which has been obscured by later developments? That is certainly the case, for one builds a ladder into heaven in order to pick the moon from heaven. The murder on the king by his women (whose main task it is to ascertain if he is not impotent) – even though they themselves will be the victims through suttee) also points in this direction, for it has as its equivalent the myth of the moon who is constantly killed and restored by his wives. Suttee has in general a link with south asia, but one finds it also in china and in earliest egypt, and in general in eurasia. Besides, if the king is the moon, then to address a religious leader as 'mbedzi' (one of the puzzles I encountered during fieldwork on ecstatic religion in Botswana around 1990; cf. van Binsbergen 2003: ch. 8) may be the same as addressing the king as moon. Incidentally, is there a moon clan among the douala, which would explain the use of the word mbedzi in that context? I have not be able to ascertain that. Frobenius 1931 gives a Karanga myth

	Asian gods are a subjugated Lightning Bird.
5. The mantis	Probably a transformation of 4, but with shamanic elements (16). Association, in Southern Africa, of mantis-featuring myths with Khoi-San speakers would superficially suggests great antiquity of Complex 5 and even its being part of the Outof-Africa complex, but recent genetic findings favours West or Central Asian rather than Southern African origin for Khoi-San speakers and hence for Complex 5. Details seems to confirm this, such as the reference to shoe, moon, and the fact that in Ancient Egyptian shamanism (which is closely connected with the emergence of the state, under unmistakable West Asian influences) the shaman's familiars are spider (cf. 15, and 2), midge, and locust/mantis (Helck 1984). The trickster theme comes back in 17, and is typical of hunting and gathering as a mode of production – although it was subsequently incorporated in 2 as an aspect of the demiurge (cf. 19)
6. The ogre	Rather akin in form and function to 11, but simpler. In combination with 19 produces the widespread Python vs. Apollo mytheme. Essentially a narrative to explain the rescue of Being out of Non-being. Occurrence in Australia and New Guinea suggests it to be part of Out-of-Africa package, which is astonishing in view of its sophisticated discursive message. As argued in the main text, I would rather view this Narrative Complex as a secondary transformation of 11.
7. From the mouth	Masculinising reinterpretation of 19, late; cf. Ancient Egyptian forms of male substitution of female reproduction: Atum's masturbation producing the first pair of creatures (Tefnut and Shu), the tears of Re ^c producing humankind, Athena's birth from her father's head
8. The stones	Not specific to any particular mode of production, which suggests great antiquity. Originally part of 10, but reinterpreted in the light of 19 (stones represent demiurge) and 2 (stones from heaven = meteorites = iron; in the latter case Neolithic or later) – hence not separately needed
9. The moon	Connotations of cosmic egg (4); of women's cults cf. 10, 19 and 15; of human sacrifice; of kingship and royal cult (also star cult) including human sacrifice, regicide and <i>suttee</i> ; incompletely integrated in 2. The penetration of several major other complexes suggests great antiquity of this complex. Conus shell lunar ornaments distributed in East and Central Africa and New Guinea. Despite the lunar dominance in the data set I hesitate to propose a pre-Out-of-Africa origin, and would rather propose South or South East Asia.
10. The earth as primary	Probably associated with puberty rites/ circumcision; in recent millennia largely incorporated in 2, but much older – the distinction between upper world and underworld seems more primary, preceding the upward gaze of 2; origin of animals, much later (Neolithic) limited to cattle; in recent millennia, purification after murder has become part of this complex but comparative evidence suggests that such purification is shamanic 16
11. The primal waters and the flood	Separation of the waters; flood in punishment of murder (no earth-related purification), really discontinuous with 10; incompletely accommodated to 2 (the demiurge, Rain/Lightning, here becomes an agent of destruction; distribution of the flood motif in Africa widespread but mainly along the coast – suggestive of maritime diffusion from South Asia and/or Oceania); comparative evidence suggests (Central /South East/East) Asia Upper Palaeolithic or Mesolithic as place of origin – cf. the global dramatic rise of sea level at the onset of the Holocene
12. From under the tree	Not specific to any particular mode of production, which suggests great antiquity. Intercontinental distribution of tree burial (New Guinea, South and South East Asia) compatible with belonging to Out-of-Africa package. On the other hand associated with the Tower motif, which has a restrictive distribution in Africa suggestive of West Asian origin; so does the shamanic connotation of West African bard, singled out for tree burial
13. The cosmic / rainbow snake	Not specific to any particular mode of production, which suggests great antiquity. There is a link with 10 and 11, and along with the protagonists of 19 it is the cosmic rainbow snake who (as adversary) inhabits heaven in 2 (and 3) – absorbing the trickster's role. Distribution in Australia suggests the Complex to have been part of the Out-of-Africa package.

14. Fundamental duality	Here the asymmetry between senior cosmogonic virgin and her son/lover has moved towards symmetrical balance, due to male ascendance in modes of production (metallurgy/petty commodity production, hunting, raiding/war) dominated by them. The emphasis on bisexual attributes of gods also belongs in this Complex. Much of the symbolic elaboration of 2 is in terms of this complex. Late (Baumann 1965).
15. The spider and feminine arts	The spider features in three ways: as trickster (cf. 5, 13, 17, 20); as connection between heaven and earth and hence, by substitution, as Supreme Being (Nyambi, Anat, Neith, Anahit, Athena etc.); and finally as the patron of weaving. The martial connotations of these virgin goddesses may be explained by (or may have secondarily inspired the institution of) female warriors, but is more likely a consequence of 14. There is a link with shamanism (see under 5). The concentration in a core area stretching from West Africa to the Indus suggests this to be a relatively late Complex.
16. Shamanism, bones	Although shamanic themes abound in the data set, and have particularly shaped 2 (ascent and descent along the celestial axis is shamanic), shamanism is not at home in Africa, and I refer to my other work (especially on leopard-skin symbolism worldwide) for the complex linguistic, iconographic and archaeological argument to the effect that shamanism emerged in Central Asia in the Late Palaeolithic
17. Spottedness and the leopard	In the sub-Saharan African mythical material, the leopard appears in two fundamentally different forms: (a) as the Exalted Insider (often associated with the sinister sides of kingship, but essentially the trickster, and as ancient); (b) as the Sacred Outsider, who as a sign of sacrality and of victory over evil dons a leopard skin. (b) is strongly shamanic, and marks the five principal forms under which shamanism has made inroads into Africa in recent millennia: bard, saints, Nilotic earth priests, kings, and ecstatic healers. However, (a), which I see as the core of this Complex, is very ancient, going back to a fascination for spottedness and for leopard as 'spotted animal' which encompassed the entire Old and New World, and — with the colour triad red/white/black — was probably part of the Out-of-Africa package. As the ultimate trickster, the leopard has combined the qualities of predator with that of distributor of food, in the sense that, long before the emergence of Anatomically Modern Human, early man may have competed with other scavengers for portions of the predator's kill
18. Honey and honey-beer	References to honey are rare in the data set and difficult to classify. They form a loose end. Occasional collecting of wild honey is considered a constant from the Lower Palaeolithic, while sophisticated techniques and equipment are depicted from the Mesolithic. There is a link with the kingship, in Egypt, Madagascar (with South East Asian connotations), and South Central Africa. The bee represents both heaven, and descends along the celestial axis – and the underworld (where she may live, in addition to trees). The symbolic elaboration is therefore largely 2, but in fact this Complex is not separately needed
19. The cosmogonic virgin and her son/ lover	An analysis of cosmogony based on rational causal analysis and sense of time – such as one would expect in a society with established social inequality, charters justifying privilege, and basic practical biological knowledge applied and sustained in agriculture and animal husbandry (the cosmogonic virgin appears as celestial cow). In addition to its great dominance in the sub-Saharan African mythical data set, his Complex constitutes the dominant theme of religion in the Ancient Near East including Ancient Egypt, and the implied theme in much Graeco-Roman and Northern European mythology
20. Contradictory messengers bring death	The most popular theme in the data set. Links with 10, and with the trickster elements in 5 and 17, yet so effectively incorporated into 2 (the connection between heaven and earth after their separation) that no special Complex seems required.

Table 3. Tracing the relation between Narrative Complexes, in an attempt to further reduce their number

Moreover, tracing the interrelationship of the Narrative Complexes will also help us to situate them in time and place, once we have developed an explicit, systematic methodology to do so. This is the subject of the next section.

6. SITUATING EACH OF THE REMAINING NARRATIVE COMPLEXES IN TIME AND PLACE

6.1. Preliminary remark: The rate of cultural change

The kind of long-range intercontinental connections and continuities we are looking for in the present argument are only conceivable under at least one condition: that items of culture may remain relatively stable and unchanged across centuries, even millennia. This is not the experience of many people now living, who have seen their world change almost beyond recognition during their lifetime. Of course, both adaptability to a changing environment and to new influences, on the one hand, and a Gestalt-like propensity to continuity, are essential features of any cultural patterning. If we implicitly claim cultural continuities across millennia, even across the time-span separating us today from the 'Out-of-Africa'migration, a theory of cultural retention is required, that provides a radical explanation for such retention. Such a theory is not currently available at any level of sophistication and persuasiveness. At a weaker and more intuitive level, one might think of such retention as the (often implicit, and non-verbal) ritual and mythical enshrinement of ancient cultural patterning may bring about; and even consider such a formulation an operational redefinition of Jung's otherwise untestable idea of the collective subconscious.

6.2. A methodology of dating of the cosmogonic mythical material as the central problem in the present argument

Collectively owned and managed myths, much like the personal narratives of psychic trauma that appear to be the individual counterparts of such myths, do not carry *date tags* – they are outside history, *in so far as the conscious reflection of the owners of these myths is concerned*. Whenever myth appears, it represents an all-overwhelming mythical present, that imposes its illuminating but often tyrannical order upon everything else. Yet myths were, unmistakably, created in history, and the central problem of my argument is to try and assign some kind of relative date to the various mythemes, and complexes of mythemes, to be identified in the African mythical material.

In the earlier steps in the present argument I have engaged in a straightforward and highly predictable form of data reduction: from a raw data set of latter-day African mythical material, to over two hundred specific mythemes; and from the latter, to about a score Narrative Complexes. The real advance of my argument does not lie there, but in the next step: seeking to situate each Narrative Complex in space and time, as the decisive step towards an argument provisionally identifying the likely

composition of the (postulated) original Out-of-Africa mythical package, and allowing all Narrative Complexes as distinguished to be subsumed as part of one sustained history of humankind's earliest discourse, first Out of Africa, and then back in a feedback return migration, much more recently. Most scholars today would reject such an argument off-hand as far too speculative and as wishful thinking. Taxing the scholarly imagination and credulity almost to breaking point, such an argument can only pretend to have left behind the phase of science fiction, or of New Age pseudo-scholarship, if it can be based on a explicit, richly argued and, in combination and mutual reinforcement, rather convincing set of explicit methodological prescriptions for dating. This is what the present section intends to offer, as the methodological and scientific backbone of my argument.

My surprising point of departure in this decisive methodological section is that we have actually far more clues to date mythical material from the remotest past, than is generally realised — so that a triangulation between several such dating methods applied to the same mytheme or Narrative Complex, is likely to yield results that, although fundamentally provisional, may yet claim considerable plausibility.

Meanwhile the present methodological analysis reflects my decades experience with pre- and protohistorical data of ideological content. Some of the dating method I am using here, was first developed by me a decade ago [add refs] in the attempt to identify theoretically a possible context for the emergence of manual board-games, by analysing the hunting and gathering, or agricultural, or pastoral imagery detectable in the layout of these gaming boards and in the rules of these games. Others have been developed when I analysed, mainly on the basis of oral sources, the history of shrines and segmentary organisation in North Africa, and the history of precolonial state formation in western central Zambia, from the middle of the second millennium CE, as well as the history of magic in Ancient Mesopotamia from the fourth to the first millennium BCE. [add refs]

6.3. Enumerating the various dating clues at our disposal

6.3.1. Astronomical dating²⁹

If in a much a clear-cut astronomical meaning can be detected, this sometimes offers additional dating potential:

- 1. Some phenomena in the heavens are so spectacular (a supernova, a giant meteorite, etc.) that they may have left traces in myths. However, since these are unique instead of repetitive astronomical phenomena, we would hardly be able to trace them in myth and use them for dating.
- 2. Some formations in the heavens are relatively inconstant, and cannot be held to have outlasted, for instance, the relatively long period elapsed since the reconstructed date of the Out-of-Africa migration (140,000 BP). Most constellations and asterisms we take for granted today, including such conspicuous ones like Ursa Major, fall under this heading, because the individual stars' proper motion tend to play havoc with constellations lines for anything over 50,000 years. Precession at a 25,800 years cycle brings another star to be Pole star every few thousand years.

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²⁹ The astronomical implications of African mythical material has received some attention. Here pride of place is taken by the Dogon, who were reported by Griaule & Dieterlen, 1965) to have knowledge of Sirius being a composite star, and to know not only of Sirius B (which the great mathematician Bessel proved to exist in the mid-19th c. CE), but even of another hitherto hypothetical and highly disputed companion Sirius C; cf. Temple 1976; Guman 1989; Adams 1983; van Beek, 1992; Howe 1999. The astronomical merits of the Sirius case can be determined by reference to: Solstation.com 2005; Duchner and Brown 2000; Schroeder et al. 2000; it turns out that any Sirius C has not yet been found despite sophisticated searches, but that the possibility of its existence is still considerable. The role of the celestial axis around which circumpolar stars can be seen, with the naked eye, to make their diurnal rotation, is often discussed in mythological contexts, African, prehistoric, and otherwise (cf. Rappenglueck 1999; Jueneman 1988, Thompson, Gary D., 2001/2004, and with emphasis on Africa but with comparison of other continents von Sicard 1968-69, who sees the widespread Luwe [/Lion] mythical character as asn evocation of the celestial pole (cf. van Binsbergen forthcoming (e). An interesting compendium of African astronomical mythology is von Sicard 1966. Another controversial case is the claim that African Pygmies would have knowledge of 'the' ten moons of Saturn - a moot point in view of the fact that, in North Atlantic science, Saturnwas only conceived to have moons from the 17th c. CE onwards, and was considered to have ten and no more than ten moons from 1898 to 1966 when the 11th moon was discovered – the present number of moons is undetermined by at least twenty; cf. Soderblom et al. 1982; Solarviews n.d.; Thomas et al. 1983.

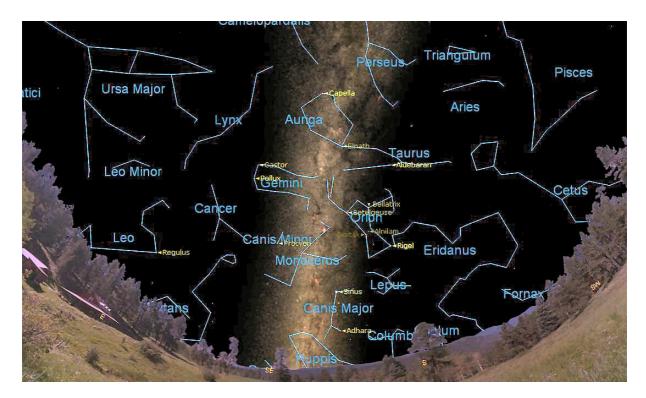


Figure 7a: constellations in 2005 CE

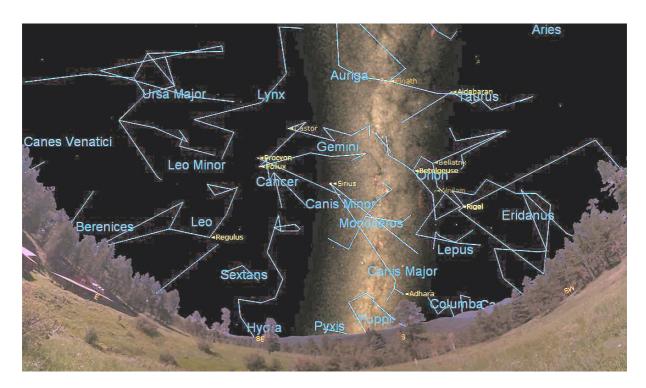


Figure 7b: Constellations 100,000 BP

3. Some formations in the heavens, however, are relatively stable even over such considerable stretches of time. For instance, the diurnal rotation of the Earth

and hence the apparent rising and setting of the Sun, or the phases of the Moon, or the behaviour of Venus as Morning-star and Evening-star, have scarcely changed since the Out-of-Africa migration – even though precession effects the details of what these phenomena look like from a specific place on earth at a specific moment of time. Likewise, the remarkable line of three stars we now name as Orion's Belt, has remained virtually unchanged for over 100,000 years; so have the apparent relative positions of the brightest stars of the stellar cluster we call the Pleiades, although the pattern of their fainter stars has changed considerably. Due to their very constancy, such relatively constant phenomena cannot be used for dating in their own right, but at least they do not rule out the possibility that mythical material in which reference to these phenomena is made, could be 100,000 years old, or older, and could have been part of the Out-of-Africa package.

- 4. Some astronomical phenomena are conspicuous on a particular point on Earth, at a particular moment of time, but are no longer so conspicuous, or can no longer be observed at all, at other parts of the globe (where e.g. northern circumpolar stars can no longer be observed) and at other periods (when e.g. precession has substantially affected the culmination points of stars). This state of affairs may contain clues for situating, in space and time, myths relating to such phenomena. For instance, when in Narrative Complex 2 the celestial axis plays a major role and is the basis of a richly variegated imagery (pole, cord, thread, spider's thread and nest, tower, tree, one-legged divine character, etc.), we surmise for this Narrative Complex an origin outside the tropics, so that it can hardly have been part of the Out-of-Africa package.
- 5. Some mythical conceptions of the heavens are simply astronomically impossible and can only be considered the eroded, misinterpreted fragments of earlier, sounder astronomy transferred to a substantially later period, or a substantially different part of the globe – which may allow for a different, negative form of situating in space and time. A case in point is the transfer of the notion of the celestial axis, which is obvious in any naked-eye astronomy outside the tropics, to tropical zones, where the current polar star can no longer be seen, circumpolar stars do set, and therefore the celestial axis is far less obvious – so that there is room for secondary imagery (e.g. in terms of the one-legged divine character) which retains the underlying vertical model but without overt astronomical reference any more. In such cases one may see, as in our African mythological data set, the celestial pole topped by planets such as Venus or Jupiter (which is astronomically nonsensical considering these planets' vagrant course along the skies), or the Milky Way (which is equally inappropriate because the Milky Way is just as much subject to diurnal rotation as individual dixed stars). By the same token, the astronomically nonsensical notion found in South Central Africa, of planets, especially Venus and Jupiter, crowning the celestial axis, indicates a similar displacement of astronomical knowledge from northern zones, and provides clues for identification in space and time – the distorting must be considerably more recent than the original insight in diurnal celestial rotation.

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³⁰ Exact positions calculated with Starry Night Pro version 5.0, taking proper motion into account.

6. Finally, some astronomical claims, when appearing in mythical trappings, so precisely reflect the state of North Atlantic scientific astronomy at a specific period of time, that that in itself suffices to date the moment when the myth was recorded, and distorted. For instance, before Galilei pointed the newly invented telescope at Jupiter in the beginning of the 17th c. CE, the idea that planets could have moons had scarcely been entertained. It was Huijgens, half a century after Galilei, who first discovered moons for Saturn. That planet's ninth moon of Saturn was discovered in 1898; the tenth moon (Janus) in 1966, and today the number of Saturn's moons is undetermined but certainly over twenty – so this gives a precise time slot of North Atlantic borrowing for any cosmeme attributed to Central African Pygmies and (as has been the case) claiming nine months for Saturn.³¹ In the same bracket falls Griaule's spectacular claim that the West African Dogon know of the composite nature of Sirius ³²

6.3.2. Population genetics as a clue to dating

Population genetics offers further clues to dating. If we find (although this is by no means uncontested)³³ that present-day Khoi-San speakers can be traced back,

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³¹ So it looks as if modern North Atlantic astronomic knowledge seeped through to Africa in this case. But how did this happen? Alternatively, early missionaries / ethnographers could simply have misunderstood their Pygmy spokespersons. Perhaps the latter really were speaking of a dragon with nine heads which could have been an old mythical theme among the Pygmies, just like it is in Eurasian mythologies; this conception could then subsequently have been equated with Saturn by the missionaries /ethnographers, on the basis of a projection of teh latter's own recent astronomical knowledge. This must be an ubiquitous problem in this kind of research: that mythographers simply misunderstand, and substitute, whatever corresponds with their own myths at home. Meanwhile it is puzzling, and suggests an underlying historic affinity, that Saturn does have dragon-like associations also in the various Eurasian traditions, scale skin, where it is called the 'sun of darkness', the 'night sun', etc.

³² Much ink has been spilt on the question of the fabulous astronomical knowledge which Griaule claims to have detected in the creation myths of the Dogon. The Assyriologist Temple (1976) presents an interesting case for the possibility that part of this knowledge simply derives from the Ancient Near East, mediated there via the Garamantes whose migration from Libya to West Africa is quite plausible. and suggested by other authorities. Temple's disqualifying main point however it that he attributed the Dogon's extraordinary astronomic knowledge to extraterrestrial aliens' communication with the Dogon, or with those (presumably the Sumerians) from whom the Dogon could have derived it. That knowledge claims that Sirius is a composite star (consisting of Sirius A and Sirius B, a fact only ascertained by the great North Atlantic mathematician and astronomer Bessel in the 19th c. CE), while the Dogon myth moreover seem to indicate the existence of a Sirius C. In accordance with Dogon myth, Sirius B is very small with an incredible concentration of matter (an idea only conceivable on the basis of astrophysics developed in the course of the 20th century CE), while orbital disturbances still make it possible that Sirius C, of a less exception stellar type, does exist, although serious attempts to find it (even with the use of the Hubble space telescope) has so far failed (Solstation n.d.; Duchner and Brown 2000, Schroeder c.s. 2000). However, it is an generally accepted epistemological principle that non-existence can never be proven empirically. This may also apply to the finding of my friend and colleague Walter van Beek (1991), whose research among the Dogon in the 1980s could not trace any evidence of the extensive astronomical knowledge described by Griaule. However, the most likely explanation is that Griaule's account was contaminated by his own astronomic knowledge or (Free Dictionary 2005) by the knowledge of European astronomers observing a transit of Venus (which must then have been in the 1880s – such transits occur less than once in a century). [repetitious]

genetically, to a West-Asian background c. 10,000 BCE, then there is little point in singling out Khoi-San speakers, among present-day inhabitants of sub-Saharan Africa, as the hypothetical keepers *par excellence* of much older, pre- Out-of-Africa mythical material of before 150,000 BP; on the other hand such a genetical finding does allow us to attach more than superficial importance to such parallels as we may find between mythical materials from West Asia (including the Ancient Near East and the Biblical world) and Khoi-San speakers. By the same token, if there is genetic evidence to suggest that the separation between present-day Pygmy groups and their non-Pygmy neighbours dates back to 10,000-20,000 BP maximum, there is again no reason to expect pre-Out-of-Africa mythical materials among Pygmies any more than among other populations inhabiting sub-Saharan Africa in recent times.³⁴

6.3.3. Comparative historical linguistics as a clue to dating

Another dating argument may be derived from linguistics. With the exception of Khoi-San speakers in the extreme south of the continent, and a few (controversial) Khoi-San-oid groups in East Africa, the whole of sub-Saharan Africa south of (roughly) the line Dakar–Lamu (Senegal/northern Kenyan Indian Ocean coast) speaks languages belonging to one family, Niger-Congo, of which the Bantu subfamily (from the Atlantic Ocean i.e. Bight of Benin, to Lamu) is the most conspicuous and homogeneous. On the basis of their glottochronological and other comparative reconstructions, African linguists tend to claim that Bantu emerged near Lake Chad 8,000 BCE, while Bantu expansion east and south only gained momentum from 3,000 BCE. This creates a relatively recent linguistic homogeneity for half of the African continent, on the basis of which cultural and mythical parallels within the Bantuspeaking (and by extension, but with more reservations, within the Niger-Congo area at large) may be interpreted largely on the basis of shared origins. Thus if authorities agree that Bantu expanded from the Lake Chad region from 8000 BCE onwards, with marked intensity from 3000 BCE, this helps us date the 'Separation of Heaven and Earth / What is in Heaven' Complex 2-3, which in Africa is largely coterminous with the spread of the Bantu-speaking family, although its distribution in the Old World is much wider and encompasses the early literate civilisations of West, South and East Asia, as well as – secondarily, in much derived fashion – ancient Europe.

It stands to reason that the succession of linguistic families as (soon to be) reconstructed by recent long-range research goes hand in hand with the succession of mythological Narrative Complexes as reconstructed in the present argument, and that

that, on the contrary, they are an ancient mix between Asian and African genes, and hence more related to the rest of the world than most Africans, – within an overall out-of-Africa model, which postulates that no earlier than 150,000 BP Anatomically Modern Human, having emerged in Africa, began to spread to other continents, primarily via South Asia.³⁴ Thus, the following mythemes collected among Pygmies and in early studies considered to be typical Pygmy themes, are in fact widely distributed among non-Pygmy populations in Africa:

- The Milky way is the Supreme Beings path to the sun in order to renew himself
- The rainbow mediates between the supreme sky god and the people
- Rainbow and thunder are enemies, the rainbow is victorious

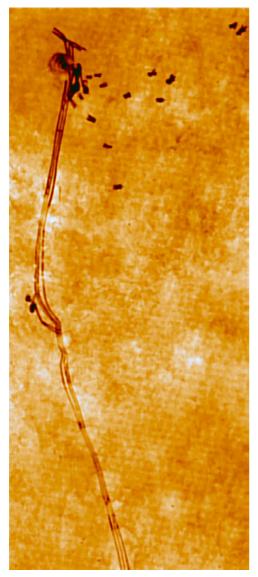
Other such mythemes could easily be added.

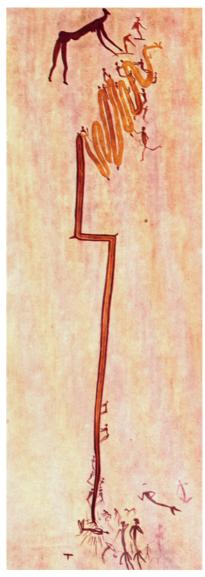
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ultimately the factors for such success lie in the political economy of production advantages creating surplus and population pressure.

6.3.4. Archaeology as a clue to dating

Another dating method is archaeological, where we seek to match more or less dated archaeological items of iconic representation, with the mythemes and Narrative Complexes featuring in our myth analysis. Outside the present argument, I have used that archaeological approach extensively in my recent work, to trace the ramifications, throughout the Old and the New World, of the Narrative Complex of speckledness/ the leopard [add refs]; and that of the white cosmogonic aquatic bird. [add refs] As far as the sub-Saharan African material is concerned, there is much evidence of the Narrative Complex 2-3 ('Separation of Heaven and Earth – and What is in Heaven') in rock art throughout Africa, as well as in the European Upper Palaeolithic, especially of the Franco-Cantabrian region. Provided we manage to link a particular representation unequivocally to a particular Narrative Complex (the captions to the figures below show that this is a weak spot: what is unmistakably mythical to one modern analyst strikes another modern analyst as practical scenes of everyday life or as meaningless) we can then use such archaeological evidence to indicate when a particular Narrative Complex is first attested. However, much rock art is difficult to date, and reliance on mere stylistic criteria tends to introduce cyclical reasoning in the present context.





LEFT: rock painting, Cueva de la Araña, Mesolithic Spain, style, microliths and continuous African distribution and styles of rock art suggest historical connection

RIGHT: A rock painting from Marondera (Marandellas), Zimbabwe, showing a vertical line dominating the entire figure, thus looking rather similar to the Cueva de la Arana painting.

This image may be explained (Lommel 1976: 149) as a rain ceremony, where a virgin princess is buried alive as sacrifice at the foot of a tree (the vertical line however looks very little like a tree – but it is certainly some kind of connection between heaven and earth), people ascending, and a large female goddess, with smaller human figures, up in the sky, as well as a heavily zigzagged being which is probably the Rainbow Serpent – its position at the top of the vertical suggests that it is obstructing Rain. Such an explanation finds much support in recorded local myths and practices prevailing up to the middle of the 20th c. CE.

However, considering the age of this painting, estimated (Garlake 1995) at a few thousand years at least, this reading may be totally inappropriate, the pictorial equivalent of a popular etymology. The same figure appears (black and white, and schematicised) in Garlake 1995: 131, Fig. 157, with discussion p. 130f), where the interpretation is exclusively in terms of trance of the reclining bottom figure – ladder and snake are relegated to mere representations of the trance state. Much as such an emphasis on altered states of consciousness is favoured in current Southern African rock art studies (esp. the work of Lewis-Williams), any one-factor explanation must be distrusted as one-sided, especially if local practices and myths (which after all have been a great inspiration to Lewis-Williams) suggest additional perspectives, as above. Even if the trance interpretation were in principle

correct in the sense that it tallies with the participants' own conscious and explicit interpretation (of which we cannot be sure, considering the age of these paintings and their illiterate cultural environment) the images of trance would still follow a particular cosmology, e.g. one in terms of ascent to heaven or descent into the underworld, and of the existence of anthropomorphic and snakelike beings in heaven.³⁵

Figure 8. African rock art as attestation of Narrative Complexes: 2-3: Separation of Heaven and Earth, and their subsequent Connecti



A rock painting near Harare, Zimbabwe (Frobenius 1931, Fig. 31, p. 315), which von Sicard (1966) interprets, on the basis of erudition, in terms of a Bantu-speakers' astronomical myth: the hero (marked by crescents in his hair) and two companions cross Ntande's bridge [equated with the celestial axis]; the eared elongated creature in the upper right-hand quadrant is interpreted as the Milky Way, *gwara raKuruvi ['Luwe's Path']*. Such a reading assumes that realistic (river crossing) and symbolic elements (Milky Way as snake) mix freely in this kind of representation. It also assumes that, across more than 1000 km, the Luba (Congo) spider-like character Ntande, with his bridge may be invoked to explain a

³⁵ In this connection it is interesting to note the equation of the eland's striped pattern with lightning and with the lightning bird, as is explicitly stated in one myth recorded in the Drakensberg region, South Africa. Contrary to my expectations, it is the eland (striped, herbivorous) rather than the leopard (speckled, predatory) which dominates Southern African rock art, which researchers usually see in continuity with Khoi-San speaking San cultures in modern times (cf. Dowson & Lewis-Williams 1994; Lewis-Williams & Dowson 1988, 89; Lewis-Williams, & Biesele 1978; Lewis-Williams 1977 (1981), 1980, 1985, 1987, 1997; Parkington 2003; Vinnicombe 1975, 1976). There are indications in latter-day Khoisan myth and rites that in many respects the eland, as an acceptable conscious symbol is a transformation of the leopard which figures as unspeakable and unthinkable yet features in implicit imagery and bodily expression e.g. dance. Cf. van Binsbergen forthcoming (e) [leopard]

rock painting in Zimbabwe. Considering the emphasis, today, on the trance interpretation of Southern African rock art (cf. Lewis Williams), we may drop the idea of a river crossing and interpret the figures' progress, on all fours, along 'Ntande's bridge' as standard shamanic progress along the celestial axis.

Figure 9. African rock art as attestation of Narrative Complexes (2)

6.3.5. Modes of production as a clue to dating

Relative dating of narrative themes is often possible on the basis of the idea, that in human history a number of modes of production have appeared in such a way that an earlier mode (such as hunting and collecting) may be retained in a later phase when other modes (e.g. food production through agriculture and animal husbandry; kingship as a mode of exploitation based on central organisation, tributary extraction and raiding) are available, but that a later mode cannot obtain at a particularly early historical moment.

The modes of production perspective helps us to understand some of the material conditions under which the concrete, specific imagery of certain mythemes may be understood in relation to the specific productive circumstances of the people invention and managing these mythemes. The same perspective may also help to explain why certain mythemes do not disappear although they belong to an older mode of production, that was largely supplanted by a later one, as dominant mode safeguarding the reproduction of a specific social formation. Modes of production typically do not completely disappear - they become linked ('articulated') to other, later, more advanced and more dominant ones, becoming subservient to the latter, but derive from such encapsulated subservience an extended lease of life, also for the imagery that forms part of the ideological repertoire of a particular mode of production. Thus it does not run counter to our theory that the trickster motif is found, both in Africa, Australia, New Guinea, but also, and with considerable prominence, in the New World: the hunting and gathering mode of production to which the trickster idea typically belongs, as an image of the vicissitudes of production in that mode, was also that of the Asians venturing into the New World, and has not been completed eclipsed when some of these New World immigrants invented agriculture – as a henceforth dominant mode of production to which hunting and gathering, until quite recently, remained articulated as an appendix.

Modes of production analysis yields dating clues based on an anthropological examination of mythical contents. Myths invoking kingship may of course be regurgitating much older pre-kingship themes in a kingship idiom, but to the extent to which they do invoke kingship, they must belong to a relatively recent phase in the history of Anatomically Modern Humans, because kingship depends on the accumulation and circulation of more or less durable surplus, which normally presupposes food production through agriculture or pastoralism. The same kind of argument may be extended to other modes of production, for whose occurrence and dating archaeology often provided the empirical evidence.

Sometimes the mythical material contains specific clues to be interpreted in terms of modes of production. E.g. when it is said, in the Bushong (Vansina 195...) cosmogonic myth, that after the appearance of plants, humans and animals came into being, as well as

[&]quot;...the basic implements are razor, healing tools, and meteorites",

then we may believe to be in the presence of

- circumcision (until well into recorded history with stone tools),
- leechcraft (which in view of humankind's manifest survival throughout the several million years of its history may be deemed to have been of all ages, but whose specific growth into a specialisation may well be argued to be mark the emergence of shamanism, for which above a date of 15,000 BCE has been suggested), and
- early metallurgy (for which meteorite iron was used), i.e. the transition between the Neolithic (and the Early Iron Age.

6.3.6. Distribution: A Narrative Complex's distribution as a clue to dating

In the opening pages of this study, we have already encountered an elaborate example of distribution as a clue to dating: if male genital mutilation is considered to have diffused from South Central Asia then any date would apply and the Upper Palaeolithic would be a likely guess; but once we have realised that the distribution pattern fits that of the Out-of-Africa hypothesis almost perfectly, then a dating to before 140,000 is almost inevitable.

From the Out-of-Africa perspective, we may expect a Narrative Complex's distribution to be in principle a clue to its dating. For instance, if we find a particular complex to be found in Africa, New Guinea and Australia, and nowhere else, we have reason to consider it a candidate for inclusion in the original Out-of-Africa package.

One example of such dating is studied in Figure XXX, where I present the African distribution of two mythemes which partly overlap with the Narrative Complexes highlighted in the present study: the mythemes of the Tower and of the Flood. That both mythemes are by no means confined to Africa is clear to any reader of the Bible or of the Qur'an.

The parallels between the biblical and the sub-Saharan African flood myths can be astonishing, for instance in the following myth from the Masai pastoralists in East Africa:

Tumbainot and his wife Naipande had three sons, Oshomo, Bartimaro and Barmao. In those days the world was thickly peopled, but men were not good ... But at last, one unlucky day, a certain man named Nambija knocked another man named Suage on the head. Then God commanded Tumbainot to build an ark of wood with his family and some animals. When they were all safely aboard, (...) God caused it to rain so heavily and so long that a great flood took place, and all men and beasts were drowned, except those which were in the ark; for the ark floated on the face of the waters. Tumbainot let a dove and a vulture fly out. He fastened an arrow to the tail-feathers of the vulture. As he stepped out of the ark, Tumbainot saw no less than four rainbows, one in each of the four quarters of the sky, and he took them as a sign that the wrath of God was over.

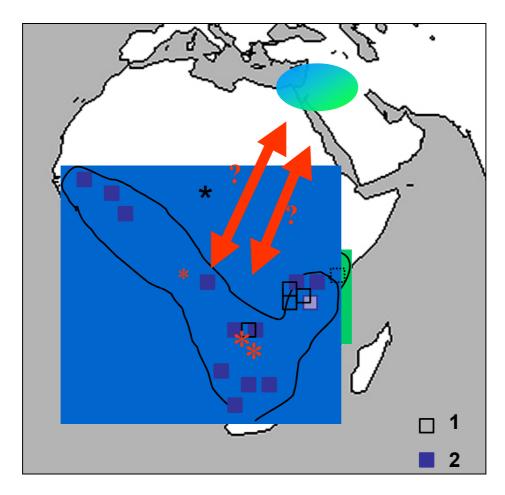


Figure 10. An example of distributional analysis as a clue to dating a Narrative Complex: (1) *Tower myths* and (2) *Flood myth ('Primal Waters' Narrative Complex)* in *Africa in historical times:* not absent (*pace* Witzel), but the restricted distributions suggest recent introduction related to return migration into Africa ³⁶

- 1. Tower
- 2. Flood

symbol with broken lines as borders: 1 but doubtful; symbol with crosshatched fill: 2 but doubtful

The two themes happen to combine in the Bible (Gen. 6-11) although not in Ancient Mesopotamia (the Flood story of the Gilgamesh epic). To judge by their distribution they may be independent in Africa, although overlap occurs in Zambia and East Africa.

• The *Tower* mytheme is also known from South Asia, notably among Austro-Asiatic speakers. In Africa, it largely follows the lake belt towards the interior, and coincides with the distribution of sacred kingship, to which Austro-Asiatic influences may have contributed (cf. the peopling of Madagascar from Indonesia via Sri Lanka). There is a very convincing argument why this mytheme may be considered to be extra-African in origin, and specifically South Asian. In South Central Africa, especially in Zambia, it is elaborated in the story of the king who built a tower into heaven from forked branches; the name of that king is given as *Kapesh kamununga mpanda* 'Kapesh joiner of forked branches'. The last two words are straigthforward Bantu, but the name Kapesh has no Bantu etymology. It could derive from

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³⁶ [add sources, including Frobenius 193q1: Introduction and pp. 166f, 169; van Binsbergen 1992; van der Sluijs n.d., etc/]

Afro-Asiatic, notably Hebrew, qpš, used for a capering movement as of a fleeing deer, with the remote possibility of containing a reference to the hobbling gait of the divine king for whom the forced displacement of the hip joint was often part of the initiation (Graves 1948, 1966). However, much more probable is an Indo-Aryan etymology *gabhasti-, 'forked carriage pole, hand' (de Vries 1958, s.v. 'gaffel'). Both phonologically and semantically the fit is perfect, albeit that the horseless environment of the African savannah south of the rain forest could not accommodate the reference to the wheeled vehicle; however, it does retain the implied reference to the celestial pole as one of the principal connections between heaven and earth, along with the tower. I take the distribution area of the Tower theme in Figure XXX as an indication of massive cultural influence from South Asia (and, via South Asia, from South East Asia), one of whose items was kingship with an elaborate court cultrure in which musical instruments and orchestras played a major role. At the courts of MweneKahare and Mwene Mutondo, two major kings of the Nkoya people in Zambia, who have become my close relatives since I started research in their area in 1972, many royals have names straight out of the Mahabharata, such as S(hi)kanda and Mangala. Karst claims (but without giving sources) that under the name Kale, Gypsy greoups have penetrated Africa from India. Indeed, Gypsy groups have been studied in Sudan (Streck | year |), Kale ('Black') as a Gypsy name is widespread in Eastern Europe, and Kale is indeed the alternative name of the Kahare royal title (Smith & Dale 1920).

- The *Flood* mytheme, by contrast, has a very wide distribution globally, and probably echoes (Anati 1999) the historical dramatic rising (by 200 m) of the ocean level in the beginning of the Holocene (10,000 BP). In Africa, this mytheme seems to follow the coast rather than the lakes. This could be because any actual rising of the ocean level would be felt on the coast and not on the interior. On the other hand, the distribution of the Flood mytheme brings out a pattern of continuity similar to that apparent in the distribution of geomantic divination, divination bowls, and perhaps the name of Mbedzi (*) as a mythical ancestor/ divine saviour which suggests that this mytheme may not have originated in Africa but spread there from elsewhere, probably from (South West) Asia, and mainly by sea. Meanwhile Bantu linguistic elements in the Biblical world (see my ch. 6), including the name Cainan (in the Septuaginth, Talmud and Islamic tradition, cf. proto-Bantu *-káán-; also cf. Canaan) for Noah's son who refused to follow his father into the Ark, suggest
 - an African *origin* for the Flood complex
 - a major African *influence* on the Flood complex, or
 - (the Trombetti scenario, which is my opinion is the most plausible:) *Africa-bound diffusion* of a Flood complex from some hypothetical original pre-Bantu region in West or South Asia. However, proto-Bantu is now generally considered to have arisen near Lake Chad, 8,000 BCE (*).

Inside Africa, the distributional factor is less straightforward. Given the extreme complexity and heterogeneity of African socio-cultural formations and their long history, it is not realistic to expect the traces of the most ancient mythemes, of the pre-'Out-of-Africa' mythical repertoire, and of subsequent re-immigration into Africa from Eurasia, to be conspicuously concentrated in any specific part of the continent – throughout the continent, such traces may be expected to be overlaid, and combined, with later mythical innovations and inventions. Perhaps not all parts of sub-Saharan Africa show this phenomenon of combination of mythemes to the same extent. It is reasonable to expect that the part of Africa farthest removed from Eurasia, i.e. West and South West Africa, would have least influences of Eurasian re-immigration. In fact, there are extensive indications to this effect:

- 1. Frobenius' inroads of shamanism apparently eclipsing the African tradition of scultural representation;
- 2. van Binsbergen's inroads of leopard-skin associated symbolic specialism, notably (from North West, via North and East, to South East Africa) bards, saints, mediating earth priests, kings and mediums)

These inroads date from relatively recent periods (1st mill BCE and later; mainly later), and although that tallies with recognised historical or prehistorical movements into Africa from South and South East Asia (Indonesia, India, Sri Lanka, Iran, Arabian peninsula), the Eurasian re-immigration must have started much earlier: for the ancestors of today's Khoi-San speakers a West Asian environment has been demonstrated for c. 10,000 BC. Khoi-San movement, pastoralist movement across the African continent southward (which may have overlapped with Khoi-San expansion southward and eastward),³⁷ and the Niger-Congo / Bantu migration from an epicentre near Lake Chad from 8,000 BCE onward (but mainly from rather more recent millennia) – these movements created such percolation throughout the continent that no neat localisation of pre-Out-of-Africa mythemes, or of re-immigration mythemes, can be expected. Instead, fragments of such mythemes may be expected to be stacked with others mythemes in kaleidoscopic variety all over the continent. If Cavalli-Sforza is right (what seems to be confirmed by very recent linguistic insights) the case of the Khoi-San speakers has taught us (also cf. Wilmsen 1989) that archaic and peripheral life styles by no means indicate a primordial and autochthonous genetic background.

Perhaps the Central Pygmies are a more distinctive group: the genetic separation of the Biaka Pygmies from their non-Pygmy neighbours is estimated, by Cavalli-Sforza (1986 [check]), at 10,000 to 20,000 and they are said (Bodmer & Cavalli-Sforza 1976) to qualify as 'proto-African' groups, i.e. populations have have been the least altered by more recent events. This would make it at least thinkable that among Pygmies (especially in view of their relative isolation in the dense rain forest in recent centuries) yet mythical material and worldviews have survived of very great antiquity in the African continent. However, this is a point made unpopular by Schmidt's and Schebesta's writings from an ethnocentric, Roman Catholic point of view – they used the Pygmies as evidence for their claim of a primal monotheism. When we learn from ethnographers that the Pygmies call Saturn 'the nine-mooned star' our suspicions are raised as to the pristine, authentic nature of Pygmy traditions: it is only in a welldefined, recent time slot that Saturn was held, by North Atlantic professional astronomers, to have exactly nine moons: between 1898 when the ninth moon was discovered, and 1966 when the tenth was - meanwhile the number of moons is accepted to be undetermined but certainly larger than twenty.³⁸

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³⁷ In this case like in so many others, myths may be beread as tell-tale index fossils of more comprehensive processes of cultural contact and diffusion. Nambija and Suage in the Masai myth just cited are structually equivalent to Cain and Abel in the Genesis account, although in the biblical context they are nearly a dozen generation removed from the flood. Among Khoi-San speaking pastoralists of Southern Africa the same theme crops us in the form of the two predator sons of Cagn (cf. Cain?), who kill their antilope-shaped sister. The suggestions is indeed as if pastoralists took the myth with them to Southern Africa, on their way South from the Extended Fertile Crescent. This does not necessarily mean a West Asian origin for the myth, since cattle was also domesticated in the African part of that vast Neolithic region. However, these relatively recent, Neolithic/pastoralist connections should not obscure the fact that among Khoi-San mythology as recorded in historic times also apparently very old, presumably (in terms of my reconstruction) pre-'Out-of-Africa' themes may be found. [giveexamples]. It is not clear why this should be so and how such extremely ancient material found its way to these, presumably, relatively recent migrants from West Asia...

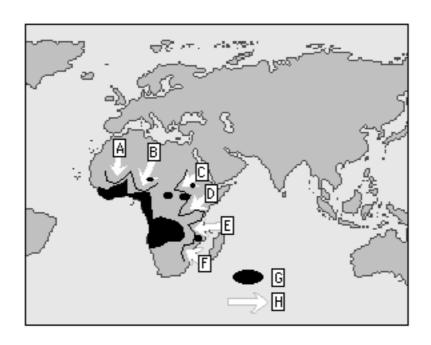
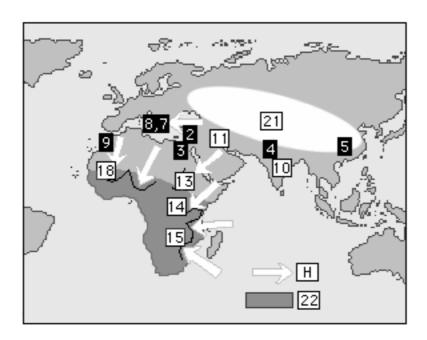


Figure 11. West Africa as relatively pristine: Map rendering Frobenius' ideas concerning the inroads of named shamanistic cults (white arrows) and the main regions of representative art in (later second millennium) Africa



igure 12. The Asian cradle of shamanism: linking Frobenius' ideas to major historical attestations of leopard skin symbolism in our analysis

My next Figure brings this out in more detail:

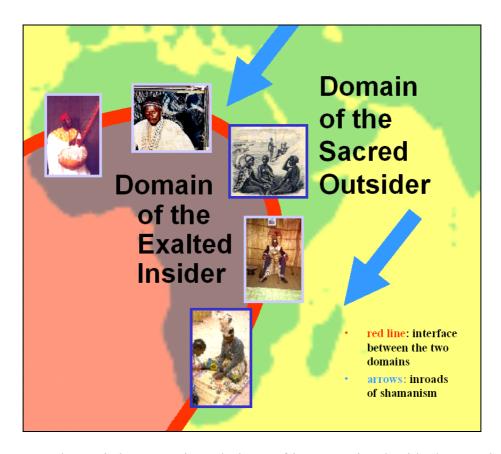


Figure 13. Shamanistic recent inroads into Africa, associated with the wearing of leopard skins: from north-west to south-east (top lefthand side to bottom righthand side) this refers the bard, the marabout, the Nilotic leopard-skin chief, the king, and the *sangoma* diviner priest.

Frobenius' westerly, presumably more pristine part of Africa overlaps but is certainly not limited to the distribution area of Pygmies, and the criteria Frobenius mentions (representative sculptural arts, and the absence of spirit possession or other

religious expression associated with shamanism) are not at all characteristic of Pygmies; on the other hand, the fact that the 'Frobenius' area forms part of the widespread distribution area of the Niger-Congo linguistic family (whose age specialists tend to estimate at less than 10,000 years) shows that more recent, and more widespread, traits have greatly overlaid, even in the relatively 'pristine' zone, whatever pre-Out-of-Africa traits may be surviving inside Africa.

Clearly it will be immensely difficult to identify pre-Out-of-Africa mythemes in Africa today, merely on the basis of an internal comparison of the African data set alone. We will need to find more effective clues to dating.

One such a clue, and a powerful one, may still be found in an analysis of distribution patterns, notably in *triangulation of African mythical materials with New Guinean and Australian mythical materials*. Although we cannot exclude the possibility of recent diffusion into New Guinea and aboriginal Australia from other parts of the Old World (or even the New World, perhaps),³⁹ yet, if a trait occurs in Africa, New Guinea and Australia, we may take this as a suggestion that it belonged to the Out-of-Africa package, especially in the following conditions are also met:

- a. that trait is not conspicuous in Eurasia
- b. we can produce an additional argument, not based on distribution but on formal or content criteria, as to why that trait should be particularly old.

Another way to identify any mythical components of the Out-of-Africa package, if any, is by reasoning backwards: we try to identify such mythemes (or, preferably, at a higher level of agregation, such Narrative Complexes) as can be argued to be associated with Eurasian return migration back into Africa, and when we substract those recently introduced Narrative Complexes from the entire set of Narrative Complexes present in a latterday data set if African mythical material, we are likely to come closer to identifying the original Out-of-Africa package.

Another form of distributional clues to dating is offered by the presence of West Asian themes in the dataset of African cosmogonic myths. Here we have to make a tripartite distinction between

- a. such West Asian themes as are known to have entered sub-Saharan Africa in the last two millennia under the influence of Islam and Christianity,
- b. those that appear to have brought directly from West Asia and Northwestern Africa (from the 'Extended Fertile Crescent' of Neolithic food production through agriculture and pastoralism
- c. those that resulted indirectly from such Neolithic expansion in the sense that it pushed Khoi-San speaking hunter gatherers from West Asia into Africa, where (due to continued type (b) pressure) they ended up in the Southern African *cul-de-sac*. If among the Masai we find close parallels to the biblical stories of the Flood and of Jacob's deception of Isaac, I am inclined to attribute this to

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³⁹ Such a recent diffusion has e.g. been claimed for board games and other games, **[add refs]**. If we agree the argument in the main text to the effect that Nrrative Complex 6 (the Ogre) originated in South East or Central Asia, its presence in New Guinea and Australia may also be due to relatively recent diffusion.

(b). In the same way, I am inclined to attribute the parallels between Khoi-San myths and the biblical Cain story to (c); the precise interactions and distinction between (b) and (c) needs to be further sorted out.

Below, when the various dating methods discussed in this section will be implied to our various cosmogonic Narrative Complexes, we shall come back to these West Asian themes, and remark that it is particularly in the Narrative Complex 2-3 (Separation of Heaven and Earth / What is in Heaven) that they become discernible, e.g. the widespread and widely diversified imagery of the celestial pole is among these themes, hence the Luwe theme. Since the same theme may be suspected not only throughout Eurasia (including Upper Paleolithic cave art in Europe) but also in Northern America, we may surmise that the theme of the celestial pole is a Eurasian (probably more specifically Central Asian) discovery some 15,000-20,000 years ago. It is unlikely to be part of the Out-of-Africa package, for a number of reasons: the imagery of the celestial revolution is unlikely to emerge in the tropics (where the naked-eye astronomical effect upon which it is based, is inconspicuous). In the same general context one would be inclined to situate some other Narrative Complexes with the same distribution:

- the spider motif (modes of production analysis places this in the early Neolithic and in West Asia; and
- the maiden motif (girl's puberty rites have great continutity between the Navaho and South Central Africa, they do not derive from the invention of food production but from a Late Palaeolithic, (pre-?/proto?-)Dene-Sino-Caucasian context.

6.3.7. Hermeneutics as a clue to dating

A risky but potentially highly insightful dating method is one based on the hermeneutics of mythical contents. Here we try to put ourselves in the place of the conscious historical actor owning, managing and transmitting a particular mytheme or, as coherent combination of a number of mytheme, a Narrative Complex. And we ask ourselves: what sort of specific discourse characterises, at the hermeneutical level, a particular mytheme or a particular Narrative Complexes – and how can we arrange two specific discourses (a) and (b) into a sequence where (b) can be argued to be only possible, only thinkable, provided the conscious actor has first had (a) at her disposal, secondarily transforming (a) so as to arrive at (b), typically at a point in time later than the period typically associated with (a). I propose a number of specific ways in which hermeneutics can be argued to offer concrete clues to the dating of mythemes, and *a fortiori of* Narrative Complexes.

6.3.7.1. Formal content analysis as an application of hermeneutical dating

One generally applicable form of hermeneutical dating looks at the way the available mythical material displays contradictions, or gives evidence of contradictions having been resolved by sleight of hand. A few examples may be cited.

1) From consistency to chaotic fragmentation: Hermeneutic dating appeals to the tendency of the conscious human mind to impose meaning and coherence

upon the elements that it draws within the orbit of its reasoning, even in the context of mythical imagination. So if we find two Narrative Complexes,

- a. one of which is elaborate, containing items X among others, and makes coherent sense,
- b. another is fragmentary, lacks cohesion, and does not make sense, but still contains item X among others, then we may propose that (a) is the more original form from which (b) is derived, not only typologically but also generically, in a time sequence. Here the postulated historical process goes from (a) logical coherence in the original form, to (b) logical coherence lost in the, subsequent, eroded form.
- 2) From hierarchy to equality and vice-versa: Sometimes the only difference between two mythemic variants is that between A and B, mythical characters or collectivities, variant (a) claims a relationship of hierarchy (servant, demiurge, etc.), whereas variant (b) claims one of equality. As is generally recognised throughout the scholarly literature on myth analysis, hierarchy or equality in myth is often a way to express the relationship between two population groups (e.g. invaders and autochthonous population), each the owners of the alternative version, one (the hierarchical version) expressing historical victory over the vanquished, the other (the equality version) claiming the vanquished's superiority in terms of seniority and ritual purity in relation to the local land or other contested causes. Although the input of additional material is needed from archaeological, linguistic and or genetic sources, it is often possible to advance a plausible hypothesis as to the likely historical sequence involved.
- 3) From alien origins to kinship: Sometimes the only difference between two mythemic variants is that variant (a) claims A and B to be unrelated, whereas variant (b) claims a specific close relationship, e.g. as between parent and child, or as siblings. Here again the variants seem to reflect the trajectory of historical relations between two groups, each owning the variant version. For instance, if in certain Narrative Complexes the Lightning Bird and the Rainbow Serpent appear as completely autonomous, unrelated, and without reference to the other, whereas in other Narrative Complexes Lightning Bird and Rainbow Serpent appear as brothers or as rivals, under the overarching authority of the Supreme Being who is presented as the parent of either or of both, the most likely explanation is a historical sequence where Lightning Bird and Rainbow Serpent at first represented totally unrelated, distinct Narrative Complexes, which however at a later point in time found themselves brought together in the hands of historical actors at the end of chains of mythical transmission both from Lightning Bird supporters and from Rainbow Serpent supporters – so that rather that the impossibility of denying the legitimacy or either cosmogonic version brought one to accommodate both versions in a new dispensation.
- 4) Shifts in hierarchy: Another such formal hermeneutical consideration is based on the principle, that symbols of divinity and supreme authority tend to be relegated to junior, subordinate status, whenever they (and/or the people originally associated with these symbols) are supplanted by a later group of symbols. Older gods vanquished by newer gods become, ultimately, the

- servants, messengers, children, junior relatives, wives etc. of the victorious newcomers. Reversely, mythical figures encountered in such secondary or subservient positions may often (but, of course, by no means invariably) be considered to be remnants of an older layer of politico-religious organisation, overlaid with one or more newer layers.
- 5) Gender shifts: A variant of the preceding principle is that, as a historical process reflecting the emergence of the state and of men gaining marked dominance over women in the construction of a more complex society, the gender of mythical protagonists may be inversed, notably from female to male; for instance, the Virgin Supreme Being and her Son/Lover becomes the Father and his Demiurge Son.
- 6) A number of conceptual transformations must be noted whose implications in term of historical sequence is not immediately clear:
 - a. *a plurality of protagonists may be conflated into one person*, e.g. the Virgin Supreme Being and her Son/Lover, or the Father and his Demiurge Son, become one Supreme Being; of one Supreme Being is split into several component protagonists
 - b. the conceptual juxtaposition of opposite is personified and epicised as the concrete fight between two concrete protagonists, e.g. Night/Darkness and Day/Light, Good and Evil, become the Demiurge Rain and the Rainbow Snake who brings Dryness; this is the procedure of 'epic personification', of which Appendix VI [check number] offers further examples, albeit from the domain of Graeco-Roman mythology and not directly from African mythology.
 - c. In similar fashion, we may see some of the abstract concepts of a specific Narrative Complex transformed into a more concrete evocation, e.g.
 - Celestial axis > pole, connection, spear > spider
 - Primal waters > ogre
 - Rainbow snake > dragon (which in a quite recent phase may be further reinterpreted in astronomical terms, e.g. as the circumpolar stars (which are largely invisible or at least inconspicuous from sub-Saharan Africa), or as the Dragon's Head and Dragon's Head marking specific artificial constructs in the technical prediction of lunar and solar eclipses, -- a multi-headed nature may then derive from the number of days of a week
 - Polar star heading celestial pole > Jupiter, Venus (a conception repeatedly attested in sub-Saharan Africa even though astronomically this is total nonsense).

6.3.7.2. Humankind's gaze gradually turning upwards?: Celestial and meteorological themes as a possible clue to dating Narrative Complexes

The present argument depends on the attempt to try and situate the mythological and cosmological emphasis on the sky in the Eurasian material in some temporal sequence. Here we have to distinguish between between the following sky themes:

- sun
- moon
- morning star, evening star
- other planets
- visible fixed stars, asterisms, moon stations, constellations, the diurnal rotation of the firmament around the celestial pole, most conspicuous in the circumpolar stars which never set
- thunder and lightning⁴⁰
- rain
- clouds
- the firmament in general

All these celestial/meteorological themes are richly represented in myth throughout the World. Sometimes the historical and iconographic record allows us to discern aspects of the long-range history of some of these themes, e.g.

- of the circumpolar theme (-associated with snake, leopard and dragon) a theme however that is mainly conspicuous in the temperate zones, where the circumpolar stars can be seen turning around the celestial pole, never to set,
- the advent of a sky religion in Old Kingdom Egypt,
- the likelihood that the emphasis on rain and on the calender greatly increased with the invention of agriculture marking the onset of the Neolithic

However, we must not exaggerate the extent to which such systematic, material correspondences relating to the historically traceable succession of modes of production, can make sense of the history of mythology. The variation and succession of myth, as an invention of the human mind much given to experiment, innovation,

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⁴⁰ It is important that lightning has a moral in addition to a cosmological significance: it punishes witches, but on other occasion appears in itself as a force working not good, but evil:

In Dahomey, West Africa, lightning is the element with which the thunder-pantheon children of Sogbo punish wrong-doers. Gbadě, the youngest members [sic! MAS] of this pantheon, is the one most easily angered, and he alone is the one who kills with jagged lightning. His thunder causes the eggs of lizards and crocodiles to hatch. A man killed by lightning is thereby convicted of a serious crime; he is not buried by his family, but his body is consigned to the priest and cult-members of the thunder pantheon for disposal. His belongings are thrown away at the crossroads and never again touched (...); his house is surrounded by a barricade of palm fronds to keep any one from entering it. [this is the faint echo of a creation myth in which the cosmic egg, in association with thunder and lightning, is domesticated in a totally different mythical environment; thunder and lightning evoke a state of being that is prehuman, primordial, and that needs to be radically separated from the realm of human circulation. Here we are reminded of srelated myths in the corpus, where the rescuer of mankind, being from heaven, has to be expelled and - Girard fashion, cf. Jesus, or the Malawian victim god Mbona [add Griard and Schoffeleers ref] -- has to be made a victim. [cite the myuth in question] : he is sacred, in the best traditions of Frazer's Golden Bough and Girard's [add title] . [SIMILAR TO WITCHES AMONG THE MANJAK]

and free variation, can only to a very limited degree be accounted for by the historical sequence of material conditions in the domain of production and reproduction.

For instance, the falcon (hr) is one of the few bird species whose name has (for those who, like myself, attach considerable value to the Nostratic hypothesis) a pan-Nostratic distribution, which (under that hypothesis) would give that bird name very special Eurasian significance – as immortalised in the Ancient Egyptian Horus (hr) cult so central to the state and the kingship of Ancient Egypt from the 1st dynasty onwards. I cannot think of any material argument why, of all animal and specifically of all bird species, the falcon should be so privileged, and am inclined to take the remarkable pan-Nostratic continuity as a sign that upon the falcon a mythical theme has been projected that was already ancient and sacred when Nostratic came into being:

- presumably the theme of the lightning bird,
- or, alternatively, that of a primal bird laying the cosmogonic egg
- these two themes may be construed to be intimately related in the sense that lightning re-actualises the original, chaotic and pre-social effervescence of cosmogony)
- a bird of lightning or a cosmogonic bird clearly belongs to the domain of celestial symbolism. However, although not all celestial symbolism may be related to the intertwined themes of
- invention of agriculture, hence reliance on rain and the calender
- possibility of material surplus accumulation and redistribution, conducive to a
 class of redistributors which eventually led to aristorcracy and the kingship a
 social inequality that was not biologically inscribed (unlike age and gender)
 and that was perpetuated through the generations

It is reasonable to suppose that the emergence of these two themes brought about such a new fascination with the vertical and the above, that any mytheme in which this vertical emphasis is clearly absent, may be suspected to relegate to remote antiquity and may well be a candidate for the pre-Out-of-Africa package.

But how far can we stretch this hypothesis of the emergence of verticality? It is not so that ancient humankind only started to look at the skies in the context of agriculture – it is equally if not more likely that such astronomical insights as Late Mesolithic humankind brought to to invention of agriculture and animal husbandry greatly stimulated the initial success of those inventions. Orientation by the stars is essential for hunters of big game, who may venture scores, even hundreds, of kilometres away from their base camp or village and do part of their hunting during the night, and the same orientation would have been a great asset to early pastoralists roaming around in an attempt to impose a measure of control on herds of wild bovines and reindeer. Plausible archaeoastronomical arguments recently place the origin of the constellations at c. 20,000 BP. There is no point in arguing a dramatically earlier date for them, and certainly not to include them in the Oud-of-Africa package, because in the 150,000 years elapsed in the meantime proper motion will have played havoc with constellation outlines and such as could have been distinguished then, would not longer be recognisable now (with the exception of the asterism of Orion's belt, which is remarkably stable). Cf. Fig. 1a, b, c. Moreover, precession and other long-range periodic movements of the earth would have greatly influenced constellations visibility at specific places on earth.

A further argument that ancient humankind already turned its gaze to the stars long before the invention of agriculture is to be found in the increasingly extensive body of archaeoastronomical writings that claim the existence of Upper Palaeolithic and even older stellar maps, on the basis of detailed astronomical arguments projected onto prehistoric representations. [add refs: Rappenglueck, van Binsbergen, Forlov, etdc.; see biblio Rappenglueck] Even so, it seems safe to assume that the discovery of the earth's diurnal rotation and the representation of that discovery by the image of a celestial pole (pillar, roof support, spear, tree of life, mill, churn, firebore) is no older than c. 20,000 BP; this tallies with our earlier, astronomical considerations for situating Narrative Complex 2 in the temperate zones and not making it part of the Out-of-Africa package. The truly revolutionary discovery of the earth's diurnal motion (or at least, of the heaven's diurnal motion — which is how the earth's motion presents itself at the level of direct experience) in itself may have had great productive and conceptual implications facilitating the transition to new modes of production.

6.3.7.3. The notion of an underworld: Another possible clue to dating Narrative Complexes

Now if the upward gaze of humankind has already a considerable time depth, how about the notion of an underworld? In the widespread shamanistic worldview we see a tree-partite division, underworld/surface world/heave, united by a vertical element (celestial axis, tree of life such a Yggdrasil, etc.) along which the shaman is privileged, among humans, to move up and down. One reason to situate the discovery of celestial rotation and hence the rise of the idea of a celestial axis at 20,000 BP, is that other reconstructions [van Binsbergen on leopard etc.] suggest that shamanism is not older than that date, but probably somewhat younger, and stands at the beginning of major changes leading to kingship, the state, organised religion, writing and science. With Upper (perhaps also Middle) Palaeolithic humans' tendency to dwell in caves, and to use caves as ritual centres, the notion of an underworld, far from being unthinkable to them, may well have been part of their cosmological repertoire. This is also corroborated by the fact that evidence of deliberate and ritualised burial goes back to Middle Palaeolithic times, even before the advent of Anatomically Modern humans. It is an attractive working hypothesis (but, given the importance of meteorological phenomena such as thunder and lightning – fire! – and the fear they tend to inspire, far from self-evident) that the notion of an underworld predate humans' raising their gaze to heaven. If we accept such a working hypothesis, then myths relating only surface world and underworld, and ignoring the sky, may be classified as structurally older than those with a sky element. The point is an important one, because in ancestral beliefs throughout Africa ancestors are held to dwell, not in the sky, or elsewhere on the earth's surface as inhabited by the living, but in the underworld, particularly in river beds beneath the water. The same theme may be encountered in Eurasian folk stories. The belief in an underworld may be another candidate for the pre-Out-of-Africa package – although again we have to be very careful to check our conjectures against the distribution of the notions in question in Australia and New Guinea.

6.3.7.4. The conceptualisation of evil and the occult as a domain where the oldest Narrative Complexes are likely to lurk

Cosmogonic Narrative Complexes may be suspected to contain some of Anatomically Modern Human's oldest imagery and phantasms, and this makes it likely that the oldest Narrative Complexes, i.e. those postulated to have belonged to the Out-of-Africa Complex, are particularly conspicuous in the repertoire with which, also in much more recent periods, the occult, the forbidden, the anti-social, and evil in general is conceptualised. This hermeneutical argument points to the following Narrative Complexes:

- the trickster motif (which has very substantial New Guinea and Australian parallels!) however, within the limitations of the present data set I have seen no reason to raise the trickster motif, with its likely connotations of hunting and gathering (as highly unpredictable undertakings as compared to Neolithic food production) to the status of a separate Narrative Complex
- the ogre motif (which also seems to have substantial New Guinea and Australian parallels!) and the related Python motif as exhaustively analysed by Fontenrose however, within the limitations of the present data set I have decided that the ogre motif is not really all that archaic, and that it is best considered a secondary transformation of the Primal Waters and Flood theme
- the motif of the primal waters, even though I would not situate this in the Out-of-Africa package
- the rainbow serpent (which has very substantial New Guinea and Australian parallels!)
- the lightning bird and world egg motif

These motifs do abound in the domain of witchcraft and sorcery. It stands to reason that in such a domain, very archaic layers of collective imagery are being exploited. Again we must ask ourselves whether such imagery is entirely transmitted along cultural, social communicative lines, or may also somehow be enshrined in the hereditary provinces of the subconscious. Anyway, considering this list of narrative themes in the subconscious, it is clear that not all of its contents hail from Africa, and not all from before the Out-of-Africa migration.

6.3.7.5. Routinised transcendence as an instance of hermeneutical dating of mythical contents

Routinised transcendence is found in such relatively recent and relatively well-dated institutions that mark the beginning of documentary history: writing, the state, organised religion, and science. These are all characterised by exploiting to the full, and as a basis of extreme differences in power and privilege within society, the capability of effectively departing from the here and the now, and of exercising control beyond the here and the now. (Such a departure is already implied in any capacity for articulated speech – 'language is a vicarious act' (Reichling), and therefore has almost per definition been with Anatomically Modern Humans since her appearance, 200,000 BP (for in fact what interests us in Anatomically Modern Humans is not their anatomy – however we have been programmed to find it

attractive! - but their capability of speech, thought, symbolising, and hence for full socio-cultural life as we know it). A weakness therefore of this hermeneutical approach is that is applies throughout the history of Anatomically Modern Humans, and therefore cannot mark differences in kind within that history; however, it does mark differences in degree: without doubt, routinised transcendence has enormously gained in importance since the invention, in the Late Neolithic, of writing, the state, organised religion, and science - hence Narrative Complexes, and their constituent mythemes, that can be argued to unmistakably reflect routinised transcendence, ipso facto may be implied to have a post-Mesolithic dating. The world history of transcendence⁴¹ amounts to the gradual shift from general bodily (locomotive, productive and reproductive) functions realised in the here and the now, to vicarious and virtualised functions realised through the spoken, and especially the written, word; hence the turning upward of the human gaze, from the earth to the sky, and also, for instance, from bodily functions of reproduction seated in the genitals, to symbolic reproduction via the mouth (vomiting, speech) and even via the brain and the head (Athena's spectacular birth from her father's skull). Shamanism emerged as a crucial step towards such a development, foreboding all the later institutions of routinised transcendence (writing, the state, organised religion, and science), and considering its world distribution (Eurasia, Northern America, with only inroads into other continents including Africa) and many more specific features (van Binsbergen, leopard book, forthcoming) would be best situated in Central Eurasia c. 15,000 BP – with early ramifications into Late Palaeolithic south-western Europe, where shamanism's cosmological and astronomical knowledge can be construed from a painstaking analysis of rock art. Contrary to cherished images circulating in the Harvard Roundtable circles (at least during the 6th Roundtable, in 2004; M. Witzel, oral intervention), of the initial Out-of-Africa exodus being spurred on by shamans, I am confident (also on distributional grounds, but particularly on the grounds of a painstaking comparative analysis of constituent features of shamanism, in my leopard argument) that shamanism is a relatively recent phenomenon and cannot have been part of the original Out-of-Africa package.

6.3.7.6. Could the idea of origin serve as a possible clue to dating Narrative Complexes?

The above argument on the articulation of modes of production appears to have implications, not only for humankinds' perception of space (the increasing emphasis on verticality), but also of time (cf. van Binsbergen 1981: ch. 4). I will first present a general theoretical argument on time perception that has guided my research on myth and protohistory over the past decades; I will then revise that argument in the light of the evidence now at hand, i.e. my data set of African cosmogonic myths as collected in historical times.

Let us consider somewhat more closely the notion of origin and creation that underlie the cosmogonic myths discussed in the present argument. If we may agree

• that the idea of 'creation' combines 'origin' with 'personalised agency', and

⁴¹ One of my current research projects around the chair of Intercultural Philosophy, Erasmus University Rotterdam.

• that for our present purpose we may concentrate on 'origin', saving the discussion of 'personalised agency' for some other occasion,

then what kind of a time conception does one need in order to make the idea of origin thinkable at all, and the topic of a story?

Of course, the universal observation of individual birth and death in the world of humans and animals makes one familiar with the idea of coming into being, but in principle only at an individual level, against the background of an overall cyclical time conception of the rhythm of day and night, months, seasons, and human life.

A quarter of a century ago I submitted (cf. van Binsbergen 1981: ch. 4) that mainly two, intimately related, social conditions create the context under which such a natural, cyclical conception of time may give way, in historical actors' consciousness, to a linear conception of time which these actors then apply to the whole of humankind and the whole of the visible world, with a beginning, an end, and progress along qualitatively different stages or phases:

- social innovation, when a new social group and an associated practice is initiated: a cult, a religious and/or political office, a distinct and named kin group, ethnic group, or other subset of society
- legitimation of difference and of privilege (through a foundation charter), in the context of the distinctions newly instituted under (1).

It stands to reason that the societal energy invested in such boundaries, distinctions, differences, and priviliges, requires a considerable level of surplus production and imply a considerable level of institutionalised social inequality perpetuated from generation to generation. The linear conception of time typically belongs to the social world of priests, chiefs, kings, aristocracies, professional guilds, considerable social complexity, and incipient statehood – it is a typical part of the revolutionary package emerging in the Fertile Crescent of West Asia and Northeastern Africa in the late fourth millennium BCE: writing, the state, organised religion, and science: the entire package of 'routinised transcendence' referred to above.

More than any other writer, Eliade in his famous studies in comparative religion [add refs] has made us appreciate the importance of the conception of time for the understanding of myth. He argues that any myth recreates the conditions of 'in the beginning', before the world started to be a less pure place and became contaminated with illness, scarcity, greed, evil, witchcraft, violence, death etc. As a Christian, as a product of North Atlantic modernity, and as someone who never shared a prolonged and intensive life experience with illiterate people outside the North Atlantic, Eliade may have subconsciously projected, onto his analysis of myth, the tacit assumptions of the modernist and Christian time conception (shaped by the historicism of Hegel and Vico, and by the Christian reading of history as uni-directional salvation history in the postlapsarian era). If we try to take our distance from the modern North Atlantic conception of time (which is inevitably extremely difficult for us, for that conception forms one of the most central collective representations of the world today), we will see that mythical time, e.g. dream time in the Australian Aboriginal sense, may be

'not now, and under radically different conditions regrettably no longer prevailing today',

without implying the processual notion of beginning, continuation, and end, so imbued not only in North Atlantic notions of social institutions, but also of art, invention, and of causality in the non-human world. According to a stereotype that has a measure of truth in it, invention, innovation, even though in practice engaged in all the time (cf. Schapera, *African chiefs as innovators*), [add refs] yet in principle goes against the grain of 'traditional' society, such as existed in many part of Africa until the early 20th century CE. This also allows us to highlight the position of the culture hero or heroine: such a figure typically institutes, not so much the non-accumulative modes of production of hunting and gathering (although he may have come to be associated also with these), but especially the material means of surplus production (seeds, implements, metallurgy) as conditions for the emergence of a more complex, hierarchical society, in which innovation, difference and privilege require charters of origin.

If we see cosmogonic myths as the answer of the individual human mind to perennial questions 'who am I, where do I come from', etc., then cosmogonic myth could be assumed to be universal among Anatomically Modern humankind – for the mind of this type of humans to which we all belong, must be considered the same throughout all periods and regions. However, if we see cosmogonic myths as requiring a particular, far from universal, linear conception of time, then it becomes conceivable that certain people do not have cosmogonic myths: for they lack the complex, hierarchical, charter-orientated socio-economic organisation.

In addition we may highlight the affinity between the idea of a cosmogonic myth, and the idea of the written text, the *book*. The book in its most typical form has an unequivocal beginning, linear progress, and end, it is a distinct whole separated by the details of its material constitution (binding, covers – imperfectly emulated nowadays, in the case of electronic books, by electronic addresses) from the rest of reality that surrounds it, and it is internally integrated.⁴² This is not to say that the cosmogonic myth can only exist in a literate *milieu*, but at least we may admit that the correspondence between literacy and cosmogonic myth is so striking that literate societies (who tend to be statal, and in the possession of organised religion and science) are the ideal context for cosmogonic myths. This is another reason to suggest that cosmogonic myths are far from universal, and relatively recent inventions of humankind.

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⁴² The point of a myth's *integration* has important implications for the kind of sustained process of transformation and reformulation of mythical contents that is postulated, in the present study, to underly global mythical history from the time of the Out of Africa exodus onwards. Our data set gives many examples of the attempt towards consistency, e.g. virgin birth is proposed as a way out of the dilemma of the unavailability of man for fertilisation at the supreme moment of cosmogony; hierarchical relations are transformed into relations between equals, and vice versa, so as to suit the later reading of a myth in a new socio-political environment, etc. Farmer et al. 2002 have given much thought to this kind of process of continuous reformulation of traditional texts in an attempt to reduce newly arisen inconsistency. Although their point of departure was manuscript traditions, it is my impression that the high hopes they have for this perspective to have formed some kind of general engine for religious / doctrinal change, may also prove valuable for the vast expanses of time when myths were transmitted, and revised, only in oral and ritual form, and not in material texts.

The above sums up the state of my thinking on time and cosmogony before, with the present argument and data set, I started to look closely at the sub-Saharan African mythical material. For African cosmogonic myths, the above argument seems to have the following possible implications:

- 1. when, in the African mythical material, we encounter myths about crucial past experiences of mankind, without the explicit mention of creation, cosmogony or origin, we may be in the presence of very ancient material belonging to very ancient modes of production (hunting and gathering);
- 2. when, in the African mythical material, we encounter straightforward creation myths, these may either
 - o carry the reminiscence of the local, African emergence of more complex, charter-oriented social formations, or
 - o be tell-tale signs of diffusion (through prehistoric population movements, through the spread of Islam and Christianity, etc.) of myths from those parts of Eurasia where social complexity has installed the creation myth as an established genre.

However, having struggled with the sub-Saharan African data set for some time now, I am not so happy any more with these ideas, which all seem to deny Africans, now or in the past, the capability of thinking genuine origins.

It is an accepted idea in the study of myth (cf. Eliade 19...; [myth eternal return]) that humankind's most natural, so to say 'default', conception of time is cyclical, and that a linear conception of time is a historical achievement of only a limited number of civilisations. Also Witzel (2002) makes the contrast between linear and cyclical time in order to distinguish between the Laurasian (Eurasian and Native American) and the Gondwana (Africa, New Guinea, Australia) mythological family, suggesting that African cosmogonies cannot conceive of real origins, and tend to present anthropogonies where, in fact, humankind already turns out to exist.

Considered superficially, the Narrative Complex of the Ogre (6) may serve as an example of this: humankind emerges when the young hero, born from a particular woman singled out in the story, releases it from the Ogre's belly or cave. Here it appears as if humankind was both created, and already existent (in the persons of the imprisoned people, as well as the young hero and his mother) at the same time, but it is easy to see that if we consider the young hero and his mother not as humans but as deities (typically, manifestations of the Virgin Mother and her hero son, of Narrative Complex 19), and the belly or cave as conditions of non-existence, the story sheds its apparent illogicality. Also, the Ogre's Narrative Complex may turn out to be less ancient, in a series of relative dating, than is suggested by its occurrence both in Africa and in New Guinea (as if it were part of the original Out-of-Africa package), and its apparent archaic imagery (e.g. the absence of any reference to the sky – for we have postulated the it is only gradually that Anatomically Modern Humans developed an upward gaze towards the heavens). It is obvious that the Ogre Narrative Complex (6), with its featureless encompassing entity (the Ogre's belly or cave), is rather similar to the Narrative Complex of the Primal Waters (containing the same featureless all-encompassing medium - which metaphysically could very well be identified as 'the state of non-being' - from which all being, and/or beings,

subsequently emerged), and that one could be considered as a transformation of the other. However, one variant of the Ogre story suggests that it is the Ogre Narrative Complex which is a secondary transformation of the Primal Waters Narrative Complex, and not the other way around. For the Primal Waters are typically associated with aquatic animals such as amphibians (e.g. frogs, which, in Ancient Egypt's four rival cosmogonies, dominate the Hermopolitan version of the Primal Waters Narrative Complex, in that the four original male gods (Nun 'Primal Water'; Heh 'Eternity'; Kuk 'Darkness', and Amon 'Invisibility') were depicted with frog heads, their female consorts with snake heads; well, in the Ogre variant in question, it is a particular animal, a frog, which warns the Ogre of the murderous intentions of the young hero – as if this narrative element was retained and given a new function when the Primal Waters theme was transformed into the Ogre theme – typically in an environment (e.g. desert, savannah and rain forest, which together make up most of the interior of Africa) where vast expanses of water (such as attend the Egyptian annual flooding) were more difficult to imagine or were less obvious as evocations of cosmogony.

The element of creation, presupposing personalised agency, may be absent in many cosmogonies both from African and from elsewhere, ⁴³ but the notion of origin does seem to pervade our sub-Saharan data set throughout. Therefore, what my above argument as to the specific modes of production and the conditions of 'routinised transcendence' appears to add to our understanding and relative dating of Narrative Complexes, *appears to be merely an element of degree*, not an absolute distinction in kind. It would appear as if the ability to distinguish between being and non-being, and hence to conceive of genuine origin of being, has been a feature of Anatomically Modern Humans from their very emergence, from... *the beginning*. The circularity of such a statement does not escape me: inevitably, when trying to trace earliest human origins, even when doing so in the format of detached academic thought and writing, we are bound to emulate, in our own modern expressions, humankind most ancient repertoire of cosmogonic myths.

Clearly, the ability to distinguish between being and non-being is closely related to the emergence of articulate language: not so much because such a distinction is to be made *in* language,⁴⁴ but because the capability of making such distinctions articulate language itself cannot exist – articulate language is constituted as the complex manipulation of myriad distinctions between the distinctive features of speech sounds, where the binary opposition (between phonemes, each corresponding with a particular *Gestalt* in the consciousness of the competent speakers) supplants such analogous ranges of similarity and difference as any human vocal sounds will always display. The faculties of complete thought attributed to Anatomically Modern

⁴³ This is also admitted by Witzel (2005) [add ref Witzel presentation Kyoto] , who however proposes to continue to speak of 'creation myths' for the sake of remaining understandable to non-specialists. I appreciate this point, yet have decided that 'cosmogonic myths' is a less misleading and (given the Judaeo-Christian bias in the term 'creation') less ethnocentric term. However, it does pose problems in its own right: for not all accounts of creation deal with the origin of the *cosmos* (i.e. cosmogony) – some deal with the origin of animals (theriogony), of humankind (anthropogony), etc.

⁴⁴ For instance, in the domain of food consumption, the distinction between being, i.e. food being there – and non-being, i.e. food being absent, can make itself felt by the sensation of hunger springing from physiological conditions in the human body (or animal body, for that matter without necessarily requiring language).

Humans cannot be separated from the possession of articulate language, not because thought is necessarily in articulate language, but because language presupposes the capability of making complex combinations of binary oppositions that constitute complete thought.

6.4. An example: Interpreting the cosmogonic myth of the Bushong Kuba of Congo

An example of how close reading may yields clues to situate a myth in time and place may be derived from the famous cosmogonic myth of the Bushong Kuba of Congo (cf. Vansina 19..., 19...; van der Sluijs n.d.): [check against vansina's original]

'In the beginning there was nothing but darkness... there was nothing but water; in this chaos Bumba, the Chembe (Supreme Being), reigned alone. Bumba created (...) the lightning (a beast like a black leopard). First darkness prevailed on earth and the world was covered with water. Then Bumba appeared, a fair-skinned giant, who had to vomit. First he emitted the stars, the sun and the moon. Due to the heat of the sun the water dried up and sand banks appeared. A son of Bumba produced a plant by vomiting, from which issued all other plants. Then he vomited out the animals and mankind, as well as implements for healing, the meteorite, and the razor. Then he rose into the air and disappeared in the sky. Then bumba appeared in all villages and revealed the food laws. He installed the first king on earth. Then he rose into the air and disappeared in the sky'.

It is interesting that none of the implements mentioned are associated with post-Mesolithic food production. This myth may thus be implied to be pre-Neolithic, although there is, in the reference to the meteorite, a possible hint at early metallurgy; and although the food taboos may turn out to apply to crops rather than wild plants and fruits. When kingship is mentioned the myth reveals its hybrid nature as far as reference to historical modes of production is concerned. Kingship marks the existence of institutionalised social inequality and of social complexity, which can only be realised under conditions of great surplus production, such as depend on Neolithic food production. African kings have been known to base their power partly on the control over puberty rites, and the razor to which reference is made, may actually be a circumcision knife. Moreover, the vertical imagery of such inequality is projected onto the natural environment, and installs – or at least, greatly elaborates and emphasises -- the binary distinction between heaven and earth as an innovation. The reference to the basic physical function of vomiting may on the one hand indicate a lack of aristocratic sophistication – a reliance on bodily functions atypical for a courtly royal environment [cf. Elias] However, I would rather be inclined to see the vomiting as a male cosmogonic usurpation - vomiting is one of the few ways in which a male body may produce (the same theme comes back in Ancient Egyptian mythology, where Atum masturbates and Ra' sheds tears for creation, all in the absence of a female womb. The reference to the white-skinned giant may simply contain an extreme expression of othering, such as befits the Supreme Being atthe moment of cosmogony; however, I would read this passage much more specifically, as a reference to the albino culture hero who, from East Asia to the Ancient Near East, appears as the first or only person to emerge from the flood, as Noah, related to the likewise white Great Cackler of Ancient Egyptian cosmogony (layer of the Cosmic

Egg on the first mount to appear from under the flood), and to the Basojaun/Janus cosmogonic figure of the northwestern and north-central Mediterranean, whose sacred bird is the swan. [ref to my Sea Peoples book].

6.5. After dating, the problem of localisation in space

Much as myths do not carry a date tag but impose an all-overriding present upon the situation in which they are found, so myths are also essentiallay unmarked in terms of place of origin, of provenance. The myth is not only the ultimate now, but also the ultimate here. The world evoked in myth, is the world of the here where the myth is being recounted or enacted.

Yet in the present analysis, the problem of situation in space does not seem to pose the same tantalising problems as that of dating. Often the distribution of Narrative Complexes already seems to give a rough indication as to where to locate it is space. More importantly, if we adopt, as our organising frame of reference, the Out-of-Africa hypothesis, then almost automatically any dating implies a particular position along the calibrated curve that swings from ut of Africa to South East Asia, New Guinea, Australia, into Asia, and back into Africa, with secondary ramifications into Northeastern Asia, the Americas, and Europe. Besides, content clues may be offered as to the likely original location of a Narrative Complex, e.g. although we cannot very well identify where, along the line, the Primal Waters came into play (perhaps in South East Asia), their transformation into a white-skinned First Human organising the waters almost certainly hails from Central and/or East Asia.

Finally, all these considerations of dating lead to the kind of analysis summarised in Table 4.

7. SITUATING THE NARRATIVE COMPLEXES IN TIME AND PLACE

Against the background of the great variety of complementary and mutually reinforcing dating methods (and localisation methods) discussed in the previous section, in Table 4 I have listed the main reasons for proposing a particular dating and original location of emergence, for each Narrative Complex.

Some Narrative Complexes initially distinguished turn out to be superfluous – they are better subsumed under other major complexes. The proposed dating uses the dating methods outlined in my section on this point. I cannot sufficiently emphasise the speculative and provisional nature of the entries in this Table. However, it presents a systematic and methodologically underpinned framework, not only for sub-Saharan mythology but for major forms of mythology throughout the Old World since the Middle Palaeolithic.

The significance of such a scheme is *not* that it lays claims to truth or permanence, but that it will be of considerable heuristic and theoretical value, inspiring more focussed future research. I can hardly stress sufficiently that *all*

identifications in space and time as contained in the following table are highly provisional and even contentious. Many or most of these identifications are likely to prove untenable – yet the overall coherence and consistency of the emerging picture, and the explicit methodology (however capable of improvement) underlying these identifications, suggest that the exercise as a whole is truly scientific, and, if subjected to critical but sympathetic and creative scrutiny by a sufficient number of specialists over a sufficient amount of time, may ultimately lead to a much better reconstruction that may then deserve to be supported by a considerable number of serious scholars.

Narrative Complex (number and description)	Discussion	Proposed dating	Proposed original location of emergence
1. The separation of heaven and earth	Is largely identical to 2, and presupposes 10. Not separately needed	-	
2. The connection between heaven and earth after separation	Largely identical to 14, developing from 19; shamanic elements; upward gaze; agriculture, animal husbandry, kingship and perhaps early metallurgy; the celestial axis, which is a central theme in this Narrative Complex, may derive from 12, but mediated through more recent, shamanic elements (16) – which have enshrined astronomical knowledge for which the Upper Palaeolithic fire-bore, and the Neolithic churn or mill with animal traction, are central images; much emphasis on demiurge (< 19), mainly as rain and lightning (cf. 4). This is the central Niger-Congo mythical complex, encompassing the entire Southern half of Africa. Its Asian overtones are another reason to reconsider the extra-African antecedents of Niger-Congo/Bantu.	Neolithic	Central and West Asia/ Extended Fertile Crescent
3. What is in heaven	Derives from 4, 13, 19, but in fact largely identical with 2; along with the protagonists of 19 it is the cosmic rainbow snake who (as adversary) inhabits heaven in 2 (and 3) – absorbing the trickster's role; not separately needed	-	I
4. The Lightning Bird (and the world egg)	Lightning as the central cosmogonic image, both of world making and of latter-day world renewal, the lightning bird and its world egg are very prominent cosmemes in the sub-Saharan African mythical set. The world egg is central to Laurasian mythology, and is likely to be a secondary transformation of 10 ('The earth as primary), which then – long after the Out of Africa migration – no longer features as an autonomous Complex but instead has been subjugated to the Lightning Bird, and is produced by it. So I take the Lightning Bird as the primary element in this Narrative Complex, and the World Egg as a subsequent internal development as a result of having incorporated 10 . It is possible to construe many of the East, South Central, and Southern African attestations of this Narrative Complex as being under South Asian influence. (For instance, the bird mounts of South Asian gods are a subjugated Lightning Bird.) In that case the cosmogonic theme of lightning/world egg, which is truly central to the entire data set, would not be situated as part of the Out-of-Africa package (African Middle Palaeolithic), but in Middle or Upper Palaeolithic South or South East Asia. Yet the ubiquity and the power of this Narrative Complex persuade me to take the risk and to	Pre-Out-of-Africa Middle Palaeolithic?	Sub-Saharan Africa?

	include this in the Out-of-Africa package.		
5. The mantis	Probably a transformation of 4, but with shamanic elements (16). Association with Khoi-San speakers would superficially suggests great antiquity and part of the Out-of-Africa complex, but recent genetic findings favours West or Central Asian rather than Southern African origin for Khoi-San speakers and hence for this Complex. Details seems to confirm this, like reference to shoe, moon, and the fact that in Ancient Egyptian shamanism (which is closely connected with the emergence of the state, under unmistakable West Asian influences) the shaman's familiars are spider (cf. 15, and 2). The trickster theme comes back in 17, and is typical of hunting and gathering as a mode of production – although it was subsequently incorporated in 2 as an aspect of the demiurge (cf. 19)	Upper Palaeolithic	Central Asia
6. The ogre	Rather akin in form and function to 11, but simpler. In combination with 19 produces the widespread Python vs. Apollo mytheme. Essentially a narrative to explain the rescue of Being out of Non-being. Occurrence in Australia and New Guinea of the ogre theme suggests it to be part of Out-of-Africa package, which is astonishing in view of its sophisticated discursive message. As argued in the main text, I would rather view this Narrative Complex as a secondary transformation of 11, and therefore give it the same situation in space and time	Upper Palaeolithic or Mesolithic	(Central/ South East/ East) Asia
7. From the mouth	Masculinising reinterpretation of 19, late; cf. Ancient Egyptian forms of male substitution of female reproduction: Atum's masturbation producing the first pair of creatures (Tefnut and Shu), the tears of Re ^c producing humankind, Athena's birth from her father's head	Neolithic or Bronze Age	Extended Fertile Crescent
8. The stones	Not specific to any particular mode of production, which suggests great antiquity. Originally part of 10, but reinterpreted in the light of 19 (stones represent demiurge) and 2 (stones from heaven = meteorites = iron; in the latter case Neolithic or later) – hence not separately needed	-	-
9. The moon	Connotations of cosmic egg (4); of women's cults cf. 10, 1 and 15; of human sacrifice; of kingship and royal cult (also star cult) including human sacrifice, regicide and <i>suttee</i> ; incompletely integrated in 2. The penetration of several major other complexes suggests great antiquity of this complex. Conus shell lunar ornaments distributed in East and Central Africa and New Guinea. Despite the lunar dominance in the data set I hesitate to propose a pre-Out-of Africa origin, and would rather propose South or South East Asia.		South or South East Asia
10. The earth as primary	Probably associated with puberty rites/ circumcision, for which I have build a case for their belonging to the original 'Out of Africa' package. In recent millennia this Narrative Complex was largely incorporated in 2, but much older – the distinction between upper world and underworld seems more primary, preceding the upward gaze of 2; origin of animals, much later (Neolithic) limited to cattle; in recent millennia, purification after murder has become part of this complex but comparative evidence suggests that such purification is shamanic 16	Pre-Out-of-Africa Middle Palaeolithic, revised (cattle) in Neolithic	Sub-Saharan Africa
11. The primal waters and the flood	Separation of the waters; flood in punishment of murder (no earth-related purification), really discontinuous with 10; incompletely accommodated to 2 (the demiurge,	Upper Palaeolithic or Mesolithic	(Central/ South East/ East) Asia

	Rain/Lightning, here becomes an agent of destruction; distribution of the flood motif in Africa widespread but mainly along the coast – suggestive of maritime diffusion from South Asia and/or Oceania); comparative evidence suggests (Central /South East/East) Asia Upper Palaeolithic or Mesolithic as place of origin – cf. the global dramatic rise of sea level at the onset of the Holocene		
12. From under the tree	Not specific to any particular mode of production, which suggests great antiquity. Intercontinental distribution of tree burial (New Guinea, South and South East Asia) compatible with belonging to Out-of-Africa package. On the other hand associated with the Tower motif, which has a restrictive distribution in Africa suggestive of West Asian origin; so does the shamanic connotation of West African bard, singled out for tree burial	Upper Palaeolithic / Mesolithic	West or Central Asia
13. The cosmic / rainbow snake	Not specific to any particular mode of production, which suggests great antiquity. There is a link with 10 and 11, and along with the protagonists of 19 it is the cosmic rainbow snake who (as adversary) inhabits heaven in 2 (and 3) – absorbing the trickster's role. Distribution in Australia suggests the Complex to have been part of the Out-of-Africa package.	Pre-Out-of-Africa Middle Palaeolithic	Sub-Saharan Africa
14. Fundamental duality	Here the asymmetry between senior cosmogonic virgin and her son/lover has moved towards symmetrical balance, due to male ascendance in modes of production (metallurgy/petty commodity production, hunting, raiding/war) dominated by them. The emphasis on bisexual attributes of gods also belongs in this Complex. Much of the symbolic elaboration of 2 is in terms of this complex. Late (Baumann 1965).	Neolithic to Iron Age	Extended Fertile Crescent
15. The spider and feminine arts	The spider features in three ways: as trickster (cf. 5, 13, 17, 20); as connection between heaven and earth and hence, by substitution, as Supreme Being (Nyambi, Anat, Neith, Anahit, Athena etc.); and finally as the patron of weaving. The martial connotations of these virgin goddesses may be explained by (or may have secondarily inspired the institution of) female warriors, but is more likely a consequence of 14. There is a link with shamanism (see under 5). The concentration in a core area stretching from West Africa to the Indus suggests this to be a relatively late Complex.	Mesolithic or Neolithic	Extended Fertile Crescent
16. Shamanism, bones	Although shamanic themes abound in the data set, and have particularly shaped 2 (ascent and descent along the celestial axis is shamanic), shamanism is not at home in Africa, and I refer to my other work (especially on leopard-skin symbolism world-wide) for the complex linguistic, iconographic and archaeological argument to the effect that shamanism emerged in Central Asia in the Upper Palaeolithic	rly shaped 2 (ascent and descent along the celestial amanic), shamanism is not at home in Africa, and my other work (especially on leopard-skin m world-wide) for the complex linguistic, ohic and archaeological argument to the effect that m emerged in Central Asia in the Upper	
17. Spottedness and the leopard	In the sub-Saharan African mythical material of the historical period, the leopard appears in two fundamentally different forms: (1) as the Exalted Insider (often associated with the sinister sides of kingship, but essentially the trickster, and as ancient); (2) as the Sacred Outsider, who as a sign of sacrality and of victory over evil dons a leopard skin. (2) is strongly shamanic, and marks the five principal forms under which shamanism has made inroads into Africa in recent millennia: bard, saints, Nilotic earth priests, kings, and ecstatic healers. However, (1), which I see as the	– (Pre-Out-of- Africa Lower Palaeolithic)	– (Sub- Saharan Africa)

	core of this Complex, is very ancient, going back to a fascination for spottedness and for leopard as 'spotted animal' which encompassed the entire Old and New World, and – with the colour triad red/white/black – was probably part of the Out-of-Africa package. As the ultimate trickster, the leopard has combined the qualities of predator with that of distributor of food, in the sense that, long before the emergence of Anatomically Modern Humans, early man may have competed with other scavengers for portions of the predator's kill. However, as I will work out in section 8 below, all the ingredients of the leopard/spottedness complex are in fact implied in the combination of Narrative Complexes 10-4-13, which together I take as the original Out-of-Africa mythical package. Much as I am partial to the leopard and spottedness theme, which has dominated my long range research for the past few years and has yielded many of the insights (for whatever they are worth) of the present analysis, I now believe that we do not need the leopard as a separate Narrative Complex.		
18. Honey and honey-beer	References to honey are rare in the data set and difficult to classify. They form a loose end. Occasional collecting of wild honey is considered a constant from the Lower Palaeolithic, while sophisticated techniques and equipment are depicted from the Mesolithic. There is a link with the kingship, in Egypt, Madagascar (with South East Asian connotations), and South Central Africa. The bee represents both heaven, and descends along the celestial axis – and the underworld (where she may live, in addition to trees). The symbolic elaboration is therefore largely 2, but in fact this Complex is not separately needed	_	-
19. The cosmogonic virgin and her son/ lover	An analysis of cosmogony based on rational causal analysis and sense of time – such as one would expect in a society with established social inequality, charters justifying privilege, and basic practical biological knowledge applied and sustained in agriculture and animal husbandry (the cosmogonic virgin appears as celestial cow). In addition to its great dominance in the sub-Saharan African mythical data set, his Complex constitutes the dominant theme of religion in the Ancient Near East including Ancient Egypt, and the implied theme in much Graeco-Roman and Northern European mythology	Neolithic	Extended Fertile Crescent
20. Contradictory messengers bring death	The most popular theme in the data set. Links with 10, and with the trickster elements in 5 and 17, yet so effectively incorporated into 2 (the connection between heaven and earth after their separation) that no special Complex seems required.	-	-

Table 4. Postulated/ reasoned relations between the Narrative Complexes, with proposed dating (extremely provisional) and proposed original location of emergence (likewise extremely provisional).







Figure 14. Praying mantis, egg case, and egg case with immature mantis.

The mantis in latter-day Khoi-San (Southern Africa) cosmogony (also conspicuous in historical Chinese art) may be understood as an East/ Central/West Asian transformation of the Narrative Complex of the cosmogonic bird and its egg (cf. the mantis' white egg case as depicted), subsequently carried into Africa as part of relatively recent (c. 10,000 BCE) return migration, and not part of the postulated original Out-of-Africa package



Figure 15. Illustration Narrative Complex 15: The Spider and feminine artsThe goddess Neith, Anahita, Athena, Anit, Anath, Anatu (distributed over a region ranging from Libya to Iran, Turkey to Sudan) have more in common than their names: they are all virtuous maidens, equally skilled at spinning and weaving (hence their spider associations) as in the handling of weapons. True to ancient semantics, their virtue lies both in their virginity (the word's Indo-European etymology related to 'power'), and in their prowess.

This means that Bernal's adoption of Herodotus' claim that Athena came from Neith misses the very historical truth to which it comes so close, as explained in an extensive footnote to section 1.2. 1. Two versions of Anahita are shown, 1 A a 4th millennium one (*shaped like a spider's body!*) and 1 Ban undated one possibly from Parthian times – note the two leopards. 2. A classic Greek stele depicting Athena somewhat matches

3. a stele (3000 BCE) from Ancient Egypt and in honour of first-dynasty Queen Merit-Neith ('Beloved of Neith'); the goddess' emblems (X) can be clearly made out – significantly, there is controversy whether it depicts a bow and arrows, or a weaving shuttle.

The realm of a spider-like goddess stretches into Africa, where the spider Anansi features as a trickster, and where the connection between heaven and earth, even the nature of the Supreme Being herself, is often presented as Spider-associated. Such a distribution is a sign that in the Neolithic (when weaving and spinning found an origin) North-eastern Africa and West Asia were in many respects continuous cultural regions, forming some sort of Extended FertileCrescent (a notion I first introduced in van Binsbergen 1997), at various spots in which domestication of plants and animals took place. The same continuity informs the distribution of Narrative Complex 2-3.

Table	Afro-Asiatic		Dene-Sino-Caucasian	Niger-Congo	remarks ⁵	
of Nations	Hebrew ¹	Ancient Egyptian ²	Sino-Tibetan ³	Bantu: Central Bantu: Nkoya4		
Noah (Nuaḥ) ፲፲	'rest, resting place'	3h, 'placenta'; ⊜ 3ht 'horizon'; □ cf. the creator god Atwm □ god Atwm	Nu Wa, 女娲 primal (moon) goddess attested in Neolithic; only later paired to the male culture hero, first emperor and sun god Fu Xi 伏羲	(1) Nkoya (Zambia) creation myth: 'The original mother became fertile and produced the entire world from her womb'; (2) Nankuwa ['Mother Nkuwa', no clear etymology] appears in a pivotal place as an apical ancestor in mythical Nkoya royal genealogies	Of Noah's three sons, Šem's name is puzzlingly meaningless if interpreted (which is probably unwarranted) as Hebrew: 'Name', i.e. 1) an abstract cosmogonic/divine principle (throughout Israel's tradition), 2) the third celestial item after Sun and Moon, i.e. 'Stars' (widely represented as leopard's spots)	
Japhet יָפֶת	'open- ness' (a popular etym- ology)	cf. the goddess Tfnt, 'spray'; equated with the Moon			Cf. Greek lapetos, 'hurrier' (Graves) = Moon (traversing the entire zodiac in a month, whereas the Sun takes a year); North	
Ḥam קם	'heat, sun, daylight'	Cf. Šw, 'the air god', equated with the sun (\$w)			Sun; South; Day; Nimrod, Ham's son but in a corrupt sequence; as 'Noon' (Karst), and as 'subduer of the leopard', Nimrod is supposed to have solar connotations	
Šem ਹੁਲੂ	'name'; cf. קהנה	Cf. rn 'name, person'; cf. the goddess 'Hand' assisting Atwm in his creative masturbation; humankind (rmtj)	ren (Modern Beijing Chinese; Old Chinese: nin) 人 'man, person'; Old Chinese rīn (modern Beijing ling 2), 零 'rain', universally with demiurgical connotations, and often (but hardly in China) with leopard connotations	Wene wetu wa limata lya Mvula ': Our kingship is from the drops (tears) of Rain; ka-mpulu = leopard	Cf. Gen. 1 ('mouth over water': 'And the Spirit of God moved upon [the face of] the waters. And God said,'), catalythic principle, demiurge, cf. leopard. Cf. Empedocles, whose enumeration of the 4 elements includes 'Nestis [Persephone] who moistens the mortal springs with her tears'	

Table 5. Some of the reasons why I believe the Narrative Complex of the Primal Waters and the Flood to have East to Central Asian original connotations: Some long-range cosmologico-symbolic associations surrounding Noah and his sons⁴⁵

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⁴⁵ On these and closely related matters, also cf. the very extensive footnote to the entry 'frog' in Appendix II. [**Ultimately much of this material may be concentrated at this point in the argument**] The East Asian material yields a further possibly relevant addition: Fu Xi 伏羲 was the first of

Source: van Binsbergen, in preparation (a). References: 1. Strong ...; [German concordance 18..]; 2. Bonnet 19...; Gardiner 19...; 3. [Chinese paper 2002; Table of Babel ('Chinese characters'), n.d.; van Binsbergen, in preparation (a); 4. van Binsbergen 1992; 5. Graves 1962; Karst 1931a; [book Vorsokratiker]; van Binsbergen, in preparation (a). 6. In other words, it is almost as if an Israelite with access to hieroglyphic representations but unable to interpret them correctly in terms of the Ancient Egyptian language, had idiosyncratically attempted to interpret the 'mouth over water' hieroglyphic ligature, , not unlike the fantasies that attended the predecipherment contemplation of hieroglyphic script from Horapollo to Kircher

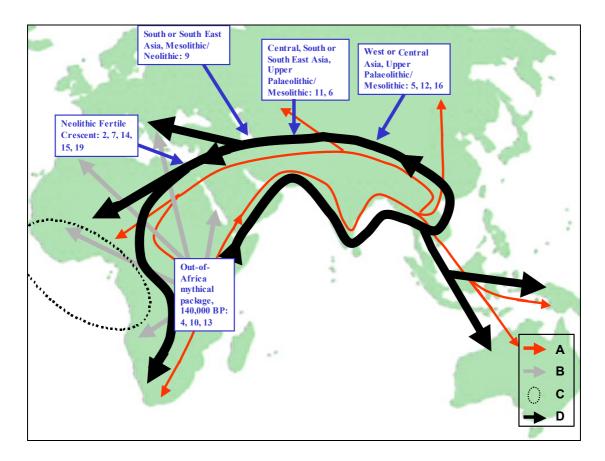


Figure 16. Summary of results: Preliminary situation in space and time of major Old World mythical complexes, in relation to the Out-of-Africa migration (c. 140,000 BP) and the Into-Africa return migration (from c. 20,000 BP)

in order to highlight the basic west-east-west movement, secondary spread and feedback effects have largely been ignored

missing numbers were discarded, see main text

- 2. The connection between heaven and earth after separation
- 4. The lightning bird (and the worldegg) 5. The mantis
- 6. The ogre

China's five culture heroes / kings, and the last one was Shun, Ξ . Bamboo is speckled in transsection, allegedly in commemoration of the tears which Shun's spouses shed upon his death, immediately before the Flood (could the flood be a direct, physical result of their crying?). Shun was succeeded by his minister of hydraulic engineering, Yu, Ξ , who not only tamed the floods (General_Zhaoyun 2005) but did so with Heaven's Ξ gigantic iron staff previously used to shape the Milky Way, and probably identical to Luwe's pole, i.e. the celestial axis.

- 7. From the mouth
- 9. The moon
- 10. The earth as primary
- 11. The primal waters and the flood
- 12. From under the tree
- 13. The cosmic snake
- 14. Fundamental duality
- 15. The spider and feminine arts
- 16. Shamanism, bones
- 19. The cosmogonic virgin and her son/lover
- A. Out-of-Africa migration and subsequent major migrations of Anatomically Modern Man
- B. Local spread of pre-Out of Africa mythical package
- C. Frobenius' 'pristine' Africa
- D. Out-of-Africa mythological package and subsequent mythological developments

8. MYTH AS RUDIMENTARY LOGIC AND AS THE FIRST ARTICULATE LANGUAGE: THE SIGNIFICANCE OF MYTH IN THE EMERGENCE OF ANATOMICALLY MODERN HUMANS

8.1. Myth not an epiphenomenon but a conditio sine qua non

This may be the point in my argument where I should articulate what I think to be the real significance of cosmogonic myth in the history of Anatomically Modern Humans. One could think of myth as an epiphenomenon, a narrative by-product to embellish the otherwise drab and dangerous existence of humankind in the African Middle Palaeolithic, c. 200,000 BP, and to test out and further exercise faculties of complete thought and thus of articulate speech – faculties as may have been acquired in other contexts and through other means, than myth. Instead, I would invoke Cassirer's view of myth (recently reiterated and developed in Donald 1991 [add ref Cassirer]), according to which myth has been the central constitutive element producing thought, language, and (cf. de Heusch 1988) the rallying of more or less enduring human communities around these achievements, in the first place. In other words, the possession of myth might well be considered Anatomically Modern Humans' claim to survival advantage of other hominids of the Middle Palaeolithic, including less developed forms of Homo sapiens, such as Homo sapiens neanderthalensis.⁴⁶

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⁴⁶ Although with regard to Neanderthaloids we must be very careful. There is extensive evidence (though unavoidably contested) that they buried their dead, used skins as clothing, made musical instruments, emulated and venerated animals, and there are even claims that they made star maps. [add refs] . This makes it thinkable that at least some of the cultural achievements of Anatomically Modern Humans in fact were borrowed from Neanderthaloids, which, in view of my overall argument in the present paper, suggests that the latter, too, had myths. Discussions as to anatomical indications of articulate speech in Neanderthaloids have been inconclusive. Geneticists are increasingly in agreement that Anatomically Modern Humans did not directly descend from Neanderthaloids. The latter's place in the global history of human culture, and mythology, invites much further research and thinking.

8.2. Myth as providing rudimentary logic, and a world view

More can be said, perhaps, about the specific conception of cosmogony that appears to be implied in the mythical orientation of Anatomically Modern Humans from the very beginning, in Africa 200,000 BP. Table XXX below elaborates what, of the twenty Narrative Complexes identified in mythological material from historical sub-Saharan Africa, can be reconstructed as arguable part of the original Out of Africa package.

The values I propose in the following table are extremely tentatively and merely for heuristic purposes. Some of these values I have already worked out in greater detail in my various instalments of research in progress on leopard-skin symbolism. add refs | This particularly applies to the entries on 'texture' and 'colour', and the interpretation of the logical values in terms of Deleuze's différence and répétition. My interpretation in terms of Hegel's three-step dialectics from thesis via antithesis to synthesis emerged as a result of the present argument. It would take a formerly Marxist anthropologist turned philosopher, like myself, to smuggle the Hegelian dialectics into the Out-of-Africa package, but the process of data collection, analysis and interpretation that brought me to that conclusion is methodologically sophisticated, and in these post-Marxist times, and having myself no special predilection for Hegel, I have no special axe to grind here: considering that most philosophers today rightly believe that Hegel's dialectics is a thoroughly antiquated tool, it is perhaps not a compliment to include it among humankind's oldest discursive apparatus; but here it is. The entire column on logical values is due to a very stimulating comment made by my Australian colleague [add name] at the Kyoto conference where a first version of this paper was first presented: as a linguist, he not only expressed his enthusiasm for my approach, but suggested that the next obvious step would be to indicate the logical and semantic operations involved in the earliest Narrative Complexes that made up the original Out of Africa package. This is what I did, with some confidence, in columns V and IX. It appears to me that the proto-logic implied in just these three, presumably earliest, Narrative Complexes amounts to a fully-fledged logical tool-box (not necessarily to be viewed in Hegelian terms) where Anatomically Moderns Humans found rather adequate initial equipment for the subsequent development of complete thought and articulate language. While my Australian colleague did not quite go as far as suggesting the possibility of linking these logical operations to specific lexical values, the circumstantial evidence contained in Tables XXX [all these XXX need to be altered] remotely suggests the possibility of proposing at least a lexical item for 'earth' as the pivot of Narrative Complex 10, and this tempted me to look for clues towards the other two lexical values. Some fragmented evidence for these I present in Tables -XXX and in Diagram XXX, below, but my method of comparison between linguistic (macro-)families is admittedly very impressionistic and eclectic, and these lexical suggestions must be taken with a fair pinch of salt. The graphic and numerical values proposed (columns III and IV) are straightforward and have parallels in various ancient cosmologies, e.g. the Pythagorean and the Taoist.

The arbitrary order in which these Narrative Complexes are numbered, show how they emerged from the examination of the over 200 individual mythemes in our data set, and in our subsequent bundling of these mythemes into twenty Narrative

Complexes. The detailed argumentation in Table 4 suggests little in the way of a preconceived idea as to the existence of a pre-Out of Africa mythical package, let alone the details of such a package if any: the identification in space and time of each Narrative Complex is argued separately and in detail, and if the analysis had indicated that as far as myth is concerned the Out of Africa must be considered empty, I would have accepted that conclusion cheerfully. However, the present actual outcome is much more exciting. The Out of Africa mythical package already contains the three elements that would much later, in the 'What is in heaven' Narrative Complex, feature as some primal sort of trinity. However, in the Out-of-Africa package only two elements are celestial: the Lightning Bird (and its World Egg), and the Cosmic / Rainbow Snake, both hovering over the Earth which is not only terrestrial, but primary. So, in fact, the transformation of the original Out-of-Africa package to Narrative Complex 3 (What is in heaven) does seem to amount to the kind of upward turning of the human gaze postulated above.

We note here that the trinitary composition of heaven, which is to emerge much later with Narrative Complexes 2-3, is already *in nucleo* present in our reconstructed Out-of-Africa mythical package. But at this stage the human mythical gaze is not yet primarily turned to heaven: it starts from earth, turns to the sky only if started by the spectacular sight of lightning, and ends in a compromise between earth and heaven, in the rainbow. Needless to add that this is the Noahite scenario in Genesis 6-9.

Here, as throughout this argument, we encounter a difficulty which was expressed by my friend Steve Farmer during the Kyoto conference where the present study was read: are we not dealing with a period that is far too remote to expect us to arrive at methodologically sound specific reconstructions of ideas and images? In other words, are we not simply in the never-neverland of wishful thinking? The oldest documentary attestations of any myths are less than 6,000 years old, the oldest known graphic representations scarcely ten times that age (Figure XX) still only half the period we try to cover since the Out-of-Africa exodus. The problem is genuine, but it is not fundamentally different from inferring, from distorted light and radio waves that reach us on earth thousands or millions of years after their emission from distant stars even galaxies, the astrophysical and chemical composition of these remote bodies and the dramatic processes of formation or decay they may go through. Or, to stay closer at home, not very different from inferring, on the basis of the decoration of their boats and from seafarers' beliefs and apotropaic practices in historical times, the symbolic culture of the Sea Peoples in the Late Bronze Age, and trying to derive clues as to their ethnic and linguistic affiliation on that basis [add ref] - or any other attempt to conduct 'mental archaeology [add refs, Renfrew]. All empirical scientific knowledge depends on a procedure of generalisation, by which we infer from that which we can know directly, that to which we have no direct access. Such generalisation is always precarious, never produces full and certain knowledge, and always includes the possibility - nay, the certainty - of error. Whether the outcome of such inference are defensible and can be taken seriously by the specialised scholarly forum that the organised body of a scientific discipline constitutes, depends

1. not on the ultimate truth of such an outcome (for such truth is not directly known to us, and moreover it is inherent in the process of science that today's truth is tomorrow obsolete, incomplete half-truth),

- 2. but on the acceptability, to the specialist forum, of the specific method of analysis, which therefore should be as explicit and as clearly stated as possible
- 3. with this proviso that the forum tends to the perpetuation of established paradigms, and therefore is inherently more conservative than would be conducive to the progress of science; new and better insights invariably go through a phase where they defy (2) from a minority position, and have to win over the forum by new data and new lines of argument.

Sophisticated and explicit methodology is the only license for extending the boundaries of established scientific knowledge, exploring into the unknown, and beginning to think the as yet unthinkable. In principle, there is a strong parallel between bridging, as astrophysicists, the spatio-temporal gap that yawns between us and the stars – and bridging, as mythological archaeologists, the gap between us and the Anatomically Modern Humans of the Middle Palaeolithic, before the Out-of-Africa migration. (And let us not forget that, despite this parallel, there is also a huge difference: as Dilthey has argued at length, and as Weber has subsequently introduced as a canonical point in the social sciences, there is a fundamental difference between the natural sciences, whose subject matter we cannot relate to intersubjectively, and the human sciences, where we try to understand our fellow human beings even though from a different place and time. 47 But Steve Farmer continues to have a very strong point: methodology is no license for wishful thinking. We must admittedly be very careful if we wish to project, onto reconstructed myths and associated through of the Middle Palaeolithic, myths such as that of Noah, whose first attestation is from the Early Iron Age. At best we can surmise parallel themes and narrative structures; it would be ludicrous to postulate that actually the same myth survived in essentially its original form through 140,000 years.

One important methodological requirement for an argument extending over more than 100,000 years is that a specific mechanism is indicated that might convincingly account for the proposed continuity. This requirement is met when we propose that *rites*, especially initiation rites at puberty and associated with initiation into the earth cult, date from pre-Out-of-Africa time, and have always functioned as the context in

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⁴⁷ Meanwhile, let us not pretend that the difference between us and the non-human world is as absolute as neo-positivist social science methodology often makes it out to be. On the basis of illuminous though differing predecessors such as Schopenhauer, Marx, Nietzsche and Freud, postmodern thought (Foucault, Deleuze & Guattari, Lyotard) has sought to explode the idea of the autonomous knowing and acting subject as the central constituting myth of North Atlantic modern civilisation. On the other hand, the phenomenological movement (e.g. Husserl, and especially Heidegger) has sought to explore the extent to which our respectful encounter with 'the things', with the world, is constitutive of our human existence, in such a way that things, in their mystery of materiality, both confirm our own sharing in Being, and threaten it in their parallel, unfathomable existence (cf. van Binsbergen & Geschiere, in press [add ref]). A third contribution to this unsettling of the object-subject juxtaposition has come from quantum mechanics, which has done away with the idea of physical characteristics existing sui generis, and instead sees any construction of empirical knowledge, any measurement, indeed any form of physical existence, as produced by the encounter between the observer and the world. All these considerations inform my own position as a mythologist who is aware that the only serious study of myth is that which is aware of the fact that the outcome of such a study can only be another myth – but on the understanding that myths, far from being necessarily untruths, are expressions by means of which humans shape their life-world (van Binsbergen 2003b).

which mythical contents were stored, managed and retrieved in essentially unaltered form. As I argued already in 1981:

'Among other things, religion seems to be a means for people to expose themselves to their collective history in a coded, de-historicized (fossilized?) form. And the scientific study, in other words the decoding, of religion is an undertaking which, among other disciplines, belongs to the science of history, not so much because religious forms have a history, but because religion is history.' (van Binsbergen 1981: 74). [do nog: alle aanhalingstakens S+R]

The continuity between Figures XX and XXI below suggest that plausibility of such an argument.⁴⁸

An additional but much more controversial point is that we do not know to what extent symbolic forms, if retained by a human group over a sufficiently long time (and 140,000 years is not a short time, even by human evolutionary standards), may somehow become hereditary, as part of some 'collective unconscious'. The hereditary nature of such collectively managed symbolic material has been part of the Jungian theory of myth and symbolism, but it is precisely because of that assumption that Jungian psychology has met with bitter opposition especially in the United States (cf. Wilmsen 1993, 1995; Noll 1994, 1997). Once again, failure to comply with accepted, neo-positivist paradigms of a discipline or a set of related disciplines is no reason to totally discard an idea, but it is certainly a reason to move with the greatest possible caution. Therefore heredity is to be accorded a much more hypothetical and secondary position, as compared to ritual enshrinement, as a possible explanation of the proposed continuity of certain myths across tens, even hundreds of thousands of years.



Figure XX. [**change number**] In 2002 in Blombos Cave, South Africa, excavators discovered this artefact with a zigzag pattern in red ochre stone, over 70,000 years old, South Africa; after Henahan 2002.

Considering both the colour and the motif, this is quite possibly a depiction of our Narrative

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⁴⁸ The literature on African initiation and the associated myths is extensive. A most arbitrary minimum selection includes: Ahmed 1996; Mve Ondo 1991; Rasing 2001; van Binsbergen 1993; van Binsbergen 2003; Vansina 1955; Zahan 1960. For Northern Ghana, Jack Goody contributed his Bagre studies to this corpus, which have since been taken up by others. Cf. Goody & Gandah 2002; Goody 1972; McCall 1974; Tengan 1999.

Complex 4, the Lightning Bird.⁴⁹



Figure XX. A identical pattern to the Blombos one displayed in one of two or three of sacred string figures managed in the Nkoya female puberty rites, Nkeyema, Kaoma district, Zambia, 1978.

These rites are strictly controlled by senior women. The figures are secret, and only by making substantial payments could I, as a male researcher, gain access to this and other information on the rites in 1978. Finds like this make it very likely that initiation rites served as a context to preserve the mythical contents of the Out-of-Africa package.

I suggest that these three elements (earth, lightning, and rainbow) were highlighted in the Out-of-Africa package, not because they were of such absolutely vital importance to the material survival of early Anatomically Modern Humans 140,000 years ago, but because – in Lévi-Straussian fashion – they were so extremely effective *to think about*. As I set out in column V of the following table, these three items together constitute all one needs to construct a rudimentary but complete logic. Meanwhile we note that the upward turning of the gaze is not the only transformation between Narrative Complexes 10-4-13 as (presumably) contained in the original Out-of-Africa package, and the Narrative Complexes 2-3: Connection between Heaven and Earth, and What is in Heaven. After making the round across tens of thousands of years, and from Africa to South East Asia and back, 'the Earth as Primary' has given way to the celestial Virgin Mother Goddess, the Lightning Bird has become her Son the Demiurge, and the Rainbow the latter's adversary. Yet the underlying scheme has remained remarkably recognisable.

I	II	III	IV	V	VI	VII	VIII	IX
			propo	sed associated	values			
Narrat- ive	Visual representation	graphic	numer- ical	logical	texture	colour	lexical (extre-	semantic

^{49 [} add note on red ochre in Palaeolithic use]

77

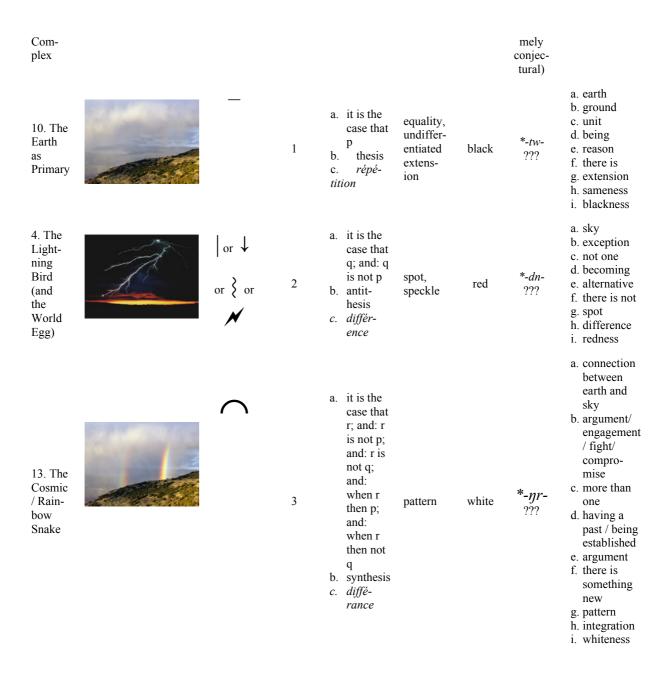


Table 6. The reconstructed mythical contents of the Out of Africa package, 140,000 BP, with conjectured visual, graphic, numerical, logical, colour and lexical values. ⁵⁰

⁵⁰ For the originals from which the images in this column have been adapted, I am indebted to I am indebted to © Perfect Vision Graphics 513-233-7993, at:

http://lynx.uio.no/jon/gif/nature/lightning4.gif, for the lightning image; and to [give sources]⁵¹ As indicated in a footnote above, on the themes of the flood and the primal waters, I postulate that these themes are younger, by perhaps five millennia, than shamanism; but this hypothesis is based of a number of assumptions concerning periodisation that might not survive closer analysis.

8.3. Groping for the first lexical items to be associated with the mythical contents of the Out of Africa package

In the course of the last decade, and spurred on by the successes of population genetics and the Out of Africa hypothesis, comparative linguists have boldly tried to make progress towards the reconstruction of 'the Mother Tongue' – the putative first language spoken by Humans. While I lack most of the specific skills required to join that particularly exciting form of research, my own research has, in recent years, brought me to suspect the existence of a number of lexical constants across linguistic macro-families, e.g. the lexical designation for 'speckledness, leopard', and that for 'earth, ground'. The latter is of course of great importance: it relates directly to our Narrative Complex 10, one of our serious candidates for inclusion in the Out of Africa mythical package. Table XXX sums up some of the relevant evidence.

Khoi-San	Dene-Sino- Caucasian	Austro- nesian	Nostratic			Niger-Congo
'person' in the following reconstructed <i>Proto-</i> languages	proto-Sino- Tibetan	Proto- Austro- nesian	Afro-Asiatic: Semitic: biblical Hebrew	Afro-Asiatic: Ancient Egyptian	proto-Indo- European	Proto-Bantu
Central Khoi-San: *khoe Khoikhoi: *khoe West Central Khoi-San: *khóe East Central Khoi-San (Taa): *ta^*, *tu^* North Khoi-San: *žù N.B.: 1. these are not loans from neighbouring Bantu/ Niger-Congo; N.B. 2. Central *kh- might be transformation of South *t-, North *z-)	*dōlH, Chinese: 底 *tōj? 'bottom', 柢 *tōj? root, base'; Tibetan: mthil bottom, floor; the connection with 'human', and with this entire complex, is hypothetical	*-taw, 'human' (Adelaar 1994)	In Gen. 4:15, God 'set a sign' for Cain, the first fratricide; my reading (cf. Nuer leopard-skin chief and North African saints, both of them offering sanctuary through their association with the earth) is that Cain was offered immunity from blood feud through extending to him a special relationship with the earth	13, 'land, ground'; \(\overline{\overline{\pi}}\) 13wy (dualis), \(\overline{\overline{\pi}}\) 'the two Lands, Upper and Lower Egypt'	*nt-, 'under', 'underling', proposed (Ode 1928) as etymology of Ancient Greek anthrōpos ('human being') and Athēna (as underworld goddess)	the eponymical proto-Bantu root —ntò (Guthrie no. 1798; Meeussen: —ntu) 'human, person'

a tau - shaped (! is that letter name in itself part of the long-range lexical complex described here?) sign, ancient form: +, is widespread (e.g. as a potter's mark) throughout the Old World (also in Niger-Congo and Khoi-San speaking Africa) as a sign of the earth, almost everywhere conceived as having four corners in reflection of the combined symmetry/asymmetry (left/right and front/back) of the human body

Table 7. Possible fragments towards the reconstruction of long-range ramifications of a putative lexical element *-tw, 'earth, ground, groundling, human', as possibly associated with Narrative Complex 10 (the Earth as Primary) from very early on.

Sources: Khoi-San, proto-Sino-Tibetan: Tower of Babel n.d.; Egyptian: Gardiner 1994; proto-Bantu: Guthrie n.d.; Meeussen n.d.; proto-Austronesian: Adelaar 1994; proto-Indo-European: Ode 1927. The GSR numbers of the Chinese reconstructions cited are 0590 c and e (Karlgren 1957).

Grown rather bold with the apparent success of Table XXX, I believe we can go a few steps further, and provide reasoned suggestions (though no more than that) for the basic lexical items associated with the other two Narrative Complexes, as below.

Khoi-San	Dene-Sino- Caucasian	Austro- nesian		Niger-Congo		
Central Khoi-San: ""dlāba, 'lightning', Khoikhoi: "luru 'thunder';	ning', Tibetan Austro- Semitic: Ancient European hoi: Egyptian Hebrew		Proto-Bantu			
*dlaba 'lightning'; West Central Khoi-San: * ''tábé, 'lightning'; East Central Khoisan: 'debe, 'lightning'; South Khoi-San (Taa): ''gd' 'thunder'; * nū 'lightning' North Khoi-San: */nó, 'thunder'; *dll, 'lightning'	Modern (Beijing) reading: dian 4; Old Chinese reading: I(h)ins 'lightning' (GSR: 0385 m-n); and cf. Figure on *-tan-/*-dan-/*-dene-	data yet to be collected	no corroborating data; but cf. Figure on *-tan-/*-dan-/* -dene-	data yet to be collected; but cf. Figure on *-tan-/*- dan-/*-dene-	Old Indian: tanyati, Lat. tonare, Germ. donar, Thor 'thunder'; and cf. Figure on *- tan-/*-dan-/*-dene-	Guthrie 1967, Common Bantu, no.s 3089-90, 1853, 3875, 3942, 4113, 4546, 4577-8, 4591-2, 5129-30: tUtUm gung Ud, du-dum, dUm, kUlbal, bUdUm(o), dUdUm(o), kUng Ud(o) 'thunder'
considering the	natural sounds involved, co	orrespondence	across language families	may be due to onomatop	aeic convergence rather th	an to common origin

Table 8. Possible fragments towards the reconstruction of long-range ramifications of a putative lexical element *-tan-/*-dan-/*-dene- 'human being, people, red ones, that which was spawned by lightning', as possibly associated with Narrative Complex 4 (The Lightning Bird – and the World Egg) from very early on; cf. the diagram on the next page illustrating the same conjectural lexical item [add diagram no.]

sources: as previous table, and for Indo-European: de Vries 1967; van Veen & van der Sijs 1997; Common Bantu: Guthrie 1967.

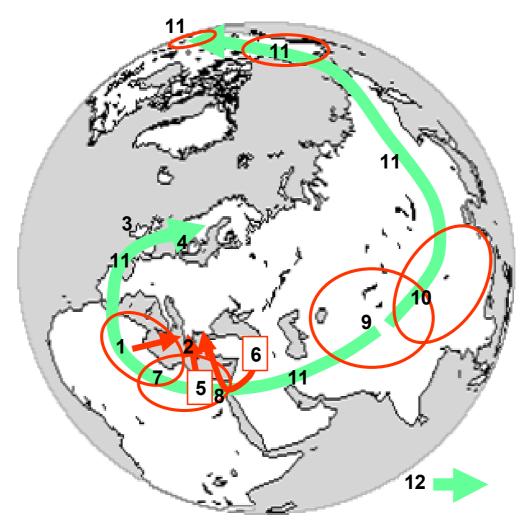


Figure 17. Possible fragments towards the reconstruction of long-range ramifications of a putative lexical element *-tan-/*-dan-/*-dene- 'human being, people, red ones, that which was spawned by lightning', as possibly associated with Narrative Complex 4 (The Lightning Bird – and the World Egg) from very early on

1 Primal Pelasgians
2 Danaos Danaoi as

2 Danaos, Danaoi as pre-Hellenic Pelasgians 3 Danan as primal people in Ireland

4 Danes (Scandinavia) 5 Danaos migrations, leading to Egypto-Danaeans in the Pelopponesus, cf. 6 Hyksos migrations (identical to 5?)

7 Ta(/e)he(n)nu, Tamahu, (blond)
'Libyans' (Amazonian invasions
in 'Athens' not in Athene in
Greece, but meant is the *aith-Tehennu*, Libyans)
8 *D3nyn* on Egyptian monuments
referring to Sea Peoples
9 Pei-shu-*tan* / Poseidon / as
primal Turanic people / eponymic
ruler

10 Proto-Sino-Tibetan: *t(i)ă(H) /

*taj(H), 'red', as in Chinese: 赭 *tia?' red earth, red pigment' (cf. also 丹, Old Chinese *tān 'vermilion, red', GSR 0150 a-b); in view of possible attestation of dispersed Sinic elements in Syro-Palestine, possible link with

Adam \(\frac{7}{N} = \) 'redness, first human'; also cf. the *-tw complex as discussed in another table.

11 Na-Dene: \(dene = \) 'human being, people, flowing from Mother Earth'

Sino-Caucasian and Na-Dene constitute, with Caucasian,

Burushaski, and probably Basque,

the linguistic macro-family of Dene-Sino-Caucasian 12 Possible diffusion of the lexical complex *-tan-/-dan-/-dene*-'human being, people, the red ones, that which was spawned by lightning'; the continuity between Dene-Sino-Caucasian, Turan and (modern) Libya seems to corroborate Karst's theory (1931) of 'sub-Mongoloid' and 'Ibero-Aethiopian' migrations from South Central Asia

Khoi-San	Dene-Sino- Caucasian	Austro- nesian		Nostratic		Niger-Congo
Central Khoi-San: *thuru, 'snake', Khoikhoi: no corroboratin g data	proto-Sino- Tibetan	Proto- Austro- nesian	Afro-Asiatic: Semitic: biblical Hebrew	Afro-Asiatic: Ancient Egyptian	proto-Indo- European	Proto-Bantu
West Central Khoi-San: * thuru, 'snake', East Central Khoisan: thuru, 'snake', South Khoi-San (Taa): *//āhra, 'rainbow' North Khoi-San: no corroborating data	*řöŋ / *rök (~t-), Chinese: 龍 long 2, Old Chinese roŋ, 'dragon'; cf. S-T Protoform:	data yet to be collected	data yet to be collected	data yet to be collected	no general proto-IE root; however, cf. Latin ngare, 'to moisten'; Old English regn, Middle High German and Dutch regen, 'rain'; however, the rainbow is supposed to be the opposite of rain	gU~dU!, 'rainbow' (Guthrie, Common Bantu: 1967), whence modern forms such as ngoro, ngorongoro

Table 9. Possible fragments towards the reconstruction of long-range ramifications of a putative lexical element *-yr-, 'rainbow serpent', as possibly associated with Narrative Complex 13 (the Cosmic/ Rainbow Snake) from very early on.

sources: as previous table, and for Indo-European: de Vries 1967; van Veen & van der Sijs 1997. The GSR numbers (Karlgren 1957) are 1193a-e (龍), 0836 a-d (霝), 0100 a-e (雨).

Bringing together, in these exploratory tables, linguistic material from various language families usually considered to be, literally, continents apart, from the point of view of professional linguistics remains mere arbitrary and amateurish speculation as long as no correspondence tables can be presented that set out, in detail, how phonological forms in one language family are to be transposed to the other family, at the level of reconstructed proto-forms. Something of this comes within reach, merely as an invitation for further research, when we consider:

	(1)	(2)
proto-Khoi-	*gorob	*thuru
San		
proto-Sino-	*pre:9k)w s	*roŋ / *rok
Tibetan	1 / 1	
proto-Indo-	*prd, *prg	
European		
proto-Bantu		*gU-dU
meaning	speckled, leopard	(rainbow) / (snake)
sources	Argyle 19, 19, 19; Rust 1969; van	Guthrie 1967a, 1967b;
	Binsbergen, in prep.; Tower of Babel, Khoisan	Tower of Babel, Khoisan
	etymologies, Chinese characters and Sino-Tibetan	etymologies, Chinese
	etymologies	characters

Table XXX [add number] . Some very tentative correspondences between proto-Khoi-San, proto-Sino-Tibetan, proto-Indo-European and proto-Bantu

8.4. Cosmogony and African agency

The conjectures of Table XX are extremely provisional, and should by no means be mistaken for firm conclusive results. Meanwhile I am struck by the potency of the Narrative Complex of the Lightning Bird (and its Cosmic Egg) as the central cosmogonic element in the original Out of Africa mythical package: while the Earth, already in unproblematised existence, forms the point of departure (and in that sense we do not have a true cosmogony in the sense of very first origins), the condition of Being becomes dynamic when Lightning is introduced as the second element. Lightning therefore is cosmogonic par excellence, in the Out of Africa package, and presumably, by implication, at some increasingly overlaid and subconscious level, throughout the cultural history of Anatomically Modern Humans. Probably lightning is (with the related fire, birth/motherhood, and death) one of humankind's most potent symbols.

For the study of agency, especially in the African context, this has implications which I cannot quite oversee in the fireworks of discovery which the present argument entails, but which I must yet mention in passing. As we have seen, true cosmogony is a central feature of the mythical material of Anatomically Modern Humans, including those of Africa, whence it all came in the first place. The cosmogonic moment of Lightning, the flash of alternative, confrontation, affirmation of self, is the second step in the three steps that together create a rudimentary yet adequate logical apparatus. I suggest that the secret of Anatomically Modern Humans' success is that they have exploited to the full the cosmogonic potential implied in the Lightning image. They do not just live the state of Being, the world as given (as under Narrative Complex 10, 'the Earth as Primary'), but engage with Being in an attempt to create the world, to be cosmogonic. Not just Ancient Greeks, or Europeans, but all Anatomically Modern Humans emulate Prometheus in bringing the fire down from heaven in a constantly renewed cosmogony. In this general context we may perhaps pinpoint the charm of African life in the historical period in that it has retained so much of the cosmogonic inspiration of the moment, without emphasising to the same full extent the structure-building, endurance and compromise of the third step, of the Rainbow Snake. Every moment, every act in Africa is cosmogonic, is Lightning, is inchoate and world-creating, at the expense of enduring structures which have difficulty coming to life, and surviving. We must be extremely careful with this kind of mythical and stereotyping generalisations – are we not simply restating here the Biblical story of the curse of Ham, or of Canaan, and the non-canonical traditions, both in Judaism and in Islam, of Ham as the wizard, who sought to use Adam's bones in the Ark for magical practices, – another, or perhaps the main reason, why he was cursed? (see van Binsbergen in press, for references). However, what I wish to stress here is not the African incapability of sustaining structure (that may be largely due to the low carrying capacity of the incomparably ancient African soils, in many places eroded down to laterite), but the extremely high levels of African creativity and improvisation – a positive feature stressed both by the advocates of Negritude and African life today is still characterised by an ineffective imposition of the institutions of routinised transcendence (writing, the state, organised religion, and science), although on all four counts the 20th century CE has made significant inroads, which have been partly undone under the postcolonial state since the 1960s. And while the weight of routinised transcendence is nowhere in the modern world less felt than in Africa (hence the relative chaos and absence of structure of socio-political aspects of African life today; cf. Mbembe 1992, 2000), the initial cosmogonic fervour of lightning is everywhere present, enacted in every concept, every gesture, world and social act, more than anywhere else, again.

9. CONCLUSIONS: INTERPRETING THE EMERGING OVERALL PATTERN IN LONG-RANGE COMPARATIVE TERMS

9.1. Michael Witzel's proposal not supported in detail, yet proved to be extremely stimulating and productive

This conclusion needs to further comment, except to congratulate Witzel on his visionary insight.

9.2. Narrative Complexes in sub-Saharan African cosmogonic mythical material

A preliminary exploration of mythemes of latter-day sub-Saharan African provenance brings out a great many mythemes, many of which are repetitive in time and place. With all the reservations and sources of error attending such an exercise, these mythemes can be reasonably subsumed in just over a dozen Narrative Complexes.

9.3. The striking continuity between the sub-Saharan African, and the Eurasian cosmogonic mythical material

It is high time to discard (as comparativists like Frobenius and Baumann advocated already in the first half of the last century) the accepted view according to which the mythical material from Sub-Saharan Africa exists in isolation from the, much studied, mythical parallels across Eurasia and into the Americas. An examination of the Narrative Complexes constructed for the African material as under (1) shows considerable parallelism with Greek and Biblical mythical themes. This point is forcefully brought out in Appendix II, which sets out the relevant data as far as the cosmogonic mythical dataset from sub-Saharan Africa is concerned. And as has been stressed by exponents of Afrocentricity, especially and most vocally in recent years, there is much parallelism between the sub-Saharan African mythical material, and that of Ancient Egypt. Although Afrocentricity has often boiled down to Egyptocentricity,

it would be myopic to try and explain away the African/Egyptian parallels one-sidedly as paramount cultural influence emanating from historic Ancient Egypt upon the African continent; it is much more attractive to explain these parallels on the basis of the idea that both Ancient Egypt and sub-Saharan Africa participated in an ongoing process of myth formation, diffusion and transformation, going back in time all the way to the Out-of-Africa migration (c. 150,000 BP) and (inside Africa) even further, and stretching all over the Old World (and spilling over into the New World) – and also involving, among others, Ancient Greece and the Biblical world.

9.4. Witzel's Out-of-Africa proposal *grosso modo* confirmed: Overall match between the genetic, linguistic and mythical trajectory of Anatomically Modern Humans

Africa has been recognised as the continent with the highest level of genetic diversity, as befits (a) the cradle of humanity (at least 3,000,000 years BP), and (b) the cradle of Anatomically Modern Humans (c. 200,000 years BP); return migration back into Africa from Eurasia/Oceania has further contributed to the genetic heterogeneity. Africa's linguistic and cultural diversity is far more limited than its genetic diversity, due to a number of converging factors in the most recent millennia (the spread of Niger-Congo language family over almost the entire southern half of the continent; and the converging influences of Islam, Christianity, colonialism and globalisation). Witzel's (2001) claim of the existence of mythical parallels between

- a. sub-Saharan Africa, Australia and New Guinea that seem to have no counterparts in
- b. Eurasia/America

suggests that world mythology was already incipient in Africa prior to the Out-of-Africa migration, and that some of its early themes may have continued to percolate in the continent perhaps even right through to modern times. Eurasian return migration into Africa (from no later than 10,000 BCE: Khoi-San) will have brought into Africa Eurasian mythical themes developed in c. 100,000 years in Eurasia, to start on subsequent African trajectories. The heterogeneity of over a dozen Narrative Complexes, some more elaborate than others, can be plausibly associated in this overall history of genetic and cultural diversity in Africa.

9.5. Further refinement

This overall picture can be considerably refined and the continuity between 'pre-Out-of-Africa' Africa, Eurasia, and 'post-return migration' Africa argued in detail, once we have distinguished specific Narrative Complexes, and once we have designed a methodology (however tentative) to situate each Narrative Complex is time (and, often by implication, in space, along the overall trajectory)

A more precise picture of this association between specific Narrative Complexes and African genetic and cultural history since the Out-of-Africa moment emerges when, with the aid of complementary, multidisciplinary approaches from archaeology, linguistics, and anthropology, we attach a tentative dating to each Narrative Complex, as in Table 4.

9.6. What we gain: reconstruction of humankind's oldest traceable discourse

Thus we are able to provisionally propose a pattern for the history of Old World mythology extending over more than 150,000 years — thus further reconstructing humankind's oldest traceable discourse.

Of course, this is nothing but a first proposal, inviting theoretical and methodological criticism; alternative readings of the available material; the addition of much additional material both from Africa and from other continents; a careful assessment of whatever has been used, in this analysis, from such ancillary disciplines as genetics, linguistics and anthropology; and in general much more reflection and debate. Working at the absolute outer limits of knowable or reconstructible intellectual history, we cannot expect first trials to be convincing hits. But by formulating and circulating our first trials, we may mobilise the skills, knowledge and intuition of colleagues working in the same and adjacent fields – without which an exercise like the present one will never proceed beyond the realm of science fiction.

9.7. Humankind's oldest discourse philosophically sound

Far from revolving on mystifying stories that conceal the nature and complexity of reality and the causal processes that govern it, the mythical tradition of Anatomically Modern Humankind, as traced in the present argument, shows a persistent grappling with the fundamentals of Being, at a very high level of philosophical sophistication.

These are not recreational stories to be told by the fireside after a good day's hunting – they are the fundamental ideas that not recreated, but that constituted Anatomically Modern Humankind. One attractive theory of the constitution of early society (Cassirer, Donald) is that it is the recounting of myths that created both language and society. The mythical tradition explored here – and it encompasses the whole of humankind as we know it, and the seeds of all great religious and ideological systems as we know them – far from being a mere fantasy or pastime, may well have been Anatomically Modern Humankind's main instrument for competitive survival. The grappling with cosmogony implies a vision of reality in which all Being is essentially cosmogonic, all human life a challenge to participate in the cosmogony of Being, and all initiation, all ritual, all intimacy, all making, a reviving of the fundamentally cosmogonic nature of Being. Eliade was right in seeing myth as revival of primordial times, but he did not fully realise the extent to which such reviving was not simply a revoking an original state of Being, but an original Cosmogony as the fundamental

state of Being. This finds its emblematic expression in fire, and especially in lightning, as the reviving of the cosmogonic moment par excellence. With such a philosophy of being, a biological sub-species appears to be sufficiently equipped to conquer the world.

If the mythical Narrative Complexes summed up, and situated in space and time, in Table 4, summarise the main types, developments and relationship between humankind's myths, then they constitute the oldest discursive repertoire humans had at their disposal. This is the beginning and earliest development, not only of myth, but also of religion, science, and philosophy. It would be worth our while to spell out the underlying basic ideas in today's metaphysics, see what philosophical sophistication these myths were already implying, and compare the Narrative Complexes systematically with Egyptian, Chinese, Biblical, Graeco-Roman, Indian, etc. mythologies, and philosophies from these cultures. Such a comparison would make us aware of an amazing continuity in the intellectual history of Anatomically Modern Men across more than hundred millennia and across all continents – a finding that cannot fail to be relevant for today's globalised, but conflict-ridden world.

9.8. From modes of production to worldview, but also the other way around

Relating specific Narrative Complexes to specific modes of production is one of the central features of my dating methodologies; however, while a particular mode of production suggests a particular discourse (e.g. food production > knowledge of biological causality > Virgin Birth as cosmogonic trope) it is also conceivable for the relationship to work in the opposite direction, in the sense that a particular cosmogonic Narrative Complex may make a particular innovative mode of production thinkable in the first place.

Our dating of individual mythical Narrative Complexes is largely predicated on the idea that certain images are much more to be expected in the context of a particular mode of production; e.g. the idea of virgin birth as cosmogony presupposes a strong rational sense of beginning and linear time progress, and a detailed awareness of the causal link between conception, pregnancy and birth – insights which, if not really absent outside the Neolithic sphere of agriculture and animal husbandry, are at least indispensable for such a sphere to be engendered and sustained. However, myth need not always to follow the organisation of material production (as would be stipulated from a Marxist materialist point of view) – it is also possible that myths provide the conceptual and imaginary clues which then are subsequently explored and applied in the emergence of new modes of production, e.g. that a myth of speckledness and hence a fascination with grains and raindrops would help the thinkability and hence the mergence of agriculture, instead of the other way around.

All the same, it is not as if sustained logical thought only appears relatively late in the mythological history which the present study seeks to overview. In most respects, one is struck by the high level of logical reasoning implied in most of the Narrative Complexes. Of course, the Narrative Complexes were compiled by the present writer, and any suggestion of their level of rationality may be an artefact of scholarly

representation. Yet (somewhat contrary to the impression Witzel 2002 gives of what he distinguishes as the Gondwana mythical complex, which includes sub-Saharan Africa) concrete examples of illogicality are rare. The following could serve as an example of illogical treatment:

In the beginning everything was dark and there was nothing. It rained continuously on earth. When the rain stopped, Mawese regulated the waters in rivers and created the first people and everything else. He also instructed the people in the heart of agriculture and he created the snakes. Then Mawese married Muvadila and became the ancestor of all peoples. Finally he returned to the sky, whence he later issued a human couple with the first fire (Pende, South-Congo; items 93, 94 in Table XXX [add number]).

This story has a typical inconsistent time sequence: humans are created at three different moments of time; the creator marries a primal woman and becomes the ancestor of all people, whereas there are already people mentioned. Incidentally, the most striking parallel that comes to mind is not African/Gondwana, but the sequence of anthropogonies in Genesis 1f!

9.9. A note of caution to add to similar remarks presented in section 1.2

The overall picture emerging (Figure 5) is of an elegant but wholly suspicious simplicity, and the many different possible sources of error remind us to treat it as merely speculative, with perhaps some heuristic value

Table 4 sums up some of humankinds earliest mythical Narrative Complexes in their historical development, spatial distribution and interrelationships, to the extent to which traces of these Narrative Complexes can still be made out in a data set of latter-day mythical material from sub-Saharan Africa. The results are extremely provisional and must be regarded with the greatest reserve. The possible sources of error are multiple and considerable, e.g.:

- a. The data set may reflect the actual latter-day mythical repertoire incompletely (the bias in favour of cosmogonic myths already suggests so much),
- b. the identification of the Narrative Complexes may have been one-sided,
- c. their proposed situation in space and time is only very tentative and awaits reflection and criticism by the international scholarly forum,
- d. the Out-of-Africa premise on which the entire exercise is based was not with us twenty years ago and may be obsolete or radically rephrase within a few years
- e. On the empirical side, it is quite likely that certain myths that existed at some point in time during the 200,000 years that my analysis covers, never survived to be detected in the latter-day African material.
- f. It is also possible that somewhere along the main circular movement of Figure XX covering this entire period, mythical Narrative Complexes emerged outside Africa (in Asia and Europe) that never made it into our data set simply because they were not reflected in any sub-Saharan African myths. The latter risk however seems relatively small, given the amazing amount of overlap

between sub-Saharan African, Egyptian, Graeco-Roman and Biblical myth – yet a new round of positive and comprehensive inspection of the Eurasian mythical material in the light of the Narrative Complexes outlined in the present argument would be an obvious next step to take.

9.10. The spasmodic process of extensive continuity punctuated by specific moments of grteat conceptual change, presumably coinciding with the rise of new modes of production

To the extent to which the emerging picture may be taken seriously, it is suggestive, not of a constant flow of cosmogonic mythical innovation, but of a far more spasmodic process, where at a limited number of moments great conceptual changes occur, resulting in the emergence of new Narrative Complexes; it is tempting to try and identify these moments, and relate them to crucial innovations in the sphere of modes of production, the (probably concomitant) emergence of new linguistic (macrofamilies, etc. (cf. Table 5)

The process of Old World mythical development since the emergence of Anatomically Modern Humans does not seem to be a steady process with constant rate of growth and change. Rather, Figure 5 suggest long periods of steady continuity to be punctuated by a few relatively short periods of rapid innovation and transformation of the available material. Since the mythical material is at the religious, political and economic heart of historical socio-cultural formations, such periods of rapid innovation and transformation in the mythical domain must coincide with periods of major change in the demographic, productive, and socio-political domain. We would like to identify, in each case, the specific factors that triggered these changes. Figure 5 indicates a number of such moments, in the following sequence traversed both in space and in time, and proposed specific triggers that may have caused the intensification of the mythopoeic process in these specific historical periods. Since innovation in the linguistic field seems to have marked some of these periods, major language (super-)families are tentatively indicated. The emergence and relative success of new language (super-)families is likely to be subject to the same factors as intensification of innovation and transformation of the mythical corpus. Table

Context in	Narrative	Narrative		Proposed trigger	Tentative linguistic
space and	Complexes	Complexes			context
time		summarised			
Out-of-Africa	4, 10, 13	4. The	a.	The emergence of Anatomically	Proto-Human
mythical		lightning bird		Modern Humans as a biological	
package,		(and the world		mutation?	
140,000 BP		egg)	b.	Africa's soil carrying capacity,	
		10. The earth		even for hunting and collecting, is	
		as primary		the lowest in the world	
		13. The	c.	The emergence of myth as	
		cosmic/		constitutive of a new type of	

	ı	ı	T	_
? South or	4 ?	rainbow snake	human community: self-reflective, coherent, communicating, engaging in hunting and collecting, and creating coherence, through the narrative and ritual management of symbols, leading to articulate language If (c) is plausible, then the earliest phase in the overall process is in itself myth-driven No firm proposal, but the migration	? Proto-Austronesian
South East Asia, Middle or Upper Palaeolithic		lightning bird (and the world egg)?	out of Africa meant entering regions with much richer soils and richer vegetation; meanwhile the specific imagery of Complex 4 suggest rather a link with pyrotechnics (harnessing of fire) or improved bird catching, neither of which require leaving Africa	?
West or Central Asia, Upper Palaeolithic/ Mesolithic	5, 12, 16	5. The mantis 12. From under the tree 16. Shamanism, bones	The emergence of shamanism, associated with detailed naked-eye astronomy which was an asset to hunters (orientation away from home, seasonality) even before it became an asset to agriculturalists. More important probably was that the vertical worldview of shamanism, with the sdhaman's privileged travelling along the celestial axis to underworld and upperworld, created a politico-religious social hierarchy on which more effective forms of sociopolitical organisation could be based.	Proto-Khoi-San and Proto-Dene-Sino- Caucasian
Central, South or South East Asia, Upper Palaeolithic/ Mesolithic	11, 6	11. The primal waters and the flood ⁵¹ 6. The ogre	 a. The rise of the sea level at the beginning of the Holocene; b. there are indications that Central and South Central Africa was a major source of population outmigration in the period indicated, but beyond microliths and improved boats I have no suggestion to offer as to what innovation in the mode of production could have caused a population surplus 	Proto-Dene-Sino- Caucasian and proto- Nostratic
South or South East Asia, Mesolithic/ Neolithic	9	9. The moon	Kingship, star worship, human sacrifice as major contexts for socio- political organisation and surplus extraction	? (pre-Bantu?)
Neolithic Fertile Crescent	2, 7, 14, 15, 19	2. The connection between heaven and earth after separation 7. From the mouth 14. Fundamental duality 15. The spider and feminine	Neolithic food production through agriculture and animal husbandry; Neolithic arts and crafts such as pottery, spinning, weaving; male ascendance; complex society, the emergence of writing, the state, organised religion, and science; incipient metallurgy	Nostratic, especially Western Nostratic (i.e. proto-Afro- Asiatic and proto- Indo-European)

arts	
19. The	
cosmogonic	
virgin and her	
son/lover	

Table 10. Contexts of mythical innovation and transformation

9.11. The present reconstruction as application of the Narrative Complexes identified

If there is some essential continuity between humankind's oldest discourse (as tentatively reconstructed here) and today's dominant discourse of scientific discovery, it is a stimulating question to ask if the present, speculative and excessively encompassing argument has a prototype in any of the Narrative Discourses identified (perhaps in the Separation and Connection between Heaven and Earth, and – as an evocation of illuminating scholarly inspiration -- the cosmogonic imagery of the Lightning Bird and the Cosmogonic Egg

Above reasons were given why the Narrative Complexes identified in Tables 4 and 5 cannot be taken to exhaust the entire mythical repertoire of Anatomically Modern Humans through the millennia. On the other hand, if this set of Narrative Complexes constitute humankind's oldest forms of discourse, and if myths, philosophy and science of the historical period are in unmistakable continuity with this set of Narrative Complexes, then the question is justified as to which Narrative Complex is reflected in the present argument itself. I submit that in form and content the present argument somewhat appears to constitute, in modern scholarly trappings, an application, in the format of the Narrative Complex 2 (the connection between heaven and earth, here transposed as the initial state of Middle Palaeolithic African origins, and the final stage of current myths today), of the cosmogonic imagery of the Lightning Bird (and the World Egg): the latter containing the essentials for Anatomically Modern Humans's creation of world culture, the former representing the flash of insight and method that illuminates the initial darkness and brings it to life. These mythical Narrative Complexes may be more than 140,000 years old, but they continue to inform our thoughts the format of our intellectual products.