

African divination across time and space:

the typology, intercontinental connections, prehistory, and intercultural epistemology of sub-Saharan mantics

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ABSTRACT. The argument first dwells on the typology of African divination systems, with special emphasis on the forms and socio-cultural contexts (regionally, intercontinentally, and from a long-range historical perspective) of the Southern African four-tablet system as a major representative of the widespread family of geomantic divination systems. In the process, we will identify some of the most striking structural characteristics of sub-Saharan African mantics: their institutionalisation, boundary crossing (especially the intercontinental connections will constitute a recurrent theme throughout this argument), and logocentricity. Inspired by a neurobiological perspective, the study of the prehistory of African divination, however inconclusive, will offer us as a key to its wide-ranging continuities in historical times. It will also help us to pinpoint such central features of divination as may account for its ubiquity, its range of variation, and its success: notably its objectifying mediation between person and world, through verbal pronouncements based on more or less elaborate classification schemes informing a divination system's interpretative catalogue. In the process we will consider the divinatory forms of African hunter-gatherers in historical times. The prehistoric intercontinental ramifications of African divination (particularly involving China, North America, the Anatolia / Black Sea region, and Western Europe), viewed in a combined 'Out-of-Africa' and 'Back-into-Africa' model, will offer surprising clues to the origin and evolution of specific divinatory forms. Finally we discuss the intercultural epistemology of divination. Here the central puzzle is that African divination has been constructed by a global reductionist scholarship as mere make-believe, yet often appears deliver truths that may be more than just figments of the imagination and that seem to have a grounding in empirical reality; here we first state the mainstream solution affirming the quest for wisdom in a superabundance of clues whilst denying extrasensory knowledge; then offer a radical alternative inspired however by quantum mechanics.

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Acknowledgments. The present argument is a greatly revised and shortened version of the keynote address (cf. van Binsbergen 2005b, with extensive illustrations) I was privileged to deliver (parallel to that of the distinguished researcher of African mathematical systems Paulus Gerdes) at the 2005 Leiden international conference *Realities re-viewed / revealed: Divination in sub-Saharan Africa*, Leiden, National Museum of Ethnology, the Netherlands, 4-5 July 2005, conveners: Philip Peek, Walter van Beek, Jan Jansen, & Annette Schmidt. I wish to register my indebtedness to the following persons and institutions: the conveners; the participants, whose inspiring papers and discussions have considerably helped me to revise the present argument after presentation; the African Studies Centre, Leiden, the Netherlands, which over the decades has been a generous context for the research underlying the present argument; the Department of Philosophy of Man and Culture, Philosophical Faculty, Erasmus University, Rotterdam, the Netherlands, for providing, from 1998 onwards, a stimulating and critical environment in which I could explore the intercultural philosophical implications and dilemmas of my attempts, since 1990, at combining the role of North Atlantic social and historical researcher with that of a Southern African qualified diviner-healer (*sangoma*); the Netherlands Institute for Advanced Study in the Humanities and Social Sciences (NIAS), Wassenaar, the Netherlands, where I spent a year (1994-1995) as member of the Research Group on Magic and Religion in the Ancient Near East, working full-time on the present project; the Botswana National Museum, Gaborone (1994), and the Musée de Préhistoire des Eyzies de Tayac, Dordogne, France (1999-2000), for facilitating my detailed study of part of their collections; diviners and healers in various parts of Africa, who have trustingly shared expert knowledge with me and have subsequently welcomed me as a colleague; clients, and their communities, mainly in Africa but also in Europe and (via the Internet) in other continents, who have often entrusted their most pressing problems to me as a diviner-healer; colleagues and friends who lured me to the academic study of divination: René Devisch, Richard Werbner, Sjaak van der Geest, John Janzen and Murray Last. Finally, I am deeply grateful to the editors for their patience, generosity, and criticism.

1. Introduction

Divination is at the heart of many African societies, and increasingly at the heart of African Studies. Perhaps this is no accident. As Arnd Schneider wrote in 1993, citing the distinguished Italian historian Carlo Ginzburg whose transregional analyses (especially Ginzburg 1992) of Eurasian magico-religious practices greatly contributed (along with the rise of globalisation studies) to the recent revival of a diffusion perspective outside archaeology:

‘Ginzburg (1990)¹ argued in a classic article that the humanities in general, but anthropology, archaeology, and art history in particular, did not follow the Galilean paradigmatic shift of the natural sciences, but with their continuation of an inductive paradigm relate ultimately to ancient practices of divination.’

So we as contributors to the present collection may be caricaturised as diviners who, under the guise of the pursuit of anthropological science, use their divining skills to elucidate the nature and socio-cultural forms of African divination for a globalising (post-)modern audience. Little wonder that so many anthropologists, from Evans-Pritchard to Werbner, Stoller and myself, became practising African diviners themselves.

After pioneer approaches of about a century ago,² the middle of the twentieth century brought classic statements by E.E. Evans-Pritchard, William Bascom, Meyer Fortes and Victor Turner.³ Building on this solid foundation, a next generations added further ethnographic detail, comparative scope and further theoretical perspectives to the study of African divination, drawing from such highly diverse fields as epistemology; mathematics; discourse analysis; the transactional study of social communication; the transformation and localisation of cultural items as they cross temporal and spatial boundaries, negotiating between language groups, classes and ethnic groups in the process; religious studies; history, (para-)psychology; the science of literature; and the study of conjuring tricks.⁴ In the most recent decades also a number of impressive collective volumes have consolidated divination studies as a major subject within African Studies.⁵ The specialist fields enumerated above were also well represented at the Leiden 2005 conference, on which the present collection is based. My argument will not try to do justice to this complementary diversity of approaches, nor to the sheer diversity of African divination systems on the ground. I will concentrate on the main themes that I have pursued in the course of my own two decades of divination research:

1. the typology of African divination systems, with special emphasis on the forms and socio-cultural contexts (regionally, intercontinentally, and from a long-range historical perspective) of the Southern African four-tablet system as a major representative of the widespread family of geomantic divination systems;

¹ Original reference.

² E.g. Dennett 1906; Junod 1987, 1925, 1927/1962; Eiselen 1932; Coertze 1931; Dornan 1923.

³ Evans-Pritchard 1937/1972; Bascom 1941, 1969, 1980; Fortes 1940, 1949, 1966; cf. Fortes & Dieterlen 1965; Turner 1961, 1975.

⁴ Cf. Abbink 1993; Abimbola 1977, 2000, Abimbola & Hallen 1993; Adedeji 1970; Adler & Zempléni 1972; Bauer & Hinnant 1980; Beattie 1964; Bohannan 1975; Devisch 1985, 1991, 1994, cf. Devisch & Vervaeck 1985, de Boeck & Devisch 1994; Eglash 1997, 1999; Fainzang 1986; Gebauer 1964; Grindal 1983; Jackson 1978; Jaulin, R., 1966, Jules-Rosette 1978; Mendonsa 1982; Middleton 1971; Ogbaa 1992; Prince 1963; Rasmussen 1991; Sekoni 1992; Shaw 1985, 1991, 1996; Shelton 1965; Stoller & Olkes 1987; Edith Turner 2004; van Binsbergen 1995, 1996a, 1996b, 1997; Werbner 1973, 1989; Young 1977; Zeitlyn 1990, 1993.

⁵ Peek 1991; Pemberton 2000; Winkelmann & Peek 2004.

2. in the process, we will identify some of the most striking structural characteristics of sub-Saharan African mantics: their institutionalisation, boundary crossing (especially the intercontinental connections will constitute a recurrent theme throughout this argument), and logocentricity
3. study of the prehistory of African divination, however inconclusive, will offer us as a key to its wide-ranging continuities in historical times, will also help us to pinpoint (more than an abstract generalised definition) such central features of divination as may account for its ubiquity, its range of variation, and its success: notably its objectifying mediation between person and world, through verbal pronouncements based on more or less elaborate classification schemes informing a divination system's interpretative catalogue
4. and finally the intercultural epistemology of divination, in which the central puzzle is why African divination has to be constructed by a global reductionist scholarship as mere make-believe, yet so often appears to deliver truths that may be more than just figments of the imagination and that seem to have a grounding in empirical reality.

2. Varieties of divination in Africa in historical times

Both in Africa and worldwide, a dazzling variety of divination methods and systems has been recorded, and any attempt to treat divination more systematically, from the complementary perspectives of long-term history and intercultural epistemology, must begin with creating some order in this complexity at the descriptive level. The first distinction that suggests itself is the familiar one between

1. *'material' divination*, which involves verbal divinatory pronouncements triggered by the outcome of the manipulation (usually in intersubjective, collectively defined ways) of an object (that is usually not unique nor idiosyncratic but defined within the repertoire of a local material culture) serving as a *random generator*;
2. *'mental' or 'trance' divination*, in which no external material apparatus is being used, but the diviner (or an assistant, translating the diviner's otherwise unintelligible utterances) produces verbal divinatory pronouncements that introspectively rely – in ways *not* dictated by external, objectified and verifiable epistemic procedure – on the diviner's subjective impressions, usually attributed to non-human agencies or impersonal powers as locally defined;
3. *'psychomotoric divination'*, in which the diviner produces verbal divinatory pronouncements on the basis of specifically defined non-speech motor patterns (e.g. specific co-ordinated dancing movements) which, in the context of the divination session, are produced in the diviner or the client *in direct and more or less involuntary response to a variety of musical, olfactory or other sensory stimuli*; and finally
4. *'ominous and oneiric divination'*, in which the diviner bases verbal divinatory pronouncements *on the client's reports* concerning more or less exceptional conditions the latter says to have witnessed or experienced in an ordinary waking state, in visions and hallucinations, or in dreams; typically, such conditions are interpreted by a fixed, usually rather elaborate and intersubjective catalogue of meanings – the equivalent of the well-known omen repertoires of the Ancient Near East and South Asia, and of the dream manuals of Graeco-Roman Antiquity and

Islamic ‘secret sciences’.⁶

If divination is based on the motoric patterns of specific animals (birds, spiders, foxes), or of inanimate material phenomena such as clouds, drops of liquid, smoke, etc., we have in fact a rudimentary form of ‘material’ divination even though the random generator is not, or not entirely, man-made. In such cases, the random natural phenomena are usually framed within a specific man-made arrangement (a trench, grid, visor, container etc.) by which a manageable selection of clues is set apart from the rest of the non-human world, and subsequently interpreted by reference to a (usually oral) interpretative catalogue.

These four broad categories are not always strictly distinguished, but they may serve to guide us through the maze of African divinatory complexity.

In Africa, as in other continents, the varieties of *material divination* (1) include:

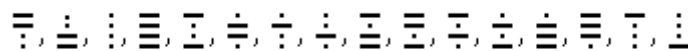
- Axe handle divination, and other forms of friction oracles especially in Central Africa, where the interpretation is based on the awareness of differential friction. The halting of the apparatus is usually interpreted as significant and affirmative, while the smooth uninterrupted movement is considered non-significant. Such a material oracle has a very simple interpretative catalogue, only consisting of the values ‘yes’ and ‘no’ – and the specific message the oracle delivers entirely depends on the nature of the input questions.
- A similar one-bit oracle that, likewise, can only yield the answer ‘yes’ or ‘no’, is the simple inspection of a chick’s intestines, as practices for instance among the Manjaco of Guinea Bissau and Southern Senegal; the fowl’s abdomen is dextrously cut open, and the gut is inspected for black spots – their presence have a negative implication, their absence a positive one.
- The ‘one-bit’ chick oracle is a form of extispicy, for which a rather more complex form has been described for Ethiopia (Abbink 1993), and which is also practiced in North African popular Islam (author’s field notes, 1968). Domestic animals are the typical victims, but also game animals, and even human beings, are eligible in certain regions and periods. Usually it is dedicated, as a victim, to a supernatural invisible agent that provides the rationale for the claims of divinatory veridicity. One of the oldest divination systems known from written sources, that of Ancient Mesopotamia from the third millennium BCE on, was initially entirely based on extispicy (later to be complemented, than supplanted, by astral divination i.e. astrology), with very elaborate interpretational catalogues defining a large number of intersubjective physical clues to be found in the intestines.
- We have already alluded to divination based on inspection of the tracks and other random effects that (typically unpleasant, wild) animals (fox, jackal, mouse, spider, crab) leave behind within a formalised, framed man-made setting

⁶ The artificial nature of this, and any other, classification is borne out by the case of bier divination, which (cf. Bastide 1968 with extensive literature) is common throughout West Africa and hence was taken – like so many African divination forms – to the New World in the context of the trans-Atlantic slave trade. In the Manjaco case of Guinea Bissau, a bier with the dead body is placed on the heads of two carriers, and these, in a trance-like state, proceed through the community until their movement is involuntarily halted in the presence of the person who is supposedly responsible for the death; the details of the killing can be ascertained by yes-no questions in which the same motoric pattern provides the answers (author’s field notes, 1983). Since the bier with the shrouded body forms an object, this is material divination (1), but it also involves trance (2), notably with decided psychomotoric aspects (3).

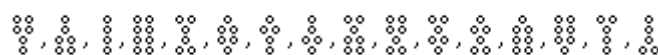
- Cleromantic or lot divination, in which identical lots (e.g. nutshells, pebbles, cowry shells *Cypraea moneta*) are interpreted according to the microdramatic patterns they form (cf. Werbner 1989): having been thrown, the tokens through their conventionalised association with specific implements, social groups, social roles, and aspects of the natural world, produce as it were a little drama or *tableau vivant*, standing for the essential elements, and visualising (through their spatial layout) their interrelations in the real-life situation that is the object of divination. The straightforward microdramatic imagery is invoked on the spot, has only relevance for the here and now, and thus does not need any elaborate coding procedures or interpretational catalogue. Or, alternatively, in a more abstract and formalised format, differently marked lots are to be cast or drawn, and the outcome is to be interpreted by a fixed interpretative catalogue of clearly distinguished meanings. The most developed of African cleromantic divination systems are those that belong to the *geomantic* family, which is extremely extensive both inside Africa and outside. Highly reminiscent of the Ancient Chinese *yì jīng* 易經 (*I Ching*, *Book of Changes*)⁷ system (Legge 1993), and sharing with the latter its reliance on powers of 2, and its notational system of n-grams consisting of n levels of broken and unbroken lines,⁸ the geomantic family received its most influential formulation in Southern Mesopotamia (Iraq) towards the end of the first millennium CE / in the fourth century AH, under the name of علم الرمل *ilm al-raml*. Originally the random generator was, not the cleromantic throwing of tokens, but the production of a random series of even or uneven indentures in the sand, with the aid of a baton, hence the Arabic name, ‘sand science’ In the early second millennium CE this name was phonetically rendered as *rambolion*

⁷ Wherever a proper name or term used in this argument was borrowed from a literate tradition outside the modern North Atlantic region, and is introduced for the first time, I have tried to use the original script – not in order to claim a linguistic competence I do not have, but as a reminder that any rendering in North Atlantic scientific prose is a defective, appropriative representation imposing upon the original. However, it is impossible to be consistent in editorial conventions, e.g. cuneiform cannot be thus rendered, and Greek proper names, usually in a distortive Latin / English rendering, are (by virtue of the construction of modern North Atlantic identity as Greek-based) hardly felt as foreign and it would be facetious to write them in the original Greek script.

⁸ In the European derivations of *ilm al-raml*, the apparent equivalent of *I Ching*’s unbroken line is equivalent to two dots placed horizontally next to one another and standing for ‘even’ in the geomantic system. Both in the Arabian and the European system *I Ching*’s broken line is equivalent to a dot, geomantically standing for ‘odd’. Whereas *I Ching* has, as its basic notation, 64 hexagrams (‘six-signs’), each consisting of six horizontal lines one above the other, with each line being broken or unbroken (in such a way that each hexagram consists of two superimposed trigrams – 八卦 *bā guà*: ☰, ☱, ☲, ☳, ☴, ☵, ☶, ☷, which have constituted central cosmological concepts throughout recorded Chinese history), geomancy has as its basic notation tetragrams (‘four-signs’) consisting of not six or three, but four superimposed levels, each a line or a dot:



which in the European notation became



The dominant conception of these foursome is in terms of a human body, with the top line representing the head, the second line the body, the third the legs and the fourth the feet. From Ancient China (Pangu 盤古) to the Ancient Near East (Tiāmat, Leviathān), Ancient Egypt (Osiris, with an echo in Ancient Greek Dionysus who was likewise torn to pieces by the Titans), and Ancient North Western Europe (Ymir) we encounter the cosmogonic myth – apparently often revived in regicide and other forms of torture and execution, also in Africa – of a primordial being who was defeated and whose fragmented being became the world as we know it. Could geomancy be a late echo of this idea, cast in the form of mathematical recursion as the basis for powers of 2?

ράμβολιόν in Byzantine Greek, and semantically conveyed as *geomantia* ('divination by earth') in the many Latin translations of treatises dealing with this divination system, which was to become a major divination technique in Renaissance Europe, and until modern times has survived in European popular culture.

ʿilm al-raml was essentially a form of adulterated astrology. There is, in all divination systems, and perhaps in all systems of knowledge production including Africanist research, a constant dialectics between procedural integrity and purity (which warrants valid – but arduously produced – knowledge in terms of the assumptions of the system), and the lure of easy and cheap methods, which may allow the diviner/knowledge producer to play a larger and more lucrative market with minimum intellectual and temporal investment. The eminent Tunisian historian Ibn Khaldun بن خلدون (1332 CE/732 AH – 1406 CE/808 AH), who took a great interest in *ʿilm al-raml*, explained the rise of that divination system, as adulterated astrology, from diviners' failure to conduct the complex astronomical calculations needed for a professional horoscope; the crucial and deceptive simplification being that (not for the first or the last time in the global history of astrology) a fall of dice or other form of random generation was taken as input in the divinatory process, and not the actual, ever changing, constellation of the planets and fixed stars in the sky above a specific location at a specific time. This type of adulteration is also endemic in African divination systems, both at the centre (with unskilled and unscrupulous diviners) and at the periphery of the grand systems, and would constitute a splendid topic of research in its own right.

In Africa the geomantic family has as its main exponents

- the *Sikidy* system of Madagascar and the Comoro Islands, based on 16 combinations whose essentially Arabic names still retain the unmistakable reminiscence of the late first millennium CE, Iraqi Arabian divination system of *ʿilm al-raml* from which it is clearly derived;
- the South Central and Southern African *Hakata* four-tablet system, producing (since all four are marked as different, and can fall facing up or down) $2^4 = 16$ combinations whose symbolic connotations are still reminiscent of Sikidy; and
- the *Ifa* system of the West African countries on the Bight of Benin: Nigeria, Benin, Togo). This system, based on $2^8 = 256$ named combinations, all incorporated, with their specific praises, in a coherent interpretative catalogue, is highly integrative of the West African worldview and ethics, hence it is understandable that many African writers have sought to identify a local, West African origin for Ifa,⁹ whilst others have sought to derive Ifa from North East Africa and the Middle East via some postulated trans-Sahara connection to the Bight of Benin,¹⁰ yet the most likely explanation, concurring with the evidence of trade contacts, boat types, musical instrument, divining bowls, cowries, stray Roman coins, is that Ifa is a local West African transformation of the Sikidy system, mediated not overland through the caravan trade, but along the Atlantic Ocean, by coastal seaborne trade, in the first half of the second

⁹ Cf. Kassibo 1992; Traoré 1979; Bewaji 1992.

¹⁰ Cf. Maupoil 1943b; Abimbola 1971; Turpin & Gleason 1992; *pace* Levtzion & Hopkins 1981, who show a map of trade routes in North-western Africa during the last few millennia, suggesting that such a connection is very doubtful.

millennium CE.¹¹ In West Africa, the cowry-based cleromantic system of Sixteen Cowries (Bascom 1980) is a form of Ifa but served by sixteen unordered identical tokens, instead of the (mathematically very different) ordered sets of two times four cowries or coins strung together to constitute a *kpelle* or divining chain.

- In addition to these highly developed, integrated and collectively administered geomantic divination systems, in the social and/or geographical peripheries of their distribution areas, and beyond, numerous minor, adulterated, fragmented geomancies are found (e.g. Itmann 1960), of which we shall encounter examples below when discussing the divination systems of African hunter-gatherers.
- A totally different variety of cleromantic divination is *basket divination*, in which a large number of heterogeneous tokens is swirled out of a shallow basket (South Central Africa), or, as is more typical in Southern Africa, cast out of the pouch or bag in which they are kept (hence my expression ‘mixed bag’ for such oracles.¹² The tokens may constitute unmistakable representations of distinct elements in the nature and the man-made world (standing for implements, animal species / totems / clans, social roles, human products such as corn and metal, natural phenomena such as lightning), and their interpretation is usually largely microdramatic.
- More restricted than the basket or pouch oracle, and more abstract and conventionalised as far as the interpretation procedure is concerned, with less reliance on concrete visualisation along microdramatic lines, is the astragal oracle, found in West, Central and Southern Africa; in the latter region, the ‘mixed bag’ oracle may in large part consist of astragals. The astragal or *talus*, a relatively large, elongated foot bone in quadruped mammals (usually ungulates like sheep, pig and roe are preferred), is used as a random generator / die for divination, gambling and gaming in many parts of the world (Africa, Asia, the New World,¹³ Graeco-Roman Antiquity, the Ancient Near East, Bronze Age and Iron Age Europe),¹⁴ nearly always taking four different

¹¹ After pioneering work by de Flacourt (1658), the recognition of the identity of *‘ilm al-raml*, Sikidy and Ifa has been the work of a series of scholars in the 19th and the first half of the 20th century, including Burton 1856 / 1987, 1864 / 1893; Steinschneider 1877; Ferrand 1891-1902; Ardent du Picq 1930; Trautmann 1939-1940; Hébert 1961; Maupoil 1943. Further work along these lines was done by Jaulin 1966; Skinner 1980; Faḥd 1965; de Sury 1981. I had the privilege of demonstrating, by a detailed analysis of the notational system and the symbolism informing the interpretative catalogues, that also the Southern African *Hakata* belongs to this series (van Binsbergen 1995, 1996a). My ongoing research on Indonesian / African connections, now being prepared for publication, and the inspiration from Dick-Read 2005 in this connection, have meanwhile convinced me of the specific geomantic diffusion and transformation trajectory as detailed in the text.

¹² Available descriptions include Junod 1897; Werbner 1989; Rodrigues de Areia 1985, and Turner 1961.

¹³ Possibly as a post-Columbian borrowing from the Old World, cf. Lewis 1988, although the divinatory use of bison astragals by Prairie Native Americans (Culin 1902/1975: 828f) has the ring of antiquity about it; for a depiction see Le Scouézec *et al.* 1965: 30. Below I will insist on the classificatory and dating importance of the parallels between African and North American divination. Such parallels, but also contrasts, laudably formed the topic of Ron Eglash’s Leiden 2005 conference paper, but his formal mathematical approach, which earlier yielded us a splendid book on African fractals (Eglash 1999), had, in the 2005 paper, only a very narrow ethnographic basis in North American divination. Yet his emphasis on recursion as the mathematical background of the emphasis on powers of 2 is very well-taken.

¹⁴ The archaeological, classics and ethnographic literature on this topic is extensive and dispersed, and its review is regrettably outside our present scope. As far as Africa is concerned, astragals appear in divinatory contexts in

possible values (i.e. 2^2) depending on which side the bone faces upward after being thrown.

Trance divination (2) is rather less common than material divination in Africa. Hammond-Tooke (1998, 1999, 2002) even makes a case for the exceptional nature of *sangoma* trance divination among the Nguni-speaking peoples (Zulu, Xhosa, Swazi, Ndebele) of Southern Africa, where their neighbours such as the Tswana, Pedi, Tsonga etc. have stood out in the ethnographic literature for very elaborate forms of cleromantic divination, either of the ‘mixed bag’ variety or in the form of four-tablet divination – an offshoot of the transcontinental geomantic family encompassing the entire Old World.¹⁵ In the course of the 20th century, however, cleromantic divination (especially the four-tablet format and the nutshell oracle) has been widely adopted by the *sangoma* trance diviners, as additional resources in the highly competitive therapeutic market. Considering my argument, below, concerning the more primitive for less ‘logocentric’ (Derrida 1967) nature of trance divination, such a shift towards cleromancy may simply be read as a giving in to the modernity-inspired insistence, on the part of the diviners’ clients, on an objectified, intersubjective method that is largely in line with the rationality of procedural knowledge production in the public sphere of South Africa’s highly urbanised industrial society today (cf. van Binsbergen 1995, 1996).

Apart from cleromantic divination as a somewhat alien technique, trance diviners – in Africa as elsewhere – may induce trance by the contemplation of mirroring surfaces for instance a bowl filled with water, or a modern manufactured mirror. Divining bowls are known from many parts of Africa more or less in continuity with their use in Ancient Mesopotamia, Graeco-Roman Antiquity, and Ancient China. Both in Southern Africa (especially among the Venda) and in West Africa on the Bight of Benin, strikingly similar types of wooden bowls are in use whose rim, adorned with several dozen of realistic or fantastic animals, suggest zodiacal connotations: not so much with Ancient Near Eastern or Graeco-Roman connotations (*pace* Davis 1955), but with Ancient China, where divining bowls with a rim of 3x12 zodiacal animals were in use in the middle of the first millennium CE, later to be replaced by the better-known twelve animals of the 12-year Chinese zodiac (Walters 1987 / 1989: 80).¹⁶ In recent centuries in Southern and West Africa, such bowls were

West Africa (e.g. among the Tallensi, Fortes 1966: 420), Central Africa especially the divining basket of the Chokwe and related peoples (Rodrigues de Areia 1985; Turner 1961), and in the Southern African ‘mixed bag’ oracle (Hammond-Tooke 2002; Junod 1897. According to the missionary to the Barotse, Yalla, *apud* Wiedemann 1909: 32, this type of divination also occurred in Barotseland, Upper Zambezi valley, although I never encountered it there during my extensive fieldwork since 1972; cf. Reynolds 1963. A map of the distribution of astragal divination in Southern Africa in: van Binsbergen 1996: 5, Diagram 2, cf. Wiedemann 1909: 28f, Figure 31. Wiedemann (1909: 37) claims astragal divination to have extended, from today’s South Africa, into today’s Malawi and Western Angola.

¹⁵ As we shall see below, my solution to Hammond-Tooke’s comparative puzzle is to suggest strong influences from Asia on divination in Southern Africa, taken there (a) by the Asian ancestors of Khoi-San speakers (recent genetic research has found them to be an African-Asian hybrid population some of whose ancestors still lived in West Asia less than 10 ka (*kiloyears*, millennia) BP (Before Present), as well as (b) by Buddhist and Hinduist inroads from South Asia (probably less than 1 ka ago), to which Nguni *sangoma* trance divination turns out to be considerably indebted.

¹⁶ It is beyond our present scope to consider, and reference, the several other indications of Chinese influence upon African divination and therapy, e.g. the ritual stance (to be adopted by clients during divination sessions) which in Chinese is called ‘sitting winnowing-basket fashion’ (坐箕 *zuò jī*), on the ground with legs rigidly stretched forward; evidence of knowledge of Chinese tortoise-shell symbolism (the famous 洛書 *luò shū* square, essentially a magic square) among South African diviners; parallels between the Chinese and the Southern African pharmacopoeia; and, in addition to the main text’s suggestion of adopting Chinese divination bowls, the possible transformation of Chinese nautical instruments notably the compass ladle and bowl, into an African divinatory apparatus.

pressed into service in the context of varieties of geomantic divination, but initially they probably served trance divination in their own right, and without the elaborate notational symbolism and interpretative catalogue typical of Southern and West African forms of geomancy (the Hakata and Ifa systems, respectively).

The most typical form, however, of African trance inducement for divination is through music (especially drumming) and dance, which may either lead to mental divination (2), or bring clients to a particular motoric response pattern peculiar to a particular, named possession agent as locally recognised (3). Music, especially if it is highly repetitive, is widely used as a vehicle to induce an altered state of consciousness, as a basis for diagnosis and healing. Music and dance not only induce trance but, through (3), are also frequently used as divinatory devices in their own right. The *cult of affliction* is a model found in many parts of Africa in historical times. The basic formula of such cults is that they deal with a spiritual disorder by formally, as part of a cultic process, acknowledging the possession spirit held to be responsible for the affliction; such acknowledgment means that the patient joins the cult, and receives the power to diagnose and heal other such cases; a chain reaction ensues, patients becoming doctors in search of other patients, which is the reason why these cults spread very rapidly over vast areas – like Tupperware and pyramid investment games in the North Atlantic today. In cults of affliction, being afflicted by a particular spirit usually is revealed in the following way: all locally recognised possessing agents are supposed to have their own music and dance, and when this varied repertoire is played consecutively at a cult session, undiagnosed patients respond only to one particular song and begin to dance – a form of psychomotoric divination.¹⁷

Despite the wide distribution of cults of affliction in Africa today, we may ask ourselves whether, in that form, they have sprung directly from African soil. On the one hand their non-logocentric orientation suggests great antiquity and tallies with stereotypical representations of African hunter-gatherers such as Pygmies and San. On the other hand, trance divination has a shamanic connotation which may be somewhat out of place in sub-Saharan Africa, in the sense that the stereotypical Asian and New World shaman is culturally supposed to travel from the here and now towards the supernatural and back, whereas in African trance and possession we have more typically the reverse movement, of a supernatural agent being supposed to take possession of a human being in the here and now, thus endowing the host with superior veridical divinatory powers, among other things.

More than sixty years ago, the idea of an intercontinental influx of shamanic elements from Asia was already launched by Frobenius (1954: 295f); he suggested six major ecstatic-cultic waves invading sub-Saharan Africa from the North and the East: *Jegu, Bori, Zar, Mandva, Pepo, Shave*, in the course of the second millennium CE, and he suggested that in regions where such cults failed to penetrate (especially a broad Atlantic coastal region between from today's Liberia and Namibia) figurative and plastic arts formed a major alternative expression to ecstatic religion. His observations tally with the general East-West movement of cults of affliction in South Central Africa in the nineteenth-century CE (van Binsbergen 1981), and are specifically applicable to the Southern African *sangoma* cult, for many of whose aspects I have recently argued a transoceanic, South Asian provenance (van Binsbergen 2003a: ch. 8, 2005). Like in large parts of Asia, and in North Africa, world religions (Islam¹⁸ and Buddhism) have formed the main vehicles for the spread of these

¹⁷ In this sense also African spiritual churches including the now dominant form of Pentecostalism in effect function as cults of affliction; as my colleague Rijk van Dijk stressed in his contribution to the 2005 Leiden conference, being seized by the Holy Spirit counts as a form of divination as well

¹⁸ In connection with the preponderance of figurative arts in the non-ecstatic refuges on the Atlantic, one is reminded of the ban on 'graven images' in both Islam and Judaism.

ecstatic cults, even though they stand in considerable tension with the learned doctrines of these world religions. Yet it would be rash to reduce the entire phenomenon of trance divination in Africa to such relatively recent transcontinental influences: ultimately they seem transformations of a shamanic pattern that is c. 20 ka old and that has by now attained a virtually global spread. Even though I propose (for reasons beyond our present scope) to situate the origin of shamanism, not in Africa but in extended Central Asia, major shamanic traits including trance divination are likely to have been introduced into sub-Saharan Africa, not just in the course of the last millennium with named cults that are still identifiable, but already in the course of the recently discovered Back-into-Africa¹⁹ migration, which from c. 15 ka BP brought genes that had evolved and mutated inside the Asian continent, as well as major cultural and linguistic elements from the same continent, back into Africa whence they had departed from 80 ka BP in the context of the Out-of-Africa migration.

Finally, especially in Central and Southern Africa *smelling out* is a common form of mental or trance divination relying on the diviner's trance-like subjective introspection (often enhanced by music and dance). Deriving its forms and local rationale from the hunter's skills, this form of divination is especially used to detect evil and witches.

3. Structural themes in African divination: institutionalisation, boundary crossing, and logocentricity

A number of structural aspects of African divination should be mentioned at this juncture.

In the first place, we should recognise the *highly institutionalised nature* of African divination. The diviner in Southern Africa is not just a marginal man or woman in the local community, ethnic group, nation, gender, age group etc. The diviner is also member of a profession. And although diviners tend to take great liberty in customising and personalising the knowledge imparted to them during their training, and of transforming it (often adulterating it!) according to their own tastes and needs, often there is a basic package managed by all diviners collectively in a particular community or region. With their long training, their formal graduation before an audience of diviners and often a general public, their continued allegiance to their original mentor or mentrix, their collective care for the initiation and graduation of novice diviners, African diviners often constitute a guild. Recognition as a diviner often depends on formal examination by the senior members of such a guild; then the novice diviner's knowledge of techniques, procedures and ethical codes is tested, while also the mentor puts his or her reputation at stake. Epistemologically this means that the procedures held to produce veridical divination are formalised, collectively managed and transmitted, objectified and intersubjective – they are a form of proto-science. Under modern conditions, these guilds may slightly reorganise themselves so that towards the state they can turn the face of a voluntary organisation registered and protected under modern national law. Such formalisation and (apparent) bureaucratisation also facilitates the integration of diviners in modern health services.

In the second place, we ought to recognise the great potential for African divination systems, as formal cultural systems with a high degree of standardisation and internal coherence, to *cross cultural, linguistic, social, ethnic and geographical boundaries*. The diviner, in his or her explorations and pronouncements, continuously transcend the here and the now, assessing the client's connections with distant places and toggling between present, past and future. In the South Central and Southern African context, however, *predicting the*

¹⁹ Cf. Hammer *et al.* 1998; Cruciani 2002; Coia 2005. A useful overview of the overall pattern of Anatomically Modern Humans' spread out of Africa is offered by Forster 2004.

future tends to be less central a concern than understanding the present in view of the past. Divinatory systems themselves (like other formal systems, such as writing, board games, music and its instruments) turn out to have travelled massively across cultural, linguistic and religious boundaries. In the process they inevitably undergo a measure what I have called *transformative localisation*, yet usually the outlines of the original, distant form and meaning remain somehow attached to the local final product. This means – and this flings in the face of classic anthropology’s holistic, presentist and localist tendencies – that usually the symbolic structure of a divination system cannot be understood merely, or even primarily, from a contemplation of the local culture. Being translocal, often, divination systems afford a distancing and relativising view of local socio-cultural structures and the typical dilemmas these produce, and as such they help to negotiate otherwise unsolvable contradictions. Often such translocal divination systems are also locally, emically recognised (or at least suspected) to be alien and to have come from afar, both in space and in time. I suspect such emic connotations of alienness, however implicit, constitute an important basis of the authority of such divination systems, and of the respect that is according them. Many diviners attend to clients from adjacent cultures, in a *lingua franca*. Diviners’ guilds often welcome cultural, linguistic and somatic strangers in their midst. *All in all, divination systems offer excellent examples of connections and transformation in time and space, in other words of proto-globalisation.* This feature is especially marked in the case of African geomancies, which turn out to belong to a transcontinental family of divination systems, and to bring out the great extent to which Africa (despite the excessive othering to which it was subjected on the part of the inhabitants of other continents in colonial and postcolonial times) has always been an integral part of a transcontinental, ultimately global, network of contacts, ideas and procedures for knowledge production.

Finally, we must appreciate (cf. Parkin 1979) the central and decisive role that articulated *verbal* pronouncements play in *all* forms of African divination, although in certain forms (cleromancy, especially of a geomantic nature: Sikidy, Hakata, Ifa) the encapsulation of the vicissitudes of the real world in a tightly integrated web of divinatory terminology is much more developed than in other forms. The geomantic family clearly bears the mark – indelible despite successive stages of localising transformation in largely illiterate African environments – of a distant, literate origin in relatively recent times, when the package writing–state–organised priesthood–(proto)science had already been firmly established (see below). All the other African cleromancies amount to elaborate, systematic verbal encoding of social and natural realities, where

1. the more or less man-made and more or less mechanical random operator produces the raw random outcomes, which subsequently
2. are coded as named and systematically defined configurations, often to be encoded in an elaborate notational system (such as that of geomancy, with its well-known tetragrams; cf. note 8 above)
3. after which each named configuration activates a specific, unique divinatory meaning as listed in the elaborate interpretative catalogue, even though under African conditions the latter mainly or exclusively exists in oral format.

Other, less elaborate forms of material divination may lack the explicit notational system, may have very simple random generators which may not even be man-made, and may have a very simple interpretative catalogue to match. *Yet all material divination systems share with the most elaborate geomancies their logocentricity: their sheer emphasis on verbal domestication of the human experience and of the non-human world.* Ominous and oneiric divination is very similar to material divination in its reliance on an elaborate interpretational catalogue (although it does not involve a random generator nor, in most cases, a notational system). It is only in trance divination and in psychomotoric divination that verbalisation and logocentric,

procedural rationality with the aid of an objectified, intersubjective system, are limited to a final pronouncement, whereas in these mantic forms the divinatory process itself is mainly non-procedural, personal subjective, unaccountable, uncontrollable, largely defying intersubjectivity.

I would therefore suggest that, typologically, trance divination and psychomotoric divination constitute more primitive forms of divination than material divination; and that such more primitive forms may be well at home in societies and modes of production (such as prevailed all over the world in pre-Neolithic times) that shun formality, lack writing, are therefore inherently immanentist, and in general have not installed the transcendent, virtualised word at the exalted central position it has taken in literate societies since the Ancient Near East 5 ka BP.

I will now seek to develop this emergent typology into an historical perspective, so as to further explore African divination in space and time, and cast light – if possible – on the prehistory of divination in Africa and beyond.

4. The prehistory of divination in Africa and beyond

4.1. Vroon's theory of the origin of divination

A highly interesting theory on the origin and prehistory of divination was presented by the lamented Dutch psychologist Piet Vroon (1992), inspired by Jaynes' pioneering ideas on the origin of consciousness in the breakdown of the so-called 'bicameral' mind (1976). Vroon's argument foreshadowed today's neurobiology approaches to socio-religious phenomena,²⁰ and may be rephrased as follows. Although since the emergence of Anatomically Modern Humans in Africa c. 200 ka BP (and their subsequent global spread as from 80 ka BP)²¹ no anatomically demonstrable changes have taken place in the human brain, a major development in the most recent millennia was yet the installation, in the brain, of a Central Control Unit (CCU) operating from the brain's language centres. Vroon argues that the ancient texts, and their accounts of self, identity, bodily integrity, motivation, action, and divination reveal that, as compared to today, the CCU was still demonstrably less developed *only a few millennia ago* (resulting in the inability to differentiate between veridical sensory impression and illusion), and he attributes the growth of the CCU to the impact of writing and reading. Divination, along this line of argument, would be very similar to reading, in that complex rules, highly relying on faculties of abstraction and linearisation, support

²⁰ Cf. Edith Turner 1986; Farmer c.s. 2002; Lisdorf 2007; Barrett & Nyhof 2001; Bering & Johnson 2005; Boyer 2001; Chao & Martin 2000; Gallese & Goldman 1998; Sperber & Hirschfeld 2004; Tremlin 2006; Winkelman 2004; Bednarik et al. 1990. This recent literature is in general more advanced than Vroon's theory from a neurobiological point of view, but (with the exception of Lisdorf which is unpublished, and of passing references in the Edith Turner piece which, however innovating, is now over twenty years old) it does not specifically deal with divination. I am indebted to my friend Steve Farmer for introducing me to neurobiology.

²¹ To unburden Vroon's theory from unnecessarily obsolete assumptions outside his own field, I rephrase it in terms of a more state-of-the-art human biology and archaeological perspective, which is rather more extensive and less Eurocentric than that available to Vroon as a psychologist venturing into prehistory on the basis of the – then already rather dated – literature at his disposal. For Vroon, like for many professional palaeoanthropologists up to the 1980s working with the concept of the *Human Revolution*, the breakpoint was the rise of Crô Magnon Anatomically Modern Humans in Europe, which was then put at 30-25 ka BP. Meanwhile specialists agree that the rapid penetration of Anatomically Modern Humans into Europe, mainly from the South East, started 40 ka BP, as a relatively late phase in the Out of Africa migration from c. 80 ka BP onward, and after Anatomically Modern Humans had arisen and culturally developed in the African continent from c. 200 ka BP.

intersubjective procedures of interpretation. Such divination is typical of an intermediate phase in the development of the CCU, where its formalised procedures supplant the (illusion of) direct communication with supernatural agencies such as was produced by a weak sense of self and only rudimentary separation between self and surroundings. Divination appears as proto-reading or imitated reading. Superficially this seems to be in agreement with the rise of divination in Ancient Mesopotamia in the third millennium BCE.

However, Vroon's theory is counter-intuitive for at least two reasons. In the first place, it suggests a fundamental, conspicuous difference between the thought processes of literate and illiterate persons. Such difference used to be a cliché of 19th century CE travelogues, but few modern, literate anthropologists working among illiterate hosts would flatly endorse it on the basis of their intensive and prolonged communicative experience in the field. And in the second place, Vroon's theory is historically implausibly shallow (his main empirical references are the Homeric epics and the Hebrew Bible), allowing for only a few thousand years to explain a socio-cultural phenomenon – divination – that is so widespread, globally, and whose local expressions are so infinitely diverse, that it should rather be considered tens of millennia old at least. The alphabetic scripts of the written redactions of the Bible and of Homer (middle of the 1st millennium BCE) were preceded by at least two and a half millennia of other forms of 'true writing' (as authoritatively defined by Gelb 1963) in Elam, Ancient Mesopotamia, Egypt, and China; and even, according to several specialists, by proto-writing from the Early Neolithic (9 ka BP) onward.²²

But despite these shortcomings Vroon has offered us major hypotheses whose further exploration may help us to elucidate the earliest history of divination:

1. divination as a mental activity is comparable to reading and writing, so we rightly stressed the logocentric nature of African divination
2. divination is a relatively advanced socio-cultural complex, somehow intermediate in a range between true procedural knowledge formation on healthy sensorial empirical grounds with the aid of intersubjective methods (such as in modern science), and the merging of (life-supporting) empirical soundness with hyper-subjective imagination under conditions of relatively weak self development, as we would postulate for humans during most of the several million years of their evolution to present times.

There should be no mistake about the crucial world historical impact of writing: writing was to be the chief ingredient in a package further comprising the state, organised religion, and science, and over the last five millennia this package has totally changed human society and the face of the earth. However, although Ancient Egypt, one of the earliest, most powerful and enduring civilisations of the ancient world, was located in Africa and displayed many African traits, and although the African continent contained major sites of early Christianity and of medieval Islam, yet prior to the 19th century CE writing remained peripheral to most of African life, and African cultures have excelled in orality including story-telling. In Africa, the formal divination systems with their elaborate interpretative catalogues, and especially the geomantic systems, somehow suggest a literate context of origin. Indeed, Jack Goody (1968: 25f) reminds us of writing and divination as unprecedented forms of magical authority in Africa transcending the pattern of local culture:

'The significance of writing varies widely among the societies discussed [in Goody's edited collection *Literacy in traditional societies*, from the Introduction to which this quote is taken] . But even among pastoral peoples like the Somali, even in societies long cut off from the mainstream of literate cultures, like the Merina of Madagascar, even in religiously very mixed areas, like the western Sudan, the book is an important feature of social life, because it provides a reference point for individual and social

²² Cf. Haarmann 1999; Gimbutas 1991; Li c.s. 2003.

behaviour, especially that kind of verbal behaviour we think of specifically as ‘symbolic’, magico-religious, mythopoeic or cosmological — though our given categories do us a great disservice here. So that when Hébert²³ offers us a “structural analysis” of divinatory systems in Madagascar and in Africa (...), he is pointing to certain features of a system of divination, crystallized in writing, that is carried out from Kano to Calcutta, from Tananarive to Samarkand, a “symbolic” system *that has little or no intrinsic connection with the myths, beliefs and categories of the peoples among whom they [sic] are found*. Even supposing that all the societies in question were equally committed to ‘orthodox’ Islam and acknowledged the Islamic elements in the system of divination (such as the use of the names of caliphs and archangels and the sacred names of God), many elements in the system (e.g. the 9-cell squares) have quite a different derivation, a much wider distribution, which makes them as much (and as little) an intrinsic part of specifically Gonja or Hausa symbolic structures as the mathematical theory of groups is of specifically Japanese or Belgian thought.’ Goody 1968: 25f; my italics

All this is predicated on Islam, world religions in general, and proto-modern statehood as based on writing, and does not offer a perspective on the remote preliterate past. I am tempted to both reverse and generalise Vroon’s inspiring argument, and to see divination not as the *result* of the impact of writing on cultures during the last handful of millennia, but as one of the *stepping-stones towards* writing, and as such typical of Anatomically Modern Humans, with (as compared to their humanoid predecessors and rivals) their general faculties of (a) articulate speech, (b) highly developed symbolism, (c) highly innovative technology, already in the hunting and gathering domain, and (d) complex social organisation. Not insignificantly, much early or peripheral writing is in a divinatory context. The corpus of Ancient Germanic and Celtic literature bears ample witness of the divinatory and in general magical purpose to which early scripts in North Western Europe (runic and ogamic) were put; the same point is made in Tacitus’ *Germania*, on the cleromantic divinatory practices of the Ancient Germans. Or compare Dos Santos (1901 / 1609), the first Zimbabwean missionary and martyr, put to death on the basis of four-tablet divination at a Southern African royal court where Islamic influence determined dress style as well as modes of divination administered by Arab / Swahili scribes, but which yet had remained largely illiterate. (A millennium earlier St Willibrord, ‘Apostle to the Frisians’, whose name I received at birth, had exactly the same experience in the Northern Netherlands, but via local divination escaped with his life.) Until the archaeological discoveries reported by Li *et al.* 2003, our knowledge of the oldest Chinese script was virtually limited to Shang dynasty 商朝 scapulomancy, in other words was divinatory (Wittfogel 1940; Keightly 1978). Schmandt-Besserat (1983, 1986, 1992) identified the earliest forms of Mesopotamian writing in a context of commercial tokens hardly distinguishable from cleromancy. Against the background of the wide distribution of pebble divination in historical times (e.g. Driberg 1933; Danfulani 1995), as well as pebble games such as mankala, one is tempted to press into service, in the present connexion, the pebbles with simple engraved symbols that make up major finds of the Epipalaeolithic Azilien in South Western Europe (Piette 1896; d’Errico 1988). However, Bednarik 1990b reports on an Acheuléen, i.e. Lower Palaeolithic, pebble that likewise seems to have undergone human marking, c. 50 times older than the Azilien, against the background of much other work (principally reviewed by Bednarik in a long series of publications;

²³ Goody’s reference is to: Hébert 1961; and thus primarily to geomancy. Yet his argument here does not entirely limit itself to this form of divination, as is shown by his references to ‘the names of caliphs and archangels and the sacred names of God’. Such references especially refers to specifically West African forms of *‘ilm al-raml*; they are absent from the Southern and East African versions of geomancy known to me. So are ‘the 9-cell squares’, by which is meant magic, and not necessarily 9-cell (i.e. 3x3), for they exist for the squares of each number under 9, each number specific to a particular astrological ‘planet’, i.e. Mercury, Venus, Mars, Jupiter and Saturn (the astronomical planets visible to the naked eye and thus known in Antiquity), and moreover Sun, Moon and Earth. Such *magic squares* are square matrixes of whole numbers that add up to the same sum in all possible directions. For well over two millennia they have formed a common feature of the literate magical sciences throughout the Old World.

however, cf. Chase & Dibble 1992) suggestive of the remote antiquity of human marking and representation – a context in which divination is well at home. It is far too early to draw conclusions, but the suggestion that writing and (cleromantic) divination emerge together seems worth pursuing.

4.2. The limited evidence for Palaeolithic divination

However, this does not yet yield a model of Palaeolithic divination. While the characteristics (a) to (d) are all found among all Anatomically Modern Humans in historical times, there is considerable disagreement among specialists as to the temporal scenarios attending each characteristic, and their interplay.

One plausible argument would claim that a trait's ubiquity in historical times, hence a *de facto* status as cultural universal,²⁴ makes it likely that the trait in question found itself among the initial cultural package (for which I have proposed the term 'Pandora's Box'²⁵) with which Anatomically Modern Humans trickled out of Africa from 80 ka BP on. This would situate the origin of divination in sub-Saharan Africa between 80 and 200 ka BP. Possibly even before 200 ka BP, if we give in to a recent trend in palaeoanthropology,²⁶ and no longer jealously reserve for Anatomically Modern Humans (i.e., ourselves!) the most highly ranked characteristics (conceptual thought, figurative representation, symbolism, articulate speech, music, navigation skills) but admit the possibility that our humanoid predecessors already may have had a certain share of these traits. Situating divination in Pandora's Box, as a general and early achievement of Anatomically Modern Humans, is also in line with the logocentric nature of divination which we have stressed, Anatomically Modern Humans being the only variety of humans that can with certainty be said to have been endowed (although not necessarily throughout the full 200 ka of its existence) with articulate speech as an obvious precondition for logocentricity. We might even suggest that it is not only articulate speech that brought about divination, but also proto-divination that helped to produce articulate speech.

We have to admit that we have virtually no direct and unequivocal evidence of Palaeolithic divination. For instance, and soberingly, our oldest published archaeological evidence of the South Central and Southern African four-tablet oracle is from c. 1700 century CE (Robinson 1959: plate v).²⁷

²⁴ Cf. Brown 1991, where divination appears in a long list of such proposed universals.

²⁵ *Pace Hesiod, Opera et Dies*, 42-105, where that container mainly contains disasters.

²⁶ Cf. Bednarik 1990, 1992, 1995, 1999; however, cf. the sceptical Chase & Dibble 1992 and d'Errico & Villa's 1998 taphonomic critique. Nonetheless, with regard to more recent, Middle Palaeolithic, e.g. Neanderthaloid, contexts also d'Errico advocates some cultural continuity between Anatomically Modern Humans and their predecessors (d'Errico *et al.* 1989, 1998a, 1998b, 2003). If Anatomically Modern Humans emerged in Africa c. 200 ka BP, with faculties that, though still *in nucleo*, were in principle to be continuous with those of their Upper Palaeolithic descendants inside and outside Africa, then of course many relatively sophisticated artefacts produced by Anatomically Modern Humans would have to be counted as Middle Palaeolithic or older, and – also for the prehistory of divination – the Upper Palaeolithic would scarcely represent the break it used to only a one or two decades ago. A case in point is the famous South African Blombos Cave red ochre block (70 ka BP), with complex engraved geometric line patterns (e.g. d'Errico *et al.* 2003).

²⁷ The archaeologist James Denbow (personal communication) found a marked bone, supposed to be a *hakata* tablet, in a marginally older context in North-eastern Botswana, but to my knowledge this find has not been published so far; at Denbow's instigation, I was privileged to inspect it at the Botswana National Museum in January 1994. To Denbow I also owe the suggestion that, in Southern Africa, the archaeological distribution of divination tablets may well be found to roughly coincide with that of spinning whorls; if *grosso modo* correct (the four-tablet oracle among the San hunter-gatherers obviously constitutes counter-evidence), a Neolithic

Narrative Complex (nuclear mytheme) (no.) reconstructed to have been in Pandora's Box	possible use of this mytheme in Middle and Upper Palaeolithic proto-divination as suggested by divinatory patterns in historical times	element in transformational cycle
The Lightning Bird (and the World Egg)	lightning as omen fowl as divinatory animals	aether; fire
The stones (as earth; under CITI VI revised as the stones as connection between heaven and earth)	psephomancy (divination by pebbles)	earth; aether; metal (e.g. sidereal iron)
The Moon	moon as omen proto-astrology	
The Earth as primary (10 was subsequently revised towards cattle, in the Neolithic)	earth omens proto-geomancy	earth
From under the Tree (subsequently diversified into 12a 'The world and humanity from the tree', and 12c 'the leg-child')	cleromancy with wooden tablets etc.	wood
The Cosmic / Rainbow Snake	snake as divinatory animal, snake omens; confusion with earth possible because of homonymy	aether; earth
The Spider (subsequent transformed into 'the feminine arts' in proto-Neolithic times)	spider as omen and divinatory animal	

Table 1. The divinatory significance of the reconstructed mythological contents of Pandora's Box, Africa, 80 ka BP

Unexpected indications concerning Palaeolithic divination in the African continent come to light when we manage to plausibly reconstruct some of the mythological contents of Pandora's Box (van Binsbergen 2006a, 2006b). Starting with a sample of African cosmogonic myths recorded in historical times, a distributional argument comparing the mythemic nuclei ('Narrative Complexes'), the reconstruction method is a form of distributional triangulation, and has so far been executed and written up entirely without any reference to divination. If a trait occurs in sub-Saharan Africa, New Guinea, Australia, it is likely to have found itself in Pandora's Box, because for reasons of ecological adaptation Anatomically Modern Humans, in their first sally out of Africa, c. 80 ka BP, kept following the Indian Ocean shore and thus reached New Guinea and Australia, but were trapped there without yet populating the other continents – which had to wait till the second sally, c. 20 ka later. The investigation of divination among the aboriginal population of New Guinea, Australia and the Andaman Islands is highly strategic for any argument on of Palaeolithic divination, yet falls outside our present scope. Meanwhile Table 1 suggests that divinatory patterns as recorded in historical times so unmistakably echo the specific contents of Pandora's Box, at the onset of the Middle Palaeolithic, that we may be justified to link the two moments in time, and thus acquire an impression of a surprisingly rich divinatory life in the Middle to Upper Palaeolithic, in Africa as well as in other continents where Anatomically Modern Humans gradually took the, divinatorily-relevant, contents of Pandora's Box. We may even go one step further and suggest that the cosmological classification systems which exerted a major influence upon literate divination systems of post-Neolithic period (e.g. the Taoist five-phase classification in East Asia (Needham c.s. 1956: 五行 *wǔ xíng*, 'five phases'); or the Greek four-element

context seems implied, although there is a recent argument (Chang 2000) for Upper Palaeolithic weaving elsewhere in the Old World.

classification of Empedocles (cf. Leonard 1908), with great influence on Hellenistic, South Asian and Islamic astrology) already had detectable roots in Pandora's Box, 75 ka earlier – and therefore could be argued to have played a role in divination, both in Africa and in Asia and the New World, during the Middle and Upper Palaeolithic.²⁸

A more established approach to Palaeolithic divination is on the basis, not of painstaking empirical reconstructions of Palaeolithic mythemic complexes, but by analogy with historical times, on the basis of superficially grounded Palaeolithic typological clues. Scholars projecting a conventionalised version of shamanism back into the Upper Palaeolithic follow this line of approach.²⁹ Díaz-Andreu (2001) offers a healthy though unimaginatively positivistic critique of the sweeping assumptions and generalisations characterising that line of work, especially in the hands of its main exponent Lewis-Williams.

When the shamanism analogy is pursued, much is made of the fact that in historical times shamans tend to engage in divination. However, shamanic divination is more typically mental / trance divination instead of material divination, and despite the eloquent argument of Lewis-Williams c.s. advocating to interpret most Upper Palaeolithic rock art in Southern Africa and Franco-Cantabrian Europe as 'entoptically' or psychodelically instrumental towards the production of trance, without the *a priori* adoption of that paradigm (with all dangers of circularity that involves) it remains impossible to empirically demonstrate trance divination on the basis of archaeological evidence alone.

And as far as material divination is concerned: even if it were not a-typical of shamanism, the methodological problem of identifying material divination in an archaeological context is that literally any object, natural or man-made, can be employed as a random generator, depending on the (unrecorded) set of practices and framing conditions with which the actors surround it. The situation is comparable with that of the 'ritual object', which is what enigmatic artefacts without obvious utilitarian use have habitually been labelled in professional archaeological practice. It would not help our case greatly if now we would feel free to henceforth label such objects 'potentially divinatory object'. What could, however, help us is an unequivocal and well tested typology on the basis of divination in historical times, in combination with a rigorous operationalisation that allows us to intersubjectively claim a divinatory nature for specific finds, – and to have such a claim accepted by other archaeologists. But as long as no unmistakably identifiable divinatory pouch with contents, preferably with contents spilled all over a cave floor level, or specimens of four differently marked tablets, or a divining bowl, or a gutted extispicy victim etc. have not been archaeologically identified *in situ* beyond reasonable doubt, the prehistory of divination remains an educated guess. But as we shall shortly see, we may be closer to this point that we feared.

Whereas some scholars, quite plausibly considering our Table 1, situate the origin of divination in the very remote past of the pre-Out-of-Africa phase of Anatomically Modern Humans, others would rather stress the intermediate, relatively advanced nature of divination, and look for its emergence, not just in the Bronze Age as would be in line with Vroon's theory, but at least in a relatively recent period, notably in the Upper Palaeolithic. Here there is a striking tendency, among otherwise sophisticated authors, to jump to conclusions as to the Upper Palaeolithic practice of divination, on the basis of an argument from first principles,

²⁸ The only major 'element' missing out in Table 1 is *water*. On distributional grounds (notably, consistent association of flood myths with groups characterised by mtDNA Type B, which emerged in Central Asia c. 30 ka BP), I have situated the emergence of a water-centred Narrative Complex (flood myths!) much later than Pandora's Box (van Binsbergen 2006b), but perhaps the systematics of Table 1 will bring us to reconsider such an argument now.

²⁹ Cf. Bednarik *et al.* 1990; Clottes & Lewis-Williams 1998; Winkelmann 2004; Hutton 2005.

without attempts even at empirical underpinning.³⁰

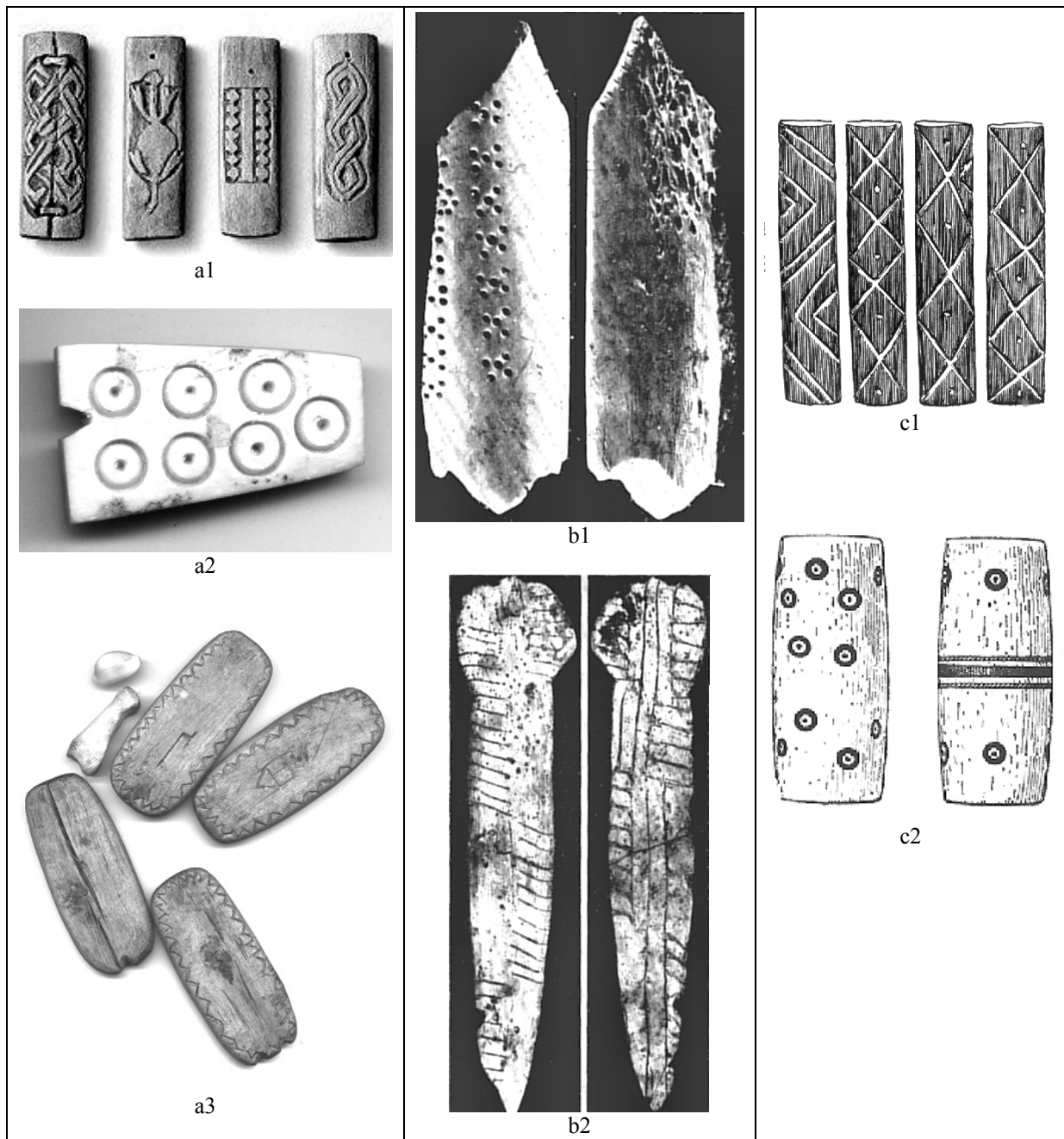


Figure 1. (a) Recent southern African divination tablets, author's collection (a1, commercially acquired wooden set, Bulawayo, Zimbabwe, 1989; a2 item from a commercially acquired set of four, ivory, bought in Limpopo Province, South Africa, 1994, courtesy Dr. Gina Buys); a3, set of a four wooden tablets (with one cowry and one goat's foot bone as peripherals), cut in a *sangoma* lodge, Francistown, Botswana, 1989 (b) possible divination tablets from Remouchamps Cave, Belgium, Upper Palaeolithic: b1 excavated in 1902 (68.8 mm); b2 excavated in 1970 (72 mm) (both after Dewez 1974); (c) c1, c2 19th century gaming / divining tablets from North America (Culin 1902 / 1975)

³⁰ Thus: Manas 2004 / 1947; Prideaux *et al.* 1977: 54f, with an archaeologically unsupported artist's impression of Crô Magnon hunters casting bones for divination. Also the sociologist Runciman (2005), better at home in today's urban industrial society, implicitly accepts divination and shamanism as obvious socio-ritual phenomena in the Upper Palaeolithic, his only quarrel being that divination and shamanism do not amount to organised religion in some sort of Durkheimian sense.

Much more plausibly, and potentially productive because moving towards a sophisticated typology that may ultimately be operationalised towards the archaeological field, Klein (1991) stresses ‘the invention of computationally plausible knowledge systems in the Upper Palaeolithic’, seeing divination as part of a package with classification systems and iconographic systems – all of which have been argued (in an extensive literature centring on the concept of the Human Revolution) to proliferate in the Upper Palaeolithic.

Meanwhile the only serious evidence for divination in the Upper Palaeolithic comes (Figure 1) from two engraved bones from the Remouchamps caves in Belgium (Dewez 1974). Linear engravings in such Upper Palaeolithic material were already treated *in extenso* in Marshack’s pioneering but controversial 1970 book *The Roots of Civilization*, and much further similar work was done in subsequent decades, but Dewez was the first to bring such markings explicitly in connection with divination, and to make the link with the similarly engraved bone and wooden artefacts used by 19th-century CE Native Americans for divination and/ or gaming (cf. Culin 1902 / 1975). Considering the widely accepted cultural continuity across Northern Eurasia in the Upper Palaeolithic, and the extensive genetic, linguistic, ethnographic and mythological evidence to the effect that the Americas were populated from Central Asia from c. 20 ka BP onwards, Dewez’s prudent suggestions make excellent sense. One could go one step further and point out (as I have done repeatedly³¹ on the basis of my Southern African fieldwork and of Culin 1902 / 1975, though unaware of Dewez’s work until 2008) the close correspondence between Southern African and North American divination pieces, which tend to come in foursomes in both parts of the world, very similar in material, format and markings. It is again the Central Asian connection which arguably connects the two complexes, to the America via the trans-Bering migration, and to sub-Saharan Africa via the Back-into-Africa migration since c. 15 ka BP onwards.

Any attempt to situate the origin of divination at any point in time prior to the Neolithic invention of food production, means that we place divination in the hands of hunter-gatherers, and that analogies with hunter-gathers in historical times may offer us possible models for the role of divination in the Upper Palaeolithic and even before. Mithen, a major author on the prehistory of mind, has no doubt (though on what grounds, he does not disclose) that divination was practised by the Upper Palaeolithic hunter-gatherers, and even believes he can make out why, advancing the following socio-biology or placebo argument:

‘Having strong beliefs may remove uncertainty in decision-making, prevent worry about why the world is the way it is, and provide one with a degree of confidence in one’s actions that would otherwise be absent. The possession of religious beliefs may be the solution *par excellence* to the problems of decision-making in highly uncertain environments: we simply follow the rules of appropriate behaviour, or use divination and waste no time on information processing when the value of different behavioural options is inherently unpredictable. Indeed some would argue that the major function of divination in hunter-gatherer societies is to ensure that behavioural choices are randomized (Tanner 1978).’³² (Mithen 1999: 157).

An approach from first principles guided by analogy is far from unusual in pre- and protohistory, yet its dangers must not be underestimated. One of these dangers is that ‘shamanism’, from a detached ethnographic description for certain religious practices, in the second half of the 20th century CE has been re-invented as an active cultic idiom and as an anti-modernist and anti-hegemonic, anti-Eurocentrist ideology, which (in addition to the

³¹ Cf. van Binsbergen 2004a; and in the original Leiden 2005 keynote address upon which the present argument is based. In addition to the divining tokens, there is an accumulating body of parallel corroborating evidence from both regions, including female puberty rites and close mythological parallels involving such themes as affinal incest and burial / body resurrection through ants.

³² Original reference.

obvious advantages of articulating the cultural diversity of knowledge procedures, and of upholding alternatives to organised, literate world religions that have dominated religious life on earth in the last few millennia) has the disadvantage of inviting facile stereotyping and of superficially appropriating a complex and heterogeneous foreign cultural phenomenon into New Age literature, neo-pagan practices, the Internet etc., and of thus engendering a politically correct lay discourse on shamanism – which is, from an analytical point of view, the worst that can happen to a scientific concept.³³

All considered, the case for Upper Palaeolithic divination is theoretically quite plausible, but remains empirically thin. We have to proceed to the Neolithic period, less than 14 ka BP, in order to find archaeological evidence whose interpretation in terms of divination is likely to stand up to further scrutiny: the Early Neolithic of South Eastern Anatolia (from c. 14 ka BP) including the once prototypical Çatal Hüyük (now supplanted by much older finds in the region),³⁴ and China towards the end of the Neolithic.³⁵ To this we may add, in general, the claims of Early Neolithic proto-writing as referred to above, having reviewed its likely divinatory connotations.

4.3. Divination and present-day hunter-gatherers in Africa

Given the catching analogies between hunter-gatherers of the Upper Palaeolithic and those of historical times, the divinatory practices today's hunter-gatherers, inside and outside Africa, take on a particular significance. Are the divinatory practices of agricultural people a Neolithic adaptation of hunter-gatherer's divination from the Upper Palaeolithic? Or is it the other way around, and do hunter-gatherers in historical times display forms of divination that did not develop in their midst, that have no Upper Palaeolithic ancestry, but instead are the adulterated borrowings from agriculturalists and pastoralists, whose more advanced modes of production would be more in line with the intermediately advanced position we have argued

³³ In the light of my discussion of the extreme paucity of direct archaeological evidence, and of Díaz-Andreu's 2001 criticism, one can interpret a statement like the following only as an act of faith:

‘Cross-cultural studies establish the universality of shamanic practices in hunter-gatherer societies around the world and across time. These universal principles of shamanism reflect underlying neurological processes and provide a basis for an evolutionary theology.’ (Winkelman 2004, much inspired by Clottes & Lewis-Williams 1998).

I propose (van Binsbergen 2004, 2006) a rather different perspective on shamanism which however I cannot elaborate here: shamanism, not as a universal from Pandora's Box, but as an, initially fairly localised, distinct historical complex, having emerged in extended Central Asia c. 20 ka BP (hence spilling over into Northern Eurasia; into the New World with the trans-Bering migration; into sub-Saharan Africa with the Back-into-Africa migration, and, more recently, Oceania), and comprising such cultural achievements as naked-eye astronomy; the concept of a celestial axis; the concept of a tiered world distributed along that axis, which is also the shaman's main path up and down; the establishment therefore of an upwards gaze; the invention of heaven and of transcendence; great emphasis on the manipulation of bones at the boundary between life and death; and the beginning of religio-politico status difference, with extensive implications of knowledge production and healing. Thus made concrete, we can develop systematic criteria for detecting shamanism from archaeological data, and it becomes possible to interpret some data from the Upper Palaeolithic (particularly from the Franco-Cantabrian region, and from Mal'ta, Southern Siberia) as evidence of shamanism. I will substantiate this view in several articles and books now in the press. Meanwhile the work of Rappenglueck 1999 offers a convincing interpretation of one famous Lascaux scene (c. 16 ka BP) in astronomical i.e. *astral-divinatory* terms compatible with my view. It is the shamanic manipulation of bones which offers a plausible context for the emergence of material divination with bone-throwing as random generator.

³⁴ Hodder 207: 111, by analogy with belaboured skulls from Neolithic Palestine.

³⁵ Nai 1963; Li *et al.* 2003.

for divination as a strategy of knowledge production?

African Pygmies, who genetically³⁶ constitute Palaeo-African populations with considerable roots in the pre-Out of Africa cultural heritage of Anatomically Modern Humans, could be supposed to have the type of hunter-gatherers divination which quite a few writers have taken for granted for the Upper Palaeolithic. The following example from Coon's *The hunting peoples* (1971 / 1977) describes in detail divination among the Akoa Pygmies of Gabon, in preparation of a hunting party:

'...Now Akhor took over the auguries. First he held a geode (a hollow nodule of stone with a crystal lining) on the ground. The smallest girl in the camp, stark naked and without ornaments, brought fresh water and poured it into the open mouth of the geode, which Akhor then covered with the palms of his hands, invoking water spirits. The geode began to sway. Akhor let it be seen as he moved his hands, and the water appeared to be bubbling, as if boiling. An assistant brought some fresh flowers which Akhor put in the water, then splashed it about and spilled it on the ground. When it had dried somewhat the wet patches on the ground where the water had fallen and flowed were interpreted. A long, straight, broken line in the middle meant a long, difficult trail, but one leading to eventual success. A circle symbolized a dead man, and triangles dead elephants. There were five triangles – a good hunt.

But one forecast was not enough. Akhor spread a piece of bark on the ground and deposited on it eight lots of divination, comparable to the Urim and Thummim of the Ark of the Covenant. They consisted of two ram's astragal[s], two water chevrotain's astragal[s], and four pieces of tortoise shell, all differently marked. The ram's astragal were not easy to come by. A ram had to be stolen from a Negro village, where the rams were kept for stud and closely guarded. The water chevrotain had to be caught alive, its hoofs and horns cut off, and the rest of its body burned to ashes.

First Akhor smeared the eight lots with a mixture of termite oil and red wood powder, red being the colour associated with marriage and childbirth. By casting these lots a number of times to see which way in each would fall, he could get over a hundred combinations, for each astragalus alone could fall in four different positions, on its top, bottom, outer edge, or inner edge. At the end of his casting Akhor predicted that not five, but eight elephants would be killed – five of them males, and one hunter. Father Trilles, who went with them on the hunt, reported that the prediction was completely accurate, if only because he had shot one of the elephants himself.³⁷

The first divination technique described here for the Pygmy diviner Akhor is a simple pattern divination along microdramatic lines, so that the number of hunters and elephants predicted to be killed in the hunt is visualised in the pattern of soil discoloration through water spilled on the ground.³⁸ Similar forms of divination have been reported from elsewhere in Africa and the world at large, but there is no reason to assume that they are anything but indigenous to the Pygmy group in question. Yet the first divination method clearly hinges on the interplay between water and earth as primal, elemental sources of information, and (although one would first need an argument suggesting the existence of a cosmology based on a handful of elements outside Graeco-Roman, Egyptian and Chinese Antiquity) one is almost inclined, by analogy, to look for other primal elements, such as may be represented by the geode (aether, fire, metal?), the bubbling (air?), and the flowers (wood?).

³⁶ Cf. Cavalli-Sforza 1986; Cavalli-Sforza et al. 1994: ch. 3; Bodmer & Cavalli-Sforza 1976. Pygmies are not culturally determined by their peculiar genetic status, just as any other populations of Anatomically Modern Humans are not. In historical times, Pygmies often speak Bantu languages and also in other cultural respects have accommodated to their Bantu-speaking neighbours.

³⁷ Coon 1977: 136f; cf. Trilles 1932. Unfortunately, Trilles has a poor reputation as an ethnographer (cf. Fabian 1983; Piskaty 1957), and his active intervention in a local hunt so as to bring its outcome in line with earlier divination is symptomatic.

³⁸ Here we are almost in the presence of 'geomancy' ('earth mantics') in the primitive, ill-defined form implied by the Roman writer Varro (the first ever to use the term *geomantia*) and the early medieval encyclopedist St Isidore: apparently an intuitive reading of such chance patterns as dessication cracks, an earthquakes, or any other non-controlled event has brought about on the soil.

The second divination technique however is cleromantic,³⁹ numerically based on powers of 2 (two times two astragals, and four pieces of tortoise shell, thus involving 2^1 , 2^2 , and as total 2^3). As we will discuss shortly, such a 2^n numerical base is widespread in African geomancies from Southern and West Africa (cf. McGee 1983) as well as world-wide throughout the family of geomantic divination systems, but also informs many other divination and gaming systems. Like in many divination systems of Southern Africa, the Mediterranean, the Ancient Near East and throughout Asia, Akhor's second technique uses astragals, mainly derived from domestic sheep; and (by a specific cosmological logic obviously alien to that of the first technique, which centres on soil discoloration) the divination pieces are not allowed to come in direct contact with the soil – which this divination form has in common with cleromantic divination in Southern Africa and Ancient Europe, and may well be taken to indicate that, contrary to the first divination method, the earth is not considered a primal source of information here but rather a polluting instance, threatening to annihilate a supernatural (aetherial, celestial?) association implied by the fact that at least the ram's bones derive from sacrificial animals. The assertion (once again the missionary's or the ethnologist's) that by repeated throws over a hundred combinations could thus be produced, is mathematically correct, but it is irrelevant as long as it remains unclear whether the diviner Akhor possesses an explicit coding system to name these combinations and to interpret them according to a conventionalised catalogue; my personal impression is that he seems to emulate a foreign divination system of which he may not have full understanding. Interestingly, the second technique is superior to the first in yielding (with some missionary assistance...) the correct forecast for the hunt. Equally interestingly, the use of domestic sheep's (*Ovis aries*) astragal indicates that, contrary to the first technique, the second technique is borrowed from Bantu-speaking, pastoralist neighbours. The water chevrotain (*Hyemoschus aquaticus*) is a small ruminant whose eligibility for divination purposes seems to reside⁴⁰ in its classificatorily ambiguous nature, combining (in this case) both a terrestrial and an aquatic habitat, and thus being, at the formal level, surprisingly similar to the earth-water emphasis in the first divination method.

Thus, far from being offered a simple conclusion, we are left, in this example of hunter-gatherer divination, with a 'mixed bag' – as seems appropriate in the context of African divination (see above). We encounter one form of divination that could plausibly be considered indigenous to hunter-gatherers, but superimposed on this, and in fact preferred by the actors, is an obviously imported divination technique that has transregional connections all over Africa and, as geomancy, all over Eurasia.

By the same token, in Southern Africa the relation between the divinatory practices of hunting and gathering (Khoi-)San speakers and food-producing Bantu-speakers has constituted an ethnographic (and ideological) puzzle. Are the four (sometimes five) leather or wooden tokens which San may wield for divinatory purposes (Bleek & Lloyd 1911: 425; Bleek 1928: 28), the primal origin of the Southern African four-tablet oracle, or merely an adulterated derivation from the latter? Are notions concerning divinatory animals in the same part of the world borrowings from San to Bantu-speakers, or the other way around? These are central questions in the recent work of Hammond-Tooke (1998, 1999, 2002). Further questions could be asked about the role of bone throwing in San life in historical times – the extensive literature contains a number of isolated cases, often involving not a 'mixed-bag'

³⁹ The reference to the Old Testament lot oracle of the Urim and the Thummim **האורים והתומים**, which has been a source of puzzlement to Biblical scholars for several millennia now (cf. Horowitz & Hurowitz 1992 and reference there), is imposed by the missionary Trilles or the ethnologist Coon but certainly not by the Pygmies.

⁴⁰ Like that of various animal species prominent in Southern African divination, cf. Werbner 1989; Hammond-Tooke 1999.

oracle but single bones (especially scapulars) from a variety of animals, but no discussion is offered as far as I am aware of; is this a surviving shamanic trait brought from Asia (and extending into North America), where scapulars have a long standing as divining bones? And finally, should San trance-related collective practices (in dance and therapy) be seen as an enactment of the primordial practices dating back to the very beginnings of Anatomically Modern Humans i.e. Pandora's Box (as the discarded anthropological myth of the 'Bushmen' as 'first people' would imply the case to be; Gordon 1992; Wilmsen 1989), or do they evoke a form of shamanism as a relatively recent, *Upper Palaeolithic* cultural innovation from extended Central Asia?

The point is that, when the question of the antiquity of divination arises, today's Khoi-San speakers occupy a particularly important position, for a number of reasons. They are assumed to be culturally continuous with the makers of Southern Africa's ancient rock art. During the last two decades such rock art has increasingly been interpreted⁴¹ as a device to optically generate altered states of consciousness, which means that it is construed as closely associated with forms of trance and psychomotoric divination. In addition to these forms of divination, the San have been reported, ever since the nineteenth century CE, to possess leather divination tablets resembling the four-tablet divination sets of the neighbouring Bantu-speaking groups. Before I was aware that, of all peoples, it was particularly the Khoi-San speakers with the relatively recent (10,000 BP) West Asian background (Cavalli-Sforza *et al.* 1994: 175f) who could provide a tangible link of continuity between Southern African divination tablets, Asian shamanism, and North American parallels, I was convinced that the Khoi-San speakers' tablets derived from the Bantu-speakers' ones, and not the other way round; this is certainly the impression which the Bleeks convey. Now I am not so sure any more, and I am inclined to follow Dornan (1921: 207; 1922), who presents the tablets as an integral and long-standing part of San life. Although I have no evidence of Khoi-San speakers divining with *mungongo* half-nuts (*Ricinodendron rautanenii*), these are major divining and gaming items among Bantu-speaking diviners throughout South Central and Southern Africa, and before the 20th century *mungongo* kernels constituted the San's main food (Robbins & Campbell 1990).

4.4. The long-range connection in space and time

There are many indications (Chinese counting rods, Indo-Iranian *barsamen* i.e. sacred twig bundles, Latinic *fascēs*, Teutonic and Latinic divination tablets as reported by Tacitus and Cicero, – perhaps even the Maya numerical system in Meso America, likewise based on unbroken lines and dots) that in the Upper Palaeolithic in Central or West Asia⁴² wooden sticks were considered epiphanies of the supernatural, and were used for divination. It stands to reason to look here for the prototypes of the tablets used in the Southern African four-tablet oracle and of many other types of artefacts used in African cleromantic divination. Some of these are likely to have come to the African continent in the context of the Back-into-Africa migration (perhaps in an extended Eurasiatic/Nostratic context conducive to the use of 2ⁿ as a standard format for divination); others may have had a much older history on African soil, relegating to the (totally unattested) earliest form of divination such as could be argued to have formed part of Pandora's Box.

There are indications that this numerical basis of 2ⁿ is very old indeed and

⁴¹ Lewis-Williams 1985; Lewis-Williams & Dowson 1988; Clottes & Lewis-Williams 1998.

⁴² When the ancestors of the later proto-Khoi-San, proto-Niger-Congo, proto-Denē-Sino-Caucasian, and proto-Nostratic/Eurasiatic speakers, and their languages and cultures, may be surmised to have displayed considerable communalities as relatively recent offshoots of *Borean, see next paragraph.

fundamental to counting and divining throughout the Old World. State-of-the-art comparative historical linguistics has managed to systematically reconstruct, with a considerable degree of reliability and incorporating the work of leading (though inevitably counter-paradigmatic hence contested) historical and comparative linguists such as Illich-Svitych, Dolgopolski, Ruhlen, Bengtson, and Blažek, a language form called ‘*Borean’,⁴³ held to be a parent of most the world’s major linguistic (macro-) families including Sino-Caucasian (most probably extending into the North American Na-Denē family, as well as Burushaski, Caucasian and Basque; cf. Shevoroshkin 1992), Austric, Afro-Asiatic, Amerind and Eurasiatic / Nostratic (the latter including Indo-European, Altaic, Uralic, Kartvelian, Dravidian, Chukchee-Kamchatkan and Eskimo-Aleut, but by an extension – cf. Kaiser & Shevoroshkin 1988 – perhaps also Niger-Congo and Nilo-Saharan). *Borean is supposed to have been spoken in extended Central Asia c. 25 ka BP. The only numerals that could be reconstructed for *Borean, are 2, 4 and 8. For these, *Borean has several distinct lexical items, one of which, *HVNLV,⁴⁴ even stands for all three of these powers of 2:

Hence (Dolgopolski n.d.) proto-Uralic **neljä* (**neljä*) ‘4’ to be found in Finnish, Hungarian etc., (cf. also Ugric **nalV* ‘eight’); Proto-Dravidian: **nāl-*, ‘4’; Proto-Sino-Caucasian: **Vnɬe*, ‘2, 4, 8’ (found in proto-North Caucasian **būnɬ_e* (-a), proto-Sino-Tibetan **lij* (p-), proto-Burushaski **alto* and proto-Basque **lau*); and in proto-Austric: **ʔaʔli* ‘two, half’; Proto-Austronesian **walu* ‘eight’; cf. Tower of Babel 2005, where for individual language families further references are given.

The intercontinental long-range antecedants of African languages is a moot point. African linguistics is no exception to the general tendency according to which for the past fifty years Africanists (largely inspired, I suppose, by laudable considerations of anti-hegemonic reticence, not wishing to deny Africans their local / regional cultural roots) have sought to explain African phenomena by virtually exclusive reference to intra-continental African conditions. It is therefore only with great reticence that the numerals in the language families of South Central and Southern Africa, i.e. Khoi-San and Niger-Congo (including Bantu), might be linked to *Borean. For the Khoi-San languages I have not been able to complete the necessary research in time.⁴⁵ For Bantu the results (Table 2), however preliminary (of course, the lexical reconstructions by Guthrie and Meeussen have meanwhile been greatly improved) and counter-paradigmatic, are sufficiently promising to *allow us to suggest that the 2ⁿ emphasis as reconstructed for *Borean is also noticeable in Bantu*: either (the main-stream interpretation) as a distant *Borean echo in what could be no more than a cognate language domain (Niger-Congo); or (and this is my preferred view) because given the Back-into-Africa movement from c. 15 ka BP onward, Asian languages of *Borean descent have in fact made a very substantial contribution to African languages as spoken in historical times. The latter could be argued for Niger Congo⁴⁶ but *à fortiori* for Khoi-San, whose speakers are after all a demonstration case of this Back-into-Africa movement.

⁴³ The asterisk is the common indicator of reconstructed, i.e. unattested and hypothetical language forms.

⁴⁴ Where V is an unspecified vowel, and H, N and L have their usual consonant value.

⁴⁵ The only remarkable result so far is that, in all Khoi-San languages, *haka* is the word for ‘4’, which suggests an interesting etymology for *hakata*, i.e. the name of the *four-* tablet oracle in that part of the world, thus strengthening the suggestion that it was originally Khoi-San, not Bantu. A rival etymology, however, derives from Arabic *hq*, *حق* ‘truth’ (von Sicard 1959), which is in line with the system’s origin in *ilm al-raml*, and any divination system’s claim of veridicity.

⁴⁶ A case in point being proto-Austric **taw*, ‘human’, which is an unmistakable cognate of the eponymic common-Bantu *-ntu*, ‘human’, after which the entire Bantu-speaking group has been named.

*Borean	meaning	*proto-Bantu as compared to *Borean	
		Guthrie (1967-1971)	Meeussen (1980)
HVCV	one		
HVRV	one		
HVTV	one		
SVMV ?	one	-mŌ	-moi
TVKV	one, finger		-pókó (?)
HVNNV	one, self		
CVNV	two		
CVRV	two		
TVWV	two	-bàdÉ	-bidi
HVNLV	two / four / eight	-nĒĒ= 4 (?) -náána = 8 (?)	-/nai= 4 (?)
MVLV	two, get in pairs, pair > two		
JVRV	two, pair		
KVKTV	two, pair, one of a pair		
HVMKV	four		

? = *Borean reconstruction exceptionally uncertain

(?) = Bantu derivation from *Borean exceptionally uncertain

Table 2. Numerals in *proto-Bantu as compared to *Borean

We have already seen how Native (North) American divining and gaming pieces tend to come in foursomes. Also in sub-Saharan Africa, 2ⁿ and especially 4 has major cosmological significance, and not only in the context of divination. The perceptive and well-informed Dennett tells us that for West Central Africa:

‘The name for God is NZAMBI and its literal meaning is the personal essence (IMBI) of the fours (ZIA or ZA = four). What then are the fours? They are the groups each of four powers called BAKICI BACI [‘the spirits down below’ – WvB]’. Dennett (1906: 166f)

In the mythical history of the Zambian Nkoya, ‘The Four’ likewise play a central role (van Binsbergen 1992). One could read these foursomes as evocations of the cardinal directions, which in most parts of the Old World are considered to be four, but I would rather be inclined to interpret these foursomes as oblique reference to an implied transformational cycle consisting of a limited number (typically 2ⁿ) of elements, and manifesting itself in cosmologies and divination systems in sub-Saharan Africa, but also (understandably, in the light of the Back-into-Africa migration from extended Central Asia – yet as a largely submerged undercurrent) in Egyptian (e.g. the 2x4 gods of the Hermopolitan cosmogony,⁴⁷ and the 16 parts into which Osiris’ body was cut by Set),⁴⁸ Greek Antiquity (Empedocles) and Chinese Antiquity (*I Ching*). My work in progress on flood myths worldwide deals extensively with this topic.

The emphasis on four and foursomes, in Upper Palaeolithic *Borean, as well as in North America and sub-Saharan Africa in historical times, contrasts strikingly with the very conspicuous, ‘Dumézilian’ emphasis on cosmological and mythological threesomes / triads throughout the Ancient Near East (including Egypt), South Asia, and Europe, in proto-historical and historical times. The triadic format therefore stands out as a regional Neolithic innovation, underneath of which apparently much older foursomes persist, for instance such

⁴⁷ Sethe 1929; Kilian 1966.

⁴⁸ Receuil 3: 56 and 4: 23 *apud* Budge 1911 / 1973: I, 386 n. 3, etc.; cf. the last sentence of footnote 8 above.

as inform the Ancient Egyptian Hermopolitan cosmology, the Empedoclean element system of Greek Antiquity, etc. In their present form, African 2^n -based divination systems (*Hakata*, *Ifa*, *Sikidy*) unmistakably have *one major, recent* background in the South West Asian divination system *ilm al-raml*, whose astrological overtones inevitably were informed by Hellenistic, ultimately Ancient Near Eastern astral divination where triadic transformations – groups of three zodiacal signs called *triplicities* – of elemental foursomes (!) play a considerable role (Bouché-Leclercq 1879; Tester 1987), each again with three specific planets as astrological ‘rulers’. More important however seems to be that, in a longer time perspective, *ilm al-raml* in turn was informed by, or has a common origin with, the East Asian divination of *I Ching*, and that both, along with the African 2^n -based systems, appear to continue an Upper Palaeolithic Old World standard pattern. One can hardly overestimate the revolution that a triadic system constitutes as compared to a classification system based on powers of 2 and therefore on recursion: whereas recursion reproduces, fractal-wise, the same set of relationship over and over again at an ever increasing or decreasing scale, triads introduce the Heraclitan / Hegelian dynamics of dialectics, where the relationship between each two components is essentially shifting and unstable, and informed by the third component; on a formal logical level one can very well understand why a cultural setting dominated by triads has become, from the Neolithic onward, the main growth region for the revolutionary package of writing–state–organised religion–(proto-)science.

Meanwhile, the long-range, transcontinental background we have identified for 2^n -based geomancies serves to mitigate the impression of complete dependence from *ilm al-raml*, and the attending very shallow time scale of 1 ka, which my argument so far may have produced for *Sikidy*, *Hakata* and *Ifa*. There is no doubt that the specific interpretative catalogue, as well as the Ifa notational system, of these systems are completely dependent on *ilm al-raml* – yet the use of cleromantic tablets, and of foursomes and other powers of 2, has a such wide distribution in historical times, and is suggested by the evidence, however flimsy, to go back so far into pre-Neolithic times, that the most plausible model for these geomantic systems is that of a very old and widespread cleromantic system that had retained its basic outlines since the Upper Palaeolithic, being merely reformulated in recent centuries (in the course of the second millennium CE), when an Islamising influence from the Near East brought *ilm al-raml*, with a newly important interpretative catalogue, and notational system and random generators to match, but on a much older basis which has been in existence on African soil for 10 ka or more. In other words, *ilm al-raml* was not just welcomed on African soil because it was new and came from far, but also because it had already a familiar ring about it.

4.5. Identifying the cradle of African geomancy?

In my first extensive treatment of the transcontinental connections of geomancies and mankala board games (Binsbergen 1997), written when I was barely aware of such long-range approaches in linguistics, genetics, archaeology, mythology and ethnography as were then already gaining momentum, nor of the attending methodologies, I was impressed by the Sinologist’s Martin Bernal’s suggestion (personal communication) that 坤 *kūn*, the eighth trigram ☷ in *I Ching*, commonly interpreted as ‘the receptive field, the earth’, had no Sino-Tibetan etymology and might be connected with Ancient Greek χθών *khthōn*, likewise meaning ‘earth’, thus conveying the suggestion of a non-Chinese, possibly Indo-European origin of the *I Ching* system (cf. Tokharian A and B as far eastern extensions of the Indo-European language family). In this connection we should also mention that, whereas *I Ching* is 2^n -based, the dominant Chinese (Taoist) doctrine of elements recognised not four but five elements), which therefore suggests that the 2^n -based system is either alien or very ancient

and supplanted in historical times.

We now have the tools available to check Bernal's suggestion, and it proves most valuable. According to the authoritative Tower of Babel (with Sino-Tibetan etymology, and treatment of Chinese characters, compiled by the lamented Sergei Starostin), the eight trigram names with the exception of 乾 *qián* ('the creative, heaven') and 震 *zhèn* ('the arousing, thunder') have no etymologies beyond the Sino-Tibetan realm, and as many as four (notably: 兌 *duì* 'the joyous, swamp', 巽 *xùn* 'the gentle, wind, wood', 艮 *gèn* 'keeping still, mountain' and 坤 *kūn*) lack even a proto-Sino-Tibetan etymology. On the other hand, Greek *khthōn* derives⁴⁹ from Proto-Indo-European: *dg'hem-, 'earth' (hardly distinguishable from *g'hem-, 'snake', which is mythologically very significant!). Of the many transformations of this etymon in Indo-European languages only Hittite: tekan, taknas 'earth', dagan, tagan- 'down, on the ground' (Friedrich 1932: 204, 220), and Greek *khthōn*- come anywhere near Chinese *kūn*, whereas the geographically best qualified languages, Tokharian A and B, remain at a greater distance with A tkam B kem (Adams 1999: 192; note the n / m problem).

This lends credibility to Bernal's suggestion, but also creates further puzzles. If *kūn*, and perhaps some of the other trigram names, constitute Anatolian linguistic elements, was it because the trigrams originated in West Asia and from there diffused to East Asia; or was these language's original home much more to the East? Before Hrozny's decipherment of Hittite established the Indo-European nature of that language, its speakers were commonly regarded as 'Turanic', and even as downright Chinese, especially in circles of Biblical studies. Movement back and forth across the Asian steppe along an East-West axis has a very long history. Both the Tocharian language and the recently found Tarim mummies suggest that exchanges (both linguistic, and cultural) between Indo-European and Sino-Tibetan may have taken place far east on the steppe. On the other hand, the great comparative linguist Karst (1931) suggested – albeit on the basis of far too modern Chinese language forms – that the realm of Sino-Tibetan may have extended into West Asia in the Bronze Age – thus foreshadowing later more systematic explorations into the continuities between Basque, Caucasian languages, Sino-Tibetan, and Na-Dené. In addition to exchanges in a contact area where the two languages groups and their distinctive cultures more or less share a habitat, we may reckon with the simple displacement of people, linguistic elements, and ideas across the great distances of the steppe. Needham & Ling's path-breaking study (1961 / 1954) gives a long list of East-West technological and intellectual exchanges. In the preceding decades there had been a tendency, partly based on now obsolete paradigms (including pan-Babylonism), but partly also inspired by a long-range awareness which was to become increasingly counter-paradigmatic in the course of the 20th century CE, to see astronomical and astrological knowledge as travelling West-East in (proto-) historical times, i.e. from West Asia to China, by long-range spatial transfer.⁵⁰

Theoretically it is conceivable that both Chinese *kūn* and the superficially similar

⁴⁹ Cf. Pokorny 1959-69: I 662 f; Buck 1949: 16.

⁵⁰ Terrien de Lacouperie 1882, 1888 – specifically claiming a Mesopotamian origin for *I Ching*, but contested by Legge 1891/ 1988: xix; Warrington Eastlake 1880, making a similar claim; Kugler 1900: 79f; Bezold 1919 (surprisingly sophisticated and apparently little dated); Ungnad 1932-. Ancient Sumerians identified as 'blackheaded people' (Kramer 1959: 72 and *passim*), but so has (for better or worse) the classic Chinese expression 黎民 *lí mǐn* often been translated, as basis for a debate on Chinese-West Asian continuities that has been waged since the times of G. Schlegel (second half 19th c. CE), and that has acquired Afrocentrist overtones in recent decades with the work of Clyde Winters. Archaeologically, the continuity between West Asia and China in Neolithic times in terms of ceramics, food production (agricultural implements, names of domestic animals) and weaponry was found to be remarkable, perhaps with an overall tendency towards West-East movement.

Greek and Hittite forms derive not from one another but from a common ancestral form. This however turns out not to be the case: there is undoubtedly a genetic relationship, but it cannot have produced *kūn* in the Sino-Tibetan context:

The etymology of the Indo-European words in question is not controversial: via proto-Indo-European **dg'hem-* or **dhǵhem-* ‘earth’ they derive from Eurasiatic: **DVG-* ‘earth’, which has also yielded proto-Altaic: **t'āgo* [+ Tungus-Manchu **tuka(la)?*] (‘dirt (dust, clay); Kartvelian: **diq-* - (‘clay, earth’); Dravidian: **TūK-* (‘earth’); and Eskimo-Aleut: **taŋŋə-* (~ -*ŋŋ-*) ? (‘black’) (cf. Illich 1967: 342, 1971-1981: I, 220; Dolgopolski n.d.: 551, 2331, 2347. Ultimately Eurasiatic **DVG-* derives from Borean (approx.): **TVKV* ‘earth’, which appears in other linguistic (macro-) families as follows. *proto-Afroasiatic*: **daḳʷ-* ‘clay’; *proto-Sino-Caucasian* *[*t*]VQV, whence – Starostin 1989 – proto-Sino-Tibetan: **dhək* ‘clay, mire’ (with Chinese: 埴 **dhək*, **thəks* ‘clay, clayey’ – *not even remotely reminiscent of* 坤 *kūn*, proto-Tibetan: *ādag* ‘clay; cleaving, adhering’, proto-Lushai: *diak* ‘mud, mire’), proto-Yeniseian: **təq-*, proto-Burushaski: **toq*; *Austriac*: Proto Austronesian **bitak*, **-tak*, **litek* ‘mud; earth, ground’, ?, Proto Austroasiatic **tvk* ‘sticky’; *Amerind* (misc.): **tvk-* ‘dirt’; *African* (misc.): Bantu **-tākà* ‘soil’; cf. (Illich-Svitych 1965: 342; Bengtson & Ruhlen 1994: 42).

All this means that Bernal’s long shot appears to be surprisingly well-aimed. It would constitute a project in comparative historical linguistics in its own right to ascertain whether the remaining three apparently exotic trigram names, *dui*, *xùn*, and *gèn*, could likewise be argued to have an Anatolian/Greek background. Meanwhile, we may safely assume that at least one of the eight trigram names, *kūn*, has an Anatolian/Greek language origin, which also allows us to date that name to 2nd-3rd millennium BCE. Remarkably, the traditional Chinese account of the origin of the trigrams has been that the legendary ruler / culture hero 伏羲 Fu Xi, mythically dated at the early 3rd millennium BCE, spotted them on the back of a mythical animal (dragon-horse or turtle) emerging from the River Luò 洛河, with which also the invention of the *luò shū* magic square is connected. Conventionally depicted as wearing a leopard skin and/or deer skin, the character of Fu Xi not only has shamanic and steppe connotations but is especially continuous with iconographic patterns attested in Neolithic Anatolia,⁵¹ classical Greece,⁵² and, not unrelated (Vandenbroeck 2000), in the Neolithic Sahara, where likewise leopard skin clothing has been depicted (Breuil *et al.* 1954), and where an apparent proto-script largely built of horizontal lines and dots has been attested, i.e. reminiscent of geomantic notation (Lhote 1954). The Anatolian / Black Sea region has long been recognised as exceptionally innovative, among the earliest regions of Neolithic domestication of crops and animals and of metallurgy, and arguably the homeland of at least one major language family (Indo-European) while skirting the Sino-Caucasian and the Afro-Asiatic distribution areas, and a major region for the innovation and subsequent diffusion of mythical materials e.g. flood myths. I think we have found serious indications that it was also in the Anatolia / Black Sea region, in Neolithic times, that the very ancient heritage of a 2ⁿ based counting, classification and divinatory system came to be greatly developed and formalised into a proto-geomantic system. The latter subsequently found its way to China as *I Ching*, to Mesopotamia in ^cAbassid times where (most probably under further Chinese feedback) it became ^c*ilm al-raml*, and also to North and sub-Saharan Africa: certainly after 1,000 CE as a form of diffusion of the then recently formulated ^c*ilm al-raml*, but possibly (and this would accommodate Afrocentrist insistence that geomancy is not a recent import but is

⁵¹ A case in point is the famous site of Çatal Hüyük; Mellaart 1967; Kammerzell 1994.

⁵² Dionysus was mythically associated with long-range eastward expansion, and his manifold leopard connotations seem to reappear in the military ranks and the adornment of the Chinese Emperor’s chariot.

genuinely at home in Africa) already several millenia earlier; after all, the classic formulation of *‘ilm al-raml* is by *shaykh* محمد أَلزَّنَاتِي Muḥammad al-Zanātī (c. 1200 CE),⁵³ whose Berber name just might suggest that he formalised a system already in use in the Saharan environment where it is still widely attested.⁵⁴

Thus an increasingly coherent and convincing picture is emerging of the prehistory of African geomancies. What however continues to amaze us is that, both in China and in ‘Abassid Iraq, geomancy appears more or less⁵⁵ like the goddess Athena springing forth from her father’s head, adult and in full armour – neither archaeology, nor the painstaking and intellectually inspired philological-historical study of divination in the Ancient Near East (including Anatolia, Egypt and the Bible world) and Ancient Greece (with a few apparently Pythagorean but probably largely Byzantine exceptions), have so far brought to light proto-geomancies dating from the last few millennia before the Common Era. However, one usually finds what one is looking for on the basis of a tacit paradigm and an explicit theory, and I am confident that the present synthesis will prove to have heuristic value in this respect.

So far our, somewhat illuminating yet inconclusive, review of the prehistory of African divination. Unless we are prepared to follow Ibn Khaldun’s example and use divination in order to reconstruct the history of divination, divination by means of sticks is technically known as *rhabdomancy*, and an appeal to strategically concentrate on the typological and archaeological elaboration of the study of rhabdomancy, is about as far as we can go to trace divinatory prehistory:⁵⁶ concentrating on finds suggestive of cleromantically interpretable *series* of (ideally) 2ⁿ *identical* (artefact or natural) items, or – given the combinatorial implications of marking – of smaller numbers of *marked similar* items, all of them small enough to be easily manipulated by human hands, and occurring in a single context or arguable originating from a single context.⁵⁷

⁵³ Cf. al-Zanātī 1923.

⁵⁴ However, like several other North African groups the Zanata tribe is known for its extensive Jewish influence, and Zanati may simply have relied on Hebrew geomancies, such as have been in existence at least since Ibn Ezra אבן עזרא (1092/3–1167 CE) – his geomancy was found at the famous Cairo *geniza*), as unmistakable emulations of Arabic prototypes.

⁵⁵ Faḥd 1966, however, does discuss a few apparent antecedents from the first centuries AH / the late first millennium CE. His emphasis, in this connection, on ornithomancy (with birds) and belomancy (with arrows) does not do justice to the long history of these mantic forms in their own right, nor to the very specific combination of random generator, notational system and elaborate interpretative catalogue that constitutes a geomancy.

⁵⁶ Cf. Loewe 1988; Petersen 2007; Buckland 1876.

⁵⁷ One artefact that precisely fits this description is the engraved round bone disk (*‘rondelle d’os’*, 25 mm diameter), pierced at the centre, from the French Upper Palaeolithic (Magdalénien, c. 14 ka BP, Laugerie-Basse, now at the Musée de Préhistoire des Eyzies de Tayac, Dordogne, France), showing a standing caprid on the obverse side, a lying one on the reverse side – conceivably a simple, one-bit divinatory random generator for hunting success (illustrated in Prideaux *et al.* 1977: 104f, who soberly suggest it to be a button; also cf. Peyrony & Maury 1914; Taborin & Thiébaud 1997). In the African context, could the Upper Palaeolithic animal depictions on stone plaques (c. 12 cm) from the Apollo 11 Cave, c. 28 ka BP, Namibia (Wendt 1974) have served a similar divinatory purpose?

5. Does African divination 'work', and if so, how can it? Divination as a puzzle in intercultural epistemology

5.1. How can divination survive

How can divination survive, and even go through a process of resilience, especially in societies in the process of modern, electronic globalisation? Most clients of diviners would answer: 'because divination allows the diviner to see through space and time, and thus to assist the client in his predicament'. Most anthropologists however would give a very different answer:

- 'Divination survives, not because it has any justified claim to veridicity (it has *not*), but because it produces local meaning and even truth, and it does so tautologically (as any detailed analysis of diviner-client communication would reveal), in such a way that error and sleight-of-hand are never found out by the actors themselves'. For instance, one of the most perceptive non-African students of African divination has been William Bascom. In one of his earliest publications on Ifa, he believed he has found the key to the impression of veridicity Ifa divination creates in the average client. It is an answer that most anthropologists would find inherently convincing, and that can be summarised in the following terms: *In divination, the dynamics of interpersonal communication between client and diviner in divination make any counter-paradigmatic recourse to the extrasensory, paranormal transfer of knowledge unnecessary.*

'Mr. Clarke implies that it is the diviner who determines which of the several verses associated with each figure is appropriate to the client's problem. Had he realized that it is not the diviner, but the client, who does the selecting, it might have been possible for him to explain the accuracy of the diviner's predictions in more realistic terms than 'telepathy' or 'hyperesthesia.' On the other hand, Clarke is one of the very few writers to make the important point that if they (the diviners) are honest we must exclude the hypothesis that, through their associates, they inquire into the affairs of their clients and thus know the probable subject of an inquiry and are enabled to prescribe the measures which should be taken.' (Bascom 1942: 251)

- Meanwhile the most common anthropological explanation of divination remains the following: 'Divination survives, not because it has any justified claim to veridicity (it has *not*), but because it negotiates existential crises and intra-community conflict, and hence offers an essential social service, regardless of the inherent truth of the divinatory pronouncements'.

While these two explanations satisfy the common sense of anthropologists and their readers, they do not do justice to the common sense of African diviners and their clients. The discussion is an old one: how can the scientific knowledge we produce as students of African divination live up to its promise of revelation and liberation, if it is predicated (like so much in religious anthropology has always been) on the denial of the experiential and mental competence of the people we study (van Binsbergen 2003a)? Thus, after the counter-paradigmatic long-range perspectives in space and time that made up the previous section, we must prepare ourselves for an even more counter-paradigmatic exploration: one that, from an epistemological point of view, calls into question the very rationality on which anthropologist's scientific approaches to African divination are based. For clarity's sake I will concentrate on the case of *material* divination.

5.2. African material divination as procedural, intersubjective, objectified knowledge production

I submit that what distinguishes scientific knowledge from nearly all other forms of knowledge production, is primarily a matter of *procedure*. The truth of a scientific statement resides in the explicit, intersubjective procedure (method, in other words) through which that knowledge has been produced. The same emphasis on intersubjective procedure as the decisive basis for valid knowledge production is, however, found in the arts of the diviner and the healer, the astrologer, the metallurgist, the navigator etc. These trades are now found all over the world. The oldest texts at our disposal documenting these trades derive from the Ancient Near East over four thousand years ago. They are expressions, not so much of traditional wisdom (although they may contain lessons to negotiate the practical difficulties of life), but of proto-science. The hallmark of such procedures is that *knowledge appears as the necessary implication attending an intersubjectively (professionally, often) recognised limiting condition whose occurrence is implied to be not unique but repetitive, so that a standard rule can be established*:



‘if the lob of the liver turns out to be darkened, then...’, (Ancient Mesopotamia; cf. Bottéro 1974; Jeyes 1989)

‘if the goddess Aphrodite ♀ (i.e. the planet Venus) and the god Ares ♂ (i.e. the planet Mars) are in conjunction in the heavens, then...’ (Ancient Greece; cf. Bouché-Leclercq 1879; Tester 1987)

‘if the chick’s gut turns out to have black spots, then...’ (Guinea-Bissau, author’s field notes 1983)

‘if the patient displays a insuppressible urge to dance to the singing tune peculiar to Sidi Mḥammad but remains indifferent to the tunes of other local saints, then...’ (Tunisia, author’s field notes 1968)

‘if the patient displays a insuppressible urge to dance to the singing tune peculiar to a particular invisible possession agent (e.g. *Bituma*, *Moba*, *Mwendapançi*, *Vindele*, etc.) but remains indifferent to the tunes of other such agents, then...’ (Zambia, author’s field notes 1972; the striking parallel with the previous item, across a distance of over 5,000 km, is deliberate and no mistake)

‘if the throw of the *Hakata* divination tablets brings up the tablets *Kwame* and *Shilume* face up , but the tablets *Lingwana* and *Ntakwala* face down , then...’ (Botswana, author’s field notes 1989).

Although such expressions are likely to be informed by a traditional worldview, they cannot to *reduced* to such a worldview; they properly belong to a specific, *procedural*, intersubjective and objectified mode of knowledge production – one that leads directly (although along a long and bumpy road) to today’s science. By contrast, the expressions of traditional wisdom as the predominant alternative form of knowledge found all over the world (in myths, proverbs, prayers, social etiquette, therapeutic conventions, ceremonial and ritual prescriptions etc.) typically lack the reliance on standardised, hence repeatable and generally available intersubjective (e.g. professional) conditional procedures to underpin their truth claims. The underpinning of expressions of traditional wisdom lies in human (especially ancestral) or divine authority, fed by revelation, a past charter, or diffuse, life-long experience. Such underpinning cannot be summoned, at will, repetitively, and instantly, in every specific situation as is the case for the limiting conditions underlying (proto-) science.

The art of the African diviner-healer usually – if he or she relies on material divination and not on exclusively on trance and visions – includes specific technical procedures, which are well-defined, managed and transmitted among the specialist owners of such wisdom. In

Southern Africa, as we have seen, these procedures are considered to be highly objectified and intersubjective, and administered by a guild of diviners which (ever since the lifting of the colonial ban on divination) work together with the national government concerning the issuing of diviners' licences; any novice diviner-healer aspiring a state-recognised licence (which is good for competition but especially offers protection in case of client fatalities) is tested by a committee of senior diviners other than his or her own teacher(s). We have established that such divination is largely procedural, determined by the specific conventionalised interpretations of conditions defined by explicit limiting conditions, of the type 'if ..., then...'

If they were in fact so determined for the full 100%, such formal procedures would in principle produce (proto-) scientific knowledge. However, to the extent to which the implication triggered by the limiting condition (for instance: '...then the king will die') in reality – under the regime of truth construction that informs our present-day science – can only be said to be totally unrelated to the limiting condition, such implications are false and such science can, under the dominant scientific paradigm, only be called pseudo-science.⁵⁸ On the other hand, if the diviner-healer's lay client (and often the diviner-healer himself) consciously finds that he believes in the diviner-healer's pronouncements, this is so not only on the basis of the latter's authority (as in wisdom knowledge), but also and particularly because of the client's belief in the objective infallibility attributed to the divinatory procedures followed, as patent truth-producing techniques of a repetitive, objectifying, technical nature. *We are left with a puzzle, an aporia, for if the material instruments of divination (e.g. four tablets, a collection of bones or figurines, the chance traces left by nocturnal visitors from the animal kingdom, the painstakingly calculated chart of the position of planets at a particular place and time) are strictly applied in accordance with the rules, which formally do not leave any degrees of freedom, they could not – under today's global scientific assumptions – possibly produce veridical divination. Yet they do, in my experience.*

Two different solutions present themselves at this juncture. The first is in line with the mainstream anthropological approaches to divination, the second is in defiance of such approaches.

5.3. The mainstream solution: African divination as normal wisdom production beyond strict procedure

My first solution to our epistemological puzzle is that in fact the procedures are *not* strictly followed, and cannot be. Every divinatory outcome displays what the divination specialist Werbner (1973) has called 'the superabundance of understanding': there is never just one clue but there are always several, and these are always more or less incompatible and contradictory. For instance, in Southern African four-tablet divination,⁵⁹ every fall of the four tablets (and with back and front of each tablet being marked as different there are $2^4 = 16$ different outcomes possible, which are coded as sixteen different named configurations) can be interpreted in very complex ways. In addition to the polysemic semantic connotations of the configuration's name, a general abstract meaning and a standard interpretation, all three of which are also hinted at in the conventional praise proper to each of the sixteen configurations,

⁵⁸ As today's astrology is justifiably called pseudo-science today (Popper 1959 / 1935), although 3,000 years ago it was in the forefront of (proto-)science, and less than 300 years ago it was still taught at West European universities. Probably, and hopefully, the paroxysms of today's science (the theory of relativity, quantum mechanisms, and neurobiology) will end up as pseudo-sciences within a few centuries, to be replaced by better science...

⁵⁹ Cf. van Binsbergen 1995, 1996, 2003a: chs. 5-8.

there are seven dimensions that may or may not be implied and activated whenever a particular configuration comes up in the course of a divination session: ancestors, the body, witchcraft, generations, social relations, property, and the animal world. The conventionalised praise texts are ambiguous and dark, just like the pronouncements of the Delphi oracle in Ancient Greece (Fontenrose 1978), or those of the *I Ching*. By the same token, a full astrological theme ('horoscope') in the – historically closely interdependent, cf. Pingree 1978 – Near Eastern, Graeco-Roman, or South Asian traditions, is an array of immense complexity. The astrologer has to take into account all the possible so called 'aspects' (in degrees, with each cohort of degrees having its own conventional *benefic* or *malefic* connotations), with very specific meanings and elaborate correspondences – of colour, musical tone, geographical location, gender, mood, moral quality, etc., each of which very specific to each of the various planets and to several secondary astrological points. Invariably, what the diviner ends up with is a bundle of contradictory and incompatible associations from which simply not one unequivocal outcome can ever result, *unless through drastic selection and weighing i.e. by sleight-of-hand (even if performed in good faith)*. Therefore, the diviner simply engages in the production, not of scientific procedural truth, but in the production of manageable, interpersonally relevant and practically applicable *wisdom*. In doing so, the diviner will juggle the abundance of clues, many of them mutually contradictory, which the oracular procedures provide in combination with the diviner's background knowledge of the client and of the latter's situation, and pressing all the loose ends into an increasingly coherent complex narrative, which (due to the intensive interaction between diviner and client during the session) the client will increasingly recognise as revealing and as relevant, and to whose articulation the client herself or himself often makes major contributions. Thus the diviner can be said to work along lines that are not essentially different from the creative skills (of selective synthesis and massaging over contradictions, and rhetorical persuasiveness) allowing a scholar to produce a convincing and publishable argument.

In the process, the diviner makes intensive use of the multi-interpretability and of the degrees of freedom which the oracular apparatus provides. Yet at the same time he derives his own authority from the fact that he can nonetheless let this sleight-of-hand pass as the immutable, unequivocal, authoritative outcome of technical oracular procedures. We may suspect that the authority attributed to such divination is already predicated upon a proto-scientific wider context, where (even in the eyes of the individual lay client, having somehow adopted the specialists' proto-scientific outlook) it is procedures rather than supernatural authority that produces oracular truth. But even though the diviner and the client believe that the oracular pronouncements are compellingly determined by the strict application of the intersubjective, standard oracular procedures, *in fact they are not*. From complexity and contradiction, via techniques of negotiation, weighing and selection, to meaningful pronouncement – this is the path of wisdom, not of science. *What the diviner does, is the production of unique, bricolaged practical wisdom under the disguise of the production of systematic and unassailable knowledge by means of repetitive standard procedures that enhance the authority of his pronouncements.*

5.4. The radical alternative solution: African divination as paranormal, veridical knowledge production

The second solution is more radical, and more to my liking.

As a social scientist, historian and philosopher, who for decades has studied religious and ethnic ideologies in modern Africa, I know full well that collective representations, and the practices based thereupon, need not be *true* in order to survive – all that is needed is that they are endowed with social power by being socially instituted; and we have above stressed

the highly institutional nature of African divination as one of its major structural characteristics. So let us admit that the survival of divination is not *proof* of its veridicity. Yet I wish to defy the mainstream solution, and insist on the fact that divination often has a qualified, limited, yet justified claim to veridicity; as such it does produce enough truth that is verifiable to the client, so as to lend redeeming authority to the rest of the diviner's therapeutic revelations. In other words, the clients are to a certain extent acting rationally in taking divination seriously. Although I understand (and use, as a diviner) the technique of picking a client's mind surreptitiously by ordinary (including non-verbal) communication methods, my years of work as a practicing diviner have convinced me that part of what the client experiences as oracular truth, is often in fact just that, and is based on knowledge acquired by extra-sensory means.

Philosophers, epistemologists, psychologists and physicists have given much thought to the possibility or impossibility of paranormal knowledge. Motivated in part by a healthy dislike of charlatans, ignoramuses and naïve New Age dreamers, the powerful and vocal Sceptic Movement, especially in the USA, with several Nobel laureates among its members, seeks to discredit all suggestions to the effect that the world may be more complex and less mechanistic than assumed in the materialist, optimistic days of scientism, from the late 18th to the early 20th c. CE. Considering the epistemological and political naivety of many present-day Sceptics, their close links with the military, political and industrial establishment of the North Atlantic region, and the fact that the science they blindly defend has become the central legitimating force in the modern, post-religious world (Foucault 1969), their strong opposition can only be an additional reason for us to take a different view from theirs in regard of divination. Like the ancient astrologists, the Sceptics show uncritical allegiance to a form of scientific rationality that, far from being universal and eternal, is only specific in space and time, and that, despite the power and legitimacy with which that specific form is invested in their own time and age, can only – by the very nature of science – be expected to be recognised as obsolete in the very near future.

In the Western philosophical tradition, the philosophy of mind has faced aporias for a number of reasons:

- the heritage of Platonic / early Christian / Cartesian body-mind dualism (critiqued by, for instance, Ryle 1949),
- well-known but difficult to avoid pitfalls of the 'other minds' problem;⁶⁰
- the Western stress on the concept of the individual, undivided self – conceived not as a socio-cultural construct peculiar to a particular time and place, but as a self-evident given of the human condition in general – as the central cosmological and ontological entity.

The latter point claims that it is impossible for minds to communicate directly with one another, leaving only the indirect transmission of mental contents via material signs (including speech) received through the senses. Such an individualistic and atomistic conception of the mind, whilst a basic tenet informing most publicly mediated secular and religious thought today, leads us into some difficulty, since the actual direct communication between minds (as implied in the ideas of divination, precognition, and telepathy) is, *at the subjective level*, simply an everyday experience to many people from all cultural orientations, wherever in the world, and all times. Admittedly, neuroscience (as touched upon above) allows us to construe such experiences as illusory and offers an explanation as to why they should occur at the subjective level; however, most African worldviews offer a totally different explanations. Are these obviously wrong?

Philosophers have given some attention to (the claim of the existence of) paranormal

⁶⁰ Bilgrami 1993 and references cited there.

phenomena.⁶¹ An authoritative synthetic overview of the vast empirical evidence for paranormal phenomena, in the face of the Sceptics movement, is offered Dean Radin (1997, with extensive bibliography). Radin holds a PhD in physics. One of his further contributions to this field was that, together with R.D. Nelson, he persuaded an authoritative, mainstream physics journal to publish a discussion of nearly a thousand cases of consciousness-related anomalies in random physical systems, e.g. computers whose internal functioning was demonstrably influenced by the presence of humans seeking to influence these electronic process mentally without any demonstrable material contact (Radin & Nelson 1989). If modern physics can seriously consider the question (which admittedly is very different from positive affirmation) whether digital random generators can be tilted out of randomness by sheer human consciousness, then students of African divination systems must be prepared to entertain the same question for the random generators that are at the heart of African systems of material divination, even though these happen to be analogous instead of digital. The point is very relevant, for as divination sessions using the four-tablet oracle develop (in interplay between diviner and client, where they take turns in throwing the tablets and where the diviner, in his comments to throw after throw, progressively weaves an increasingly detailed, relevant, and coherent story explaining the client's predicament and its remedy) the diviner is professionally supposed to be able to throw, at a crucial point in the session, precisely that particular one of the sixteen combinations that happens to best fit the evolving narrative. Many diviners claim they can, and my personal experience as a diviner is that I, too, am capable of influencing the complex random generator that a set of four hand-held wooden pieces constitutes, and of thus producing the required combination – not by any conscious training in sleight-of-hand that I am aware of, but by what I take to be psychokinesis.

A fundamental insight from quantum mechanics is that there is no objective reality out there waiting patiently and immutably to undergo the probing of our measuring instruments. Instead, (a) the human observing subject, (b) the measuring instrument, and (c) the world at large are inextricably caught in the clutches of collusion, *so that each of these three terms produces the other two in the most literal sense*. This is the mainstream, state-of-the-art physics basis for what I have experienced as a diviner-cum-scientist numerous times: *depending on what face we turn to reality, reality will encounter us accordingly* – as a world in which veridical divination is not only thinkable but becomes a reality, if we approach that world with our diviner's mind set and trained skills, and dressed in full diviner's regalia; or alternatively as a world in which veridical divination (or other paranormal feats of the types claimed by African ritual and therapeutic specialists) remains merely a figment of the imagination and cannot be produced under controlled experimental conditions, if we approach it objectifyingly – with the white coat and the measuring instruments of modern North Atlantic / global natural science.⁶² There is no saying how many more modalities the infinite, ultimately divine, possibilities of the universe may put before us (us, as the privileged self-reflective exponents of that universe, both belonging to it and capable, by our very powers of discursive thought, to dissociate from it).

Anthropologists working on African divination and trance often have similar phenomena to report which seem to go against the dominant, 'Sceptical' natural-science paradigms of today's globalising world culture under North Atlantic hegemony. It must be

⁶¹ E.g., Eisenbud 1982; Brier 1974; Mundle 1964; Grim 1990. I have elsewhere discussed these themes in connection with my work as a diviner (van Binsbergen 2003b), presenting what I consider remarkable indications of the four-tablet oracle's veridicity.

⁶² This is why the Sceptics will always have it their way in the sense that no scientific proof under the kind of laboratory circumstances they would insist on, can ever be offered of the very phenomena that are commonplace in the diviner's art when performed in its own congenial setting.

emphasised that there are huge epistemological and methodological difficulties inherent in such claims of extrasensory and otherwise paranormal phenomena in the African context.⁶³ On the other hand, contrary to what most modernist Sceptics, and their lay parrots, seem to realise, the mainstream physics theory of *non-locality as an aspect of quantum mechanics* does provide an excellent theoretical basis for the possibility of such paranormal phenomena.⁶⁴ Since such insights, in locally encoded cultural forms, are common-place in many African contexts but repressed from public circulation (especially among non-specialists) in the post-Enlightenment North Atlantic region, *paranormal phenomena may be argued to constitute a domain where the truth claims of African knowledge producers are not just valid within the local African space of culturally-created self-evidence, but may deserve to be globally mediated as a statement of a challenging transcultural truth, an alternative to current collective representations in the West.* Yet most anthropologists with such experiences hide in anthropology's mainstream explanations that make the diviner merely a skilful manipulator of plain sensory information derived from the client or the community at large. Of course, there is no denying the ordinary psychology of the interpersonal information flow, by virtue of which clients often sensorially transmit information to diviner-healers without the client being aware of this, thus allowing the diviner-healer to spuriously claim paranormal sources of knowledge. Yet I have grown convinced that these normal processes of communication, coupled with the techniques of trans-individual sensitivity that one is taught as an African divinatory and therapeutic specialist, create fertile grounds also for non-sensory forms of knowledge transmission.

Such transmission is eminently accounted for in the worldview of African wisdom. In the Southern African divinatory idiom, extrasensory production of what appears to be valid knowledge is explained by the (in that cultural context) self-evident intercession of possessing or guiding ancestors. A West African alternative view is contained in the local philosophy of mind, such as articulated by Gyekye and Wiredu, for instance, in their rendering of the ontology of the Akan ethnic and linguistic cluster in West Africa.⁶⁵ In the Akan version, individual minds are, as forms of what is locally called *sunsum*, considered to be semi-autonomously subsumed in a universal World Soul, *okra*, and it is this interconnectedness which eminently accounts for telepathy, precognition and veridical divination.⁶⁶

Part of the problem here has been brought out by the philosopher of science Sandra

⁶³ Olivier de Sardan 1988; however, cf. from the African side: Hebga 1998; set in a wider framework by Amougou 2006.

⁶⁴ Cf. Einstein et al. 1931, 1935; Bell 1964; Walker 1977; Bohm & Hiley 1993; Aerts 1985.

⁶⁵ Cf. Wiredu & Gyekye 1992; Gyekye 1995; Wiredu 1980. The accounts of these two philosophers of the Akan system do not completely match. Cf. Müller 2002.

⁶⁶ Of course, the idea of the World Soul is not limited to African worldviews as recorded in historical times. It is found in the literate, specialist traditions of the East and the West. The idea of the World Soul is associated with the concept of *Ātman आत्म / Brahman ब्रह्म* of in South Asian Advaita Vedanta अद्वैत वेदान्त philosophy as formulated by *Ādi Śankara आदि शङ्कर* (c. 800 CE). In the Western philosophical tradition the idea of the World Soul is associated with such names as Heraclitus (e.g. fragment D. 22, A, 17), Plato (*Timaeus* 29f), the Stoics, Plotinus, the early St Augustine, the alchemical tradition from Late Antiquity onward, to re-surface with Spinoza, Leibniz, Newton, Lessing, the Theosophical movement around 1900, and (on the borderland between philosophy, the life sciences and New Age) most recently with Lovelock's *Gaia* hypothesis. Considerable correspondences between Akan and classical Greek culture have been pointed out (cf. Graves 1964: I, 22f), and it is not impossible that one is indebted to the other, or that both partially derive from a common African source (cf. Arnaiz-Villena *et al.* 2001). But whereas in the Western tradition the idea of the World Soul has become a specialist and minority idea without vital anchorage in popular collective representations, in West Africa it has been an expression of widely held traditional wisdom as recorded in the 19th and 20th centuries.

Harding⁶⁷ in her critical writings (first from a feminist, then from a Third-World and intercultural-philosophical perspective) about the extent to which dominant modern, North Atlantic but effectively globalised, science can be called an ‘ethno-science’, just as local and as limited as all other forms of systematic knowledge production found in the world today – including astrology, African divination, etc. Harding extensively states the case for the view that it is especially North Atlantic global hegemony that supports science’s claims of being objective, rational, and universal. However, on closer analysis she yet sees no alternative but to admit, somewhat grudgingly, that this power constellation is not the only factor in rendering North Atlantic scientific knowledge valid. The validity of science, and hence the substantiation of its claims to objectivity, rationality and universality, are found by Harding to be largely based, after all, on internal epistemological and methodological conditions, that are in principle independent from power and hegemony in the modern world. This means that the Sceptics, however unsympathetic we may find them and however much we may be tempted to accuse them of Eurocentric intellectual hegemonism, yet have a point: not all types of knowledge production can lay a claim to truth, and in the scientific realm such claims are recognised by reference to explicit, state-of-the-art epistemological procedures governing the method by which knowledge is generated and expressed. Modern science thus deserves to be taken seriously, whereas divination (as the proto-science of a remote past of the same Western tradition) *by the same criteria* does no longer so deserve.

Still, this does not necessarily mean that the epistemological underpinnings of modern Western science make the latter *the only possible path to truth*. There could be alternative criteria that have been so far overlooked, and that the study of knowledge systems outside the North Atlantic may help us to identify. *Could African divination play such a sensitising role towards an intercultural epistemology?* Involving what would be ‘apparently irrational behaviour’ from a naïve North Atlantic viewpoint, African divination systems activate the epistemological ‘principle of charity’⁶⁸ to the effect that whatever others consider true, we may try to consider true as well, instead of simply dismissing it without serious reflection as to how and why others have come to their conviction, strikingly different though it may be. African divination systems represent knowledge claims not supported in the North Atlantic (hegemonically global) mainstream popularised science (although they turn out to be supportable by state-of-the-art North Atlantic research into quantum mechanics, philosophy of mind, and parapsychology). Among these knowledge claims made by African divination systems, the one allowing non-sensory sources of knowledge appears to be the most striking. Perhaps by virtue of explicitly allowing non-sensory sources of knowledge (and thus creating a wider socio-cultural framework as well as a specialist environment where it is much easier to lower the threshold blocking out non-sensory sources of information), African divination systems occasionally make these knowledge sources work and, again occasionally, may produce valid knowledge even though such is impossible by North Atlantic standards. We are reminded of the fact that epistemological conventions, both in the North Atlantic science and in African divination systems, are to some extent not universal but local and one-sided, and that a greater truth, beyond North Atlantic hegemony lies in the admission of the complementarity of knowledge production in different cultural traditions.

Finally, this qualified epistemological relativism (not the postmodernist denial of the possibility of truth, but the intercultural-philosophical admission of the equal rights of multiple, even contradictory truths, and the attempt to negotiate these contradictions by ways of practical wisdom that derive as much from Africa as from the North Atlantic) also constitutes a context for what would otherwise appear as contradictory: that in the present

⁶⁷ Harding 1997, 1993; cf. van Binsbergen 2007; Harding & O’Barr 1987.

⁶⁸ Cf. Davidson 1984; Malpas 1988; McGinn 1977; Lepore 1993.

argument I have both lavishly employed the findings of state-of-the-art science (in genetics, linguistics, archaeology, and anthropology), whilst at the same time advocating an epistemological framework in which such science would have to tolerate, next to it, alternative forms of knowledge production with different, but equally valid, claims to truth. In such a framework, the North Atlantic professor who becomes, and remains, a practising African diviner is no longer a desperate case of cultural and epistemological self-denial or self-hatred; it is an attempt at intercultural humility and at a transcultural learning process, not just about an African culture specific in time and space, but about the human condition and the structure of the universe. Thus the present epistemological section of my argument complements the preceding, prehistoric section in affirming Africa's rightful and original place, both in global cultural history and in global knowledge production.

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