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The 'Big Bang' theory reconsidered: Some thoughts on the fabric of early Ghanaian history

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Abstract

The ‘big bang’ theory – best articulated by Ivor Wilks in the late 1970s and recently revisited – is a complex heuristic monument that must be carefully deconstructed. Its claim that before the integration of forested West Africa into the European bullion market and the opening of the Atlantic trade, the forest dwellers of Ghana were hunters and gatherers has been convincingly disproved by archaeological findings during the last 15 years. Indeed, history as a discipline contains limitations that were too often underestimated in reconstructing fragments of the early history of forested Ghana, especially with regards to the ‘origins’ of an agrarian order.

However, we also observe that large-scale, deep change definitely took place before and during the Atlantic era, which echoes significantly with sections of Wilks’ theory. Some parts of the ‘Big Bang’ paradigm are therefore still useful as encapsulating genuine historical information and thought-provoking hypotheses, which, if adequately recontextualized, may help to open a new page of early African history.


Introduction

1 I thank Christopher DeCorse for contributing comments to the discussion and Rouven Kunstmann for providing editorial comments.
Since the 1960s, a number of scholars have concentrated on understanding the origins and development of African polities in the historic Gold Coast that appeared in the European documentary sources from the sixteenth century onward. Written and oral sources, linguistic and ethnographic data as well as the archaeological records have been used – and sometimes abused – to reconstruct the socio-political and economic histories of southern Ghana.

The fact that southern Ghana is an area largely covered by tropical forests was a decisive factor in the interpretation of sources. Historians often see the forest as a pristine and durable element of the landscape as well as a natural obstacle to socio-political development. This preconception played an important role in framing a long-term historical conceptual framework that gradually became accepted by the community of scholars under the generic name of the ‘big bang’ theory.

As we shall see in the following paragraphs, the ‘big bang’ theory - best articulated by Ivor Wilks - is a complex construct that must be carefully deconstructed, segment by segment.² In this paper, I am particularly interested in exploring the validity of the first section of the theory, which looks at the ‘origins’ and the early political developments of the forests’ dwellers of Ghana.

Basically – and this will be discussed below in greater details – the big-bang theory holds that before the fourteenth/fifteenth centuries, i.e. before the integration of southern Ghana into the European bullion market and the opening of the Atlantic trade, the forest dwellers of this part of forested West Africa were hunters and gatherers. It further stresses that the incorporation of the area into the world market resulted in drastic changes in the social fabric and in the formation of polities.

² See I. Wilks, Forests of Gold. Essays on the Akan and the kingdom of Asante (Athens, Ohio, 1993). This work is examined in detail in the following discussion.
From the mid-1990s, following the work by Peter Shinnie at Asantemanso, archaeological evidence emerged that contradicted the chronological implications of the ‘big bang’ theory. Before then, archaeological data, which lacked a strong interpretative framework as well as sound chronological foundations, had been made to fit the big-bang theoretical mold. However, at Asantemanso, in the forested heartland of Ashanti, Shinnie excavated a settlement dating back to the 9th century AD. The presence of large and durable settlements in the forest in the first millennium AD contradicted the main stream big bang theory.

From the mid-1990s to the mid-2000s, I was engaged in oral historical research in an area of Central Coastal Ghana dominated by a coastal polity known as Eguaf. Over the years, I surveyed and excavated sacred groves in the Komenda-Edina-Eguafo-Abrem (KEEA) district of the Central Region of Ghana, and established a correlation between sacred groves and ancient settlements dating from the first millennium A.D. to the seventeenth century. The study of the groves led me to the rediscovery of large entrenched settlements dating back to the first millennium AD. Archaeological data gathered from such settlements and the reinterpretation of previous works at similar sites were inconsistent and irreconcilable with the ‘hunters and gatherers’ hypothesis put forward by the tenets of the big-bang theory, suggesting that the long-term chronology of socio-political development in the forest zone of Ghana – and beyond - ought to be revised. They open the door to a new interpretation of the

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4 This research was partially supported by a National Science Foundation, Senior Research Award (NSF BCS-0542412). Doctoral research by Gérard Chouin was assisted by a National Science Foundation Dissertation Grant (BCS: 0203271), a fellowship from the IDRF Research Fellowship Program of the Social Science Research Council with funds provided by the Andrew W. Mellon Foundation, as well as Fellowships from the Maxwell School of Citizenship and Public Affairs, Syracuse University.
pre-Atlantic history of the Gulf of Guinea, and provide a framework for a different understanding of the history of forested West Africa.

For an untenured scholar to engage critically with a grand theory loosely informed by almost thirty years of scholarship may be quite a risky business in today’s academic world, especially in the micro-field of the history of Africa before the 20th century. A critical engagement is sometimes perceived as an aggressive and desperate way to carve out one’s own niche in the marginal, competitive and yet declining field of research of pre-nineteenth century African History. Critically assessing the scholarly achievements of pioneering researchers is sometimes considered as potentially weakening the heuristic foundations of a discipline that hardly survived its enthusiastic beginnings. Yet, I consider that in many ways, the relative inability of our sub-discipline to strive or sustain itself lies, among other factors, in its often conservative, including its lack of engagement with the theoretical frameworks that informed previous historical and archaeological works. In this paper, I critically engage with Ivor Wilks’ ‘big bang’ theory. By doing so, I attempt to understand how part of the historical and archaeological record of Ghana may have been misinterpreted. Yet, I also recognize Wilks’ powerful paradigm and explore ways it could be reengineered to revisit Ghana’s past.

Context

The study of state formation and political history has dominated the historiography of southern Ghana from the 1950s to the mid-2000s. Processes of socio-political and economic change, in connection with the southward expansion of Muslim trading communities from the Sahelian belt, the opening of the Atlantic trade and the establishment of European trade-posts
along the seashore, have also been the focus of much scholarship. Ghana also served as a pioneer front to explore issues of method and historical criticism, in the areas of both oral traditions/history and European written sources, especially travel accounts.

In the last decade, however, new research topics have taken over that reflect global trends in historical studies. Thus, research in gender studies, in contemporary politics, in consumption and market change in the age of colonialism and globalization, in education and elite formation has changed the historiographical landscape. The latter now emphasizes the study of the nineteenth and twentieth centuries to the detriment of previous periods or long-term considerations. This is a part of a global trend of marginalization of pre-nineteenth century African history. In the background stands a well-shared, although often not clearly articulated idea, that early African history was more and more out of reach of contemporary scholars because of the alleged disappearance and remoteness of sources, etc. Thus, the early history of West Africa largely remains today as it was written from the 1960s to the early 1990s, during the golden age of African historical scholarship. There is an urgent need to

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critically revisit this body of scholarly works, in a constructive way, and to add to these foundations.

Early Portuguese sources attest that Europeans encountered communities politically organized, on a territorial basis, in hierarchical societies led by a leader.\(^8\) Details of this early socio-political organization remain unclear. The lack of written sources and the absence of oral traditions - other than potentially helpful myths -, have made it difficult for historians to study such a remote period of time. It follows that the scholarly literature about state formation and consolidation in southern Ghana concerns mainly political entities that arose from the seventeenth century onward such as the Denkyira, Asante, Akyim, Akwamu etc. All of these states, however, developed within the specific context of the steady expansion and competition between trans-Atlantic and trans-Saharan trade networks. The fact that the rise of these states is well documented does not allow historians to present them as exclusive pioneers of socio-political complexity or to use them systematically as analogical models for undocumented pre-existing socio-political systems. Clearly, the absence of certain past events in the records does not impede them from having taken place. Historians seem to have been captive to their sources, both oral and written, which notably seldom antedate the 1500s. They thus tend to skip the long-term dimension of the history of southern Ghana because such history goes beyond the qualitative dimension of their sources. According to these historians, most major historical events such as: the founding of lineages; the deforestation and the beginnings of agriculture; as well as complex settlements would find their “origins” in the fifteenth and sixteenth centuries, i.e. at the time written sources first become available. Is this by a stroke of good fortune? I believe it is a survival of a positivist way of writing history. These “founding” events are in fact piled pell-mell at the margin of the ‘historical time,’ but not too far, for need to serve as eponym events, the first stones of the historical discourse.

\(^8\) J. Ballong-Wen-Mewuda, La vie d’un comptoir portugais en Afrique Occidentale (Lisbon, Paris, 1993); Hair, The founding, passim.
This forms what I call a ‘trompe-l’oeil’ effect. Although I agree with Ivor Wilks that it would not be intellectually stimulating for historians to inhibit their “spirit of free inquiry”,9 I believe that what belongs to the domain of free inquiry should be clearly tagged as such, to avoid confusion. This would encourage archaeologists to be cautious and to challenge historical discourses built on these speculations based on “an informed way”10 (Wilks 1993:xiv).

Ivor Wilks and the ‘Big Bang’ theory: an assessment

Ivor Wilks provided the most wide-ranging treatment of Akan origins and early African state formation in southern Ghana. He pioneered the interpretation of the early history of the forest communities of Ghana. Through a series of foundational papers, he proposed a ‘big bang’ model of socio-political complexity in southern Ghana. According to this ‘explosive’ hypothesis, the fifteenth and sixteenth centuries were crucial to the emergence of complex societies. This theory has remained largely accepted and unchallenged with the exception of a few archaeologists who have found it difficult to reconcile this presentation of the past with emerging archaeological data. Here, I present a critical analysis of the ‘big bang’ theory.11 I underscore that it is not my purpose to dismiss the theory as a whole, but to show that some of its components are methodologically disputable, especially with regard to its chronology.

Portions of the theory were first enunciated by Wilks in articles published between 1977 and 1982.12 It was then substantially revised and presented in the first three chapters of *Forests of Gold* a collection of essays on the Akan world published in 1993 and focusing mainly on the genesis of different aspects of nineteenth century Ashanti. The first article,

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9 I. Wilks, *Forests of Gold. Essays on the Akan and the kingdom of Asante* (Athens, Ohio, 1993), xiv. This work is examined in detail in the following discussion.
11 For example see C. R. DeCorse, ‘Coastal Ghana in the first and second millennia AD: change in settlement patterns, subsistence and technology’, *Journal des Africanistes*, 75 (2005), 43-52; Shinnie, ‘Early’, 195-203.
entitled “Wangara, Akan, and Portuguese in the Fifteenth and Sixteenth Centuries”, assesses the involvement of the Mande and, later, the Portuguese in the gold trade within what is now known as the Akan area, in relation to the continental bullion market during late medieval and early modern times. The article suggests that Mande merchants specialized in the gold trade may have settled in the northern fringe of the forest circa 1350-1450.

Although Wilks’ chronological framework for Mande settlement in the northern forest margin may be valid, the chronology of the gold trade is constrained by the trading rather than the producing side. The settlement of Mande merchants in the forest fringe from the mid-fourteenth century onward does not imply simultaneity with the beginnings of gold production. On the contrary, the settlement of the Mande groups might be seen as an indicator of a pre-existing trade based on an already well-established gold production industry. This is suggested by Wilks himself who writes “everything we know of the Wangara suggests that they would have targeted only a prospering community for settlement”. It follows that gold production in the forests of Ghana began before the mid-fourteenth century and although the Mande, and later the Europeans, contributed to the shaping of it, they did not initiate it. Indeed, archaeological evidence indicates that gold was likely already being traded on the Ghanaian coast in the eight century AD.

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14 Wilks, Forests, 18. Oliver Davies, following Raymond Mauny, noted that gold production in the upper Niger and possibly in other areas likely developed prior to the trans-Saharan trade. This supposition was based primarily on textual evidence Davies noting that, as there were no descriptions of Arab miners prospecting in regions to the south, gold extraction was likely developed locally, growing in importance when the demand rose. See O. Davies, West Africa Before the Europeans: Archaeology and Prehistory (London, 1967), 249; I. Mauny, ‘Essai sur l’histoire des métaux en Afrique occidentale’, IFAN xiv (1952), 545-93; I. Mauny, ‘Tableau géographique de l’Ouest africain au moyen age’, IFAN Mémoires 61 (1961).
15 Material excavated from the Coconut Grove site on the Ghanaian Coast, securely dated to the eight century AD, includes a gold bead, as well as evidence for iron production. The gold working technology consists of cold hammered foil, distinct from the lost wax casting characteristic of Akan gold working in the seventeenth century and later. See C. R. DeCorse, An Archaeology of Elmina: Africans and Europeans on the Gold Coast, 1400-1900 (Washington, 2001), 125-127. For a preliminary report on Coconut Grove excavations see DeCorse, ‘Coastal’, 43-52.
Another important point discussed by Wilks in this article is the importation of slaves into the Gold Coast by the Portuguese during the late fifteenth and sixteenth centuries. The purchase of slaves by Africans on the Gold Coast is presented as both evidence of change in social structure and in the nature of the forest landscape: “In the fifteenth and sixteenth centuries a strong demand for labour arose in forest Akan society as local entrepreneurs, the aberempon, sought to increase the extent of the cleared land available for tillage.” This interpretation has been contested by A. Norman Klein but, in the absence of direct sources, Wilks’ hypothesis cannot be dismissed. Yet, slaves might have been purchased for different reasons: many were probably used in the transport of trade goods while others might have afforded a way of ‘capitalizing,’ in the etymological sense of this word: accumulating people to increase the number of dependents. Though, it is highly probable that some of these slaves became involved in forest clearing, farming, as well as in other productive activities.

The second article published by Wilks in Forests of Gold, entitled “Land, Labor, Gold, and the Forest Kingdom of Asante: a Model of Early Change,” is the keystone of the ‘big bang’ model. This synthesis is notably interdisciplinary in perspective, although it relies on two fundamental hypotheses that are contestable. The central argument is the claim that tropical and inter-tropical forests are not environments ordinarily conducive to the emergence of large-scale polities. For Wilks, the Akan are a remarkable exception that must be the product of a particular history. He believes this exception is rooted in the transformation “from an economy based primarily on hunting and gathering (foraging) to one based primarily on food crop production (agriculture)” a transition that, he argues, took place between the fifteenth and the seventeenth centuries, within the context of a developing world bullion

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According to him, such a transformation to agricultural subsistence implied large forest clearings, which were made possible by the availability of an enslaved labour force. In Wilks’ view, the founding of Akan matriclans, which he places in the sixteenth century, was interrelated with the new system of production, for matriclans allowed the social integration of slaves, commoners, and the distribution of people “in order to facilitate the organization of labor”. According to him, such transformations resulted in extensive social change during the sixteenth and seventeenth centuries.

This reconstruction of the past takes the form of an upside-down pyramid, its stability mainly relying on the basic postulate that before the fifteenth century, people of the Akan forests were hunters and gatherers living ‘lightly’ on the land. Wilks’ chronological perspective of such a chain of events is primarily based on three sets of data: the archaeological record, Akan oral traditions and written sources produced by Europeans, all of which require critical assessment.

The material derived from oral sources, especially the genealogical tables, are convincing as far as the history of matriclans is concerned, but they do not tell us anything about pre-sixteenth century subsistence practises. Wilks’ use of the History of Ashanti Kings and the whole country itself, a “recension of traditions (…) written in 1907 at the dictation of Asantehene Agyeman Prempeh, then in the Seychelles”, is a welcome addition, but the suggestion that it “appears to recount early stages in the transition from dependence on

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18 Wilks, Forests, 41.
19 Wilks, Forests, 82.
20 A more detailed critique of the data drawn on by Wilks is provided by in G. L. Chouin, Forests of Power and Memory: An Archaeology of Sacred Groves in the Egufo Polity, Southern Ghana (500-1900 A.D.) (Ph.D. Dissertation, Syracuse University, 2009). Wilks’ interpretation of the archaeological data is representative of the difficulty historians and archaeologists alike sometimes have in assessing each other’s data sets and evaluating the resulting interpretations. See G. L. Chouin and C. R. De Corse, ‘Trouble with Siblings: Archaeological and Historical Interpretations of the West African Past,’ T. Falola and C. Jennings, Sources and Methods in African History: Spoken, Written, Unearthed (Rochester, 2003), 7-15; DeCorse, ‘Varied’.
foraging to dependence on cultivation” 23 is an uncritical evaluation of the available data. While the origins of agriculture in the West African forest are far from clear, it can be assumed that the iron producing populations that occupied southern forest during the first millennium AD and earlier were agriculturalists. 24

Finally, European sources, although useful in documenting the sixteenth century import of slaves and the production of gold, 25 are sometimes used in a very problematic manner. Thus, a single sentence 26 in Dupuis’ 1824 account is presented as evidence that, in the first half of the nineteenth century there survived “communities of those who still depended, seemingly almost exclusively, upon an older mode of production: the exploitation of the food resources of the natural forest”. 27 Such an analogical argument, using a nineteenth century European source to support an hypothesis about modes of production in the Guinean forests four centuries earlier, needs careful evaluation. Further, the use of Reindorf (1895) and Rattray’s (1916) accounts of the story of Abu and the origins of matrilineages 28 does not take

23 Wilks, Forests, 65.
24 Direct evidence for agriculture and the domestication of animals in West Africa is limited, particularly in the forest. For general overviews see M. Aldenderfer, ‘Editorial: The Continuing Conversation about the Origins of Agriculture’, Current Anthropology, 50-5 (2009), 585; B. D. Smith, The Emergence of Agriculture (New York, 1995); T. Shaw, P. Sinclair, B. Andah, and A. Okpoko (eds.), The Archaeology of Africa: Foods, Metals and Towns (New York, 1993); J. R. Harlan, J. M. J. de Wet, and A. B. L. Stemler (eds.), Origins of African Plant Domestication (The Hague, 1976). In Ghana, the Kintampo complex (circa 2000-1000 BC) including such features as larger ceramic assemblages, ground stone and grinding stones, long term settlements, clay figurines, domesticated ovicaprids (sheep and/or goats), and exotic trade materials, is considered to be associated with more intensive exploitation of plant resources, if not agriculture. Although Kintampo sites are primarily located in the northern savanna, the Boyase Hill and Buruboro sites are located well to the south. The full distribution of the complex is, in any case, presently unknown. Evidence from the forest, including settlement data, well developed ceramic traditions, iron production, and evidence for gold working in sites of the first millennium AD are all characteristics generally associated with well settled agricultural communities. While such attributes cannot be considered as an integral package, the presence of all of them without agriculture would require explanation. For discussion of the Kintampo see J. Casey, The Kintampo Complex; The Late Holocene on the Gambaga Escarpment, Northern Ghana, British Archaeological Reports, International Series 906 (2000); A. B. Stahl, ‘Intensification in the West African Late Stone Age, in Shaw, Sinclair, Andah, and Okpoko, Archaeology, 261-273; D. Watson and J. Woodhouse, The Kintampo Archaeological Research Project (KARP): Academic Collaboration and Field Research in Ghana’, Antiquity 75, 290 (2001), 813-814.
25 Wilks, Forests, 72-78.
26 Dupuis describes the village of Esiankwanta on the Cape Coast road as “another little dirty croom [village], inhabited by forty of fifty families, who depend for their support upon the range of the forest”, from J. Dupuis, Journal of a Residence in Ashantee (London, 1824), 58.
27 Wilks, Forests, 50.
into account the fact that similar accounts are found elsewhere in West Africa, for instance in seventeenth century Senegal,\textsuperscript{29} and could very well represent a wandsagen.\textsuperscript{30} In fact, Wilks does not draw on a body of evidence strong enough to argue that, prior to the fifteenth century, forest subsistence strategies consisted of hunting and foraging. Subsequently, the proposed transformation to agricultural production during the sixteenth and seventeenth centuries, coupled with extensive social change arising from the import of slaves, integrated into the society through matriclans, and the position of the forest economy in the world bullion market, needs further exploration and testing.

The third article in Forest of Gold about the genesis of the Akan order is entitled “Founding the Political Kingdom: The Nature of the Akan State”.\textsuperscript{31} It is in this article, which deals mainly with the early history of the Asante, that Wilks enunciates his ‘big bang’ theory:

“I advance, contrary to his [Rattray’s] evolutionary view, a “big bang” theory of Akan history. It comprises several theses. First, in the course of the fifteenth and sixteenth centuries, and in the forest country between the Ofin and the Pra, a foraging mode of production gave way to an agricultural one...Second, that in the course of this transformation the forest people reorganized themselves in a way such that the bands appropriate to the older mode of production were replaced by the matriclans appropriate to the newer...But third, that the transformation also engendered the emergence of political structures of a new kind: the aman.”\textsuperscript{32}

Here, the emergence of the aman--the Akan polities--is presented as a chain reaction-like process where those who controlled gold production and commercialization were also able to buy slaves. Using slave labour, they could clear large tracts of forest, which they then claimed as property. They formed a new class of “entrepreneurs” who quickly built states from their original estates.\textsuperscript{33}

\textsuperscript{29} Donelha in A. Teixeira da Mota and P. E. H. Hair, Description de la Serra Leoa et des Rios de Guiné du Cabo Verde (1625) par André Donelha. Lisbon (1977),131-135. We thank Imke Weichert for pointing out this source.
\textsuperscript{30} Vansina 1985: 90, 155-156.
\textsuperscript{31} Wilks, Forests, 91-126.
\textsuperscript{32} Wilks, Forests, 94.
\textsuperscript{33} Wilks, Forests, 95-96.
The ‘big bang’ theory incorporates the most substantive historical facts known for the late fifteenth- and early sixteenth century Akan forest and shapes them into interpretive hypotheses: the existence of the world bullion market, the importation of slaves from Benin, and the possible emergence of matriclans. Drawing mainly on Asante oral traditions, Wilks proposes an appealing model in which small territories developed into complex polities. In so doing, he tries to fill the gap between an alleged society of hunter-gatherers and a kingship–based society already attested in European sources of the sixteenth century.34 Once again, however, his theory is constrained by limited source material, and by retro-diction, that is writing history by glossing later sources to reconstitute the history of earlier, undocumented periods. In fact, archaeological and historical data do not suggest that before the fifteenth century, people living in what is now the land of the Akan, were hunter-gatherers.

In the same vein, late fifteenth or sixteenth century sources do not support the (r)evolutionary model proposed by Wilks. In this third chapter of Forests of Gold, for instance, two references are made to Portuguese sources. The first one, dating to the second half of the sixteenth century, and published by A. Teixeira da Mota and Paul E. H. Hair, refers to two polities in the hinterland: the ‘Acanes Grandes’ and ‘Acanes Pequanos.’35 As reported by Wilks, the Portuguese “knew that these places had ‘kings’ and they established communication with them”.36 However, we have no further details on the nature of such a kingship. We only know that some kind of political order, within specific territories, seemingly hierarchical, with towns and rulers existed in the 1550s. But the nature of European sources does not allow us to go much further as far as the hinterland is concerned. The

34 Wilks, Forests, 91-92.
35 Teixeira da Mota and Hair, East, 9.
36 Wilks, Forests, 91.
situation is slightly different on the coast, where a similar kind of political framework is sparsely but convincingly documented from the late fifteenth century.\textsuperscript{37}

The second Portuguese source used by Wilks is a 1572 Portuguese document that details how Portuguese colonists should exploit West African gold sources.\textsuperscript{38} It suggests that once a mine is found, a suitable “fortress” or “house” should be built for the whites, and a stockade and cottages for the blacks. The report further suggests that in addition to having Africans work the mines, some should also farm the surrounding lands in order to “sustain themselves, and, also, to provide sustenance for the miners”.\textsuperscript{39} Noting, rightly I believe, that this report emanated from someone with experience in Guinea, Wilks presents it as a mirror of local (African) practices and of “existing systems of material production”.\textsuperscript{40} Wilks subsequently made it a central piece of his theory: “The Portuguese ‘blueprint’ of 1572 associates gold mining, forest clearing, and food production, and implicitly postulates the existence of an appropriating class and a producing class. It is, I suggest, mutatis mutandis, a paradigm of sorts for the early Akan state”.\textsuperscript{41} This interpretation stretches the content and context of the 1572 source. Based on available information it is quite difficult to disentangle what pertains to the Akan social model from the Portuguese mental scheme for exploiting mines in a tropical setting, either in Africa or in the Americas.

The fact remains that the revolutionary chain of events proposed by Wilks is only shallowly grounded in the pre-seventeenth century past. While its various components may remain valid and provide path-breaking working hypotheses to better understand the

\textsuperscript{38} Wilks, \textit{Forests}, 95. This source was first published in A. Brásio (ed.), \textit{Monumenta missionaria Africana}, Volume 3 (Lisbon, 1952), 94. It was later reproduced by Ray Kea (Kea, \textit{Settlements}, 201-202).
\textsuperscript{40} Kea, \textit{Settlements}, 202.
\textsuperscript{41} Wilks, \textit{Forests}, 95-96.
development of the historic Akan political order, it projects the interpretation of the pre-fifteenth century past outside the realm of history.

In 2003, Wilks reiterated his ‘big bang’ model and its impact on small wandering bands of hunters and gatherers surviving in the high forest. A few considerations have been added to support the theory, including the possible role played by climate change and the introduction of American cultigens. However, emerging archaeological data, particularly work at Asantemanso by Peter Shinnie and Brian Vivian, could have usefully been incorporated. Wilks, however, maintains his 1993 position when, on the basis of preliminary findings, he tentatively argued that Asantemanso could have been:

“...a ritual center for hunting and gathering bands that in the course of time became, first, a place where sedentarization occurred, based upon the progressive utilization of domestic cultigens to modify an earlier dependence upon foraging, and, second, where the trend from reliance on domestic rather than wild resources led ultimately to population growth and the consequent search for more land to cultivate: to what we have referred to above as an expanding frontier of farming”.

In another article, “The Forest and the Twis”, Wilks further reinforces the ‘big bang’ theory. Here Wilks looks for evidence in the Akan cosmology and finds it in the corpus of Odomankoma tales. Odumankoma is a mythical and godly character—the Creator—who wandered from the Bron area to Adanse ‘making things’. Audaciously equating Odomankoma creations with his ‘big bang’ model, Wilks writes:

“… Odomankoma transformed one (Twi-speaking) world into another, but thereafter men and women took control of affairs. It is my contention that the Odomankoma of Akan cosmology should be read as mythopoeic [sic]

44 Wilks, Forests, 72.
45 I. Wilks, ‘The Forest and the Twis’, Transactions of the Historical Society of Ghana, New series, 8 (2004), 1-81. The article was later modified by the author and published under the same title in the Journal des Africanistes, 75, 1 (2005), 19-75. This version is available online in full (http://africanistes.revues.org/document188.html). In this article, we quote the 2005 version.
representation of the forces that totally transformed economy, society and culture in the forest zone of Ghana; that, in other words, Odomankoma and the ‘big bang’ are two ways of conceptualising one and the same thing”.

Wilk, however, stumble over the chronological depth of the Odomankoma texts, which he arbitrarily places between the fifteenth and the seventeenth centuries. In “The Forest and the Twis”, Wilk also draws on an array of documentary and archaeological sources, all of them well known and sometimes contestable. Particularly problematic is his use of radiocarbon dates. The radiocarbon dates drawn on are treated as a homogeneous body of evidence. They are not, for various reasons. The excavators’ research objectives, the archaeological contexts represented, and radiocarbon dates relationship to absolute chronologies need to be considered. Apart from these concerns, the existing radiocarbon dates are hardly representative of the archaeological landscape of southern Ghana. They consequently cannot be used as a framework of long-term history, for they represent only a few sites, located mainly in the northern fringe of the forest or in the Bron country. Arguably, they are best representative of the deficit of radiocarbon dates available for archaeological sites in the southern and central forest.

Apart from radiocarbon dating, Wilk also utilizes other archaeological inferences to defend his fifteenth century ‘big bang’ hypothesis. Most important among these are Timothy Garrard’s analysis of pottery disks as gold-weights and drastic change in the ceramic traditions that has been documented between 1500 and 1700 throughout the Akan area. On the one hand, Garrard’s interpretation of pottery disks as gold-weights is subject to caution.

48 Radiocarbon dates are used to address varied questions within the framework of specific research designs. Consequently, they may, or may not help in assessing a site’s founding date or total range of occupation. Dates that are obtained need to be considered within their archaeological contexts: their stratigraphic position and associations with other artifacts. Finally, the radiocarbon date’s relationship to absolute chronologies should be made clear for there is much confusion between the uncalibrated Conventional Radiocarbon Age (± 1 sigma), with or without C13/C12 corrections to the estimated age; the 2 sigma calibrated result (95% probability); and the 1 sigma calibrated result (68% probability). These details are key to interpretation and should always accompany dates (see comments in J. Vansina, ‘Historians, are Archaeologists Your Siblings?’ History in Africa 22 (1995), 380-381. For a general discussion radiocarbon dating and the evaluation of dates see S. E. G. Bowman, Radiocarbon Dating (Berkeley, 1990).
because of the small size of the sample he documented (28 in total).\textsuperscript{49} Other pottery disks found in recent excavations do not seem to correspond to any of the Islamic weight standards.\textsuperscript{50} On the other hand, the change in ceramic traditions in the Akan area is better documented. It has been observed by all archaeologists working on sites bridging the pre-fifteenth to the post-seventeenth centuries. The problem is not whether this transition occurred—it definitely did—but to interpret its implications in terms of the socioeconomic transformations.\textsuperscript{51} To explain such a transition, Wilks prudently writes: “for reasons of utility a fully sedentary people are not likely to require pots of the same design as their more mobile predecessors”.\textsuperscript{52} In fact, the answer surely has to do with social, cultural, and economic changes. We would, however, be very careful on the subject of mobility, for the archaeological evidence I presented elsewhere demonstrates that the people using these early ceramics were already living in durable\textsuperscript{53} agricultural settlements.

In spite of its limitations, “The Forest and the Twis” article provides the most comprehensive version of Wilks’ ‘big bang’ theory. For the first time, he softens the chronological framework of his proposed model of change, and accepts the idea that some transformations were at work before the fifteenth-seventeenth century ‘big bang’. Nevertheless, Wilks maintains that there was no “fully formed agrarian order” before the opening of the Atlantic trade.\textsuperscript{54} However, archaeological data, particularly relating to

\textsuperscript{49}T. Garrard, \textit{Akan Weights and the Gold Trade} (London, 1980), 29, 42. Garrard refers to several dozen additional pottery disks, but he does not provide a discussion of their weights (Garrard, \textit{Akan}, 221).


\textsuperscript{51}C. DeCorse, \textit{An Archaeology of Elmina. Africans and Europeans on the Gold Coast, 1400-1900} (Washington and New Yorkn 2001), 118.

\textsuperscript{52}Wilks, ‘Forest’, 56-57.

\textsuperscript{53}I prefer to avoid the term ‘permanent’ as there is currently insufficient information on settlement patterns and occupation. However, the current data on earthworks and associated midden deposits indicates more than temporary, fortified encampments.

\textsuperscript{54}Wilks, ‘Forest’, 52.
earthworks, are emerging that force us to think otherwise, and to envisage a radically different historical process.

**Massive but yet invisible: the paradox of first millennium urbanization and land transformation in forested West Africa**

Archaeological works I conducted at the Akrokrowa earthwork demonstrated that the *Forest of the Twi* had been long and durably settled by an agrarian order before the opening of the Atlantic trade. Similar sites recently excavated by Boachie-Ansah confirmed early dates as well as durable occupation of earthworks. A reevaluation of available radiocarbon data from the Birim Valley demonstrates the same. Earthworks in Ghana are definitively anchored in the first millennium, even though some were also resettled and transformed in the second half of the second millennium after a period of abandonment.

Earthworks are massive. At Akrokrowa, a medium size earthwork, it had a perimeter of almost 1 km, enclosing an area of 61800 m². The original depth of the ditch was of about 5.6 m and about 12 meters large at the top. It is difficult to really figure out the exact original height and shape of banks, but they too form specific topographical features in the landscapes.

Beyond Ghana, most countries sharing the West African forest belt also have earthworks. The most massive known so far are located in Nigeria where they have been partially surveyed by Connah and Darling. The largest identified so far, Sungbo Eredo, runs for about 160km, with a ditch that reaches the record depth of 20 meters at some spots while seemingly being very shallow at others. Sungbo Eredo is among the most massive man-made monuments in

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56 Voir Chouin and DeCorse, ‘Prelude’, 129 n. 22.
57 Voir Chouin and DeCorse, ‘Prelude’, 127-33.
Africa, with an estimated 3.5 million cubic meters of moved earth and sand.\textsuperscript{60} A test unit opened on the bank near the village of Oke-Eri by Joanne Ogiogwa in 2012 revealed a structure quite different from that I recorded in Ghana.\textsuperscript{61} Indeed, at Akrokrowa, banks were made of fine, sorted and compacted clay without much inclusions.\textsuperscript{62} At Sungbo Eredo, on the contrary, the bank was built with sand capped with a thick layer of lateritic clay which provided stability and protection against the rains. The stratigraphy clearly shows successive layers of sand which need to be interpreted for a better understanding of labor organization as well as for provision of data to estimate of the time that was necessary to erect the banks.\textsuperscript{63}

Sites such as Akrokrowa and Sungbo Eredo are not sparsely distributed in the landscape. On the contrary, they may well have been ubiquitous in first millennium settlement system. They often do appear in groupings although we do not know if the latter are testimonies of coexisting neighboring settlements or even well-structured polities, expressions of demographically dynamic communities that expanded on a territory or sometimes remains of a unique settlement that shifted from one site to the other in a long period of time. Together with low and high-ground open villages and hamlets, they formed a complex settlement network that structured an ancient landscape, a palimpsest yet to be retrieved. Curiously, although they seem to be found in large numbers in the forest belt extending from Nigeria to Côte d’Ivoire, these sites are still quite invisible in the academic discourse. In spite of their monumental nature, they have seldom been reported and investigated.

Although originally presenting large ditches and high banks, many have been severely eroded and have become very discrete in the landscape. Such erosion is even worse in areas

\textsuperscript{60} P. J. Darling, ‘Sungbo Eredo – Evidence of Past Dune Formation Near the Coast ?’, Past shifts of Desert and Forest across Nigeria (Bournemouth, 2001): 112. Such an estimation needs to be taken with caution.
\textsuperscript{61} Joanne Ogiogwa is a Ph.D. candidate with the Department of Archaeology and Anthropology, University of Ibadan, Nigeria. Her excavations at Sungbo Eredo are part of her doctoral research. She received support from IFRA-Nigeria in the form of a fieldwork grant in 2011-2012.
\textsuperscript{62} Chouin, Forests, 578-584.
\textsuperscript{63} These details were noted by the author during a visit to the site in April 2012. Work by Joanne Ogiogwa is still in progress.
encroached by urban development where even much recent, monumental defensive city walls have been entirely swallowed. In Ibadan, for instance, nothing remains of the town walls which could still be traced in the early 1960s.  

Early, eroded, systems of banks and trenches can easily disappear under similar circumstances. Similarly, the practice of mechanized ploughing by some rural communities also contributed to the leveling of such early sites. During a recent visit on the site of the ancient Yoruba walled town of Ika, located near the village of Idi-Iroko, in the Akinyele Local Government area of Oyo State, I was surprised to realize that the wall and ditch system had been so much leveled that I found it extremely difficult to identify it as such. Only local farmers could point out some shallow depressions and remembered that such depressions used to be much deeper a few decades back. Many of these sites have become almost invisible in the landscape as a result of human activities, in such a way that it is practically impossible to differentiate them from natural topographic occurrences during walking surveys.

This lack of visibility is worsened in the case of older sites due to physical as well as memorial erosion. Indeed, when there is no more historical connection between the site and the people living on the land, topographic features associated with early sites are often reinterpreted by successive generations. For instance, in the local discourse, eroded trenches may become evidence of old routes or long dried-up bed of rivers. This is a discourse I heard when I first came across the Akrokrowa site in 2001. The well-preserved trench was said to be a forgotten arm of the River Prah.

Forest cover and thick vegetation also contribute to the existing gap in knowledge about such ancient settlement sites. Both strongly limit the use of air photographs or satellite imagery. At

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64 This statement is based on field research at conducted at Ibadan in 2011 purposefully to locate remains of the defensive walls.

65 Field notes, interaction with Pa Ogunjimi Adio, Idi-Iroko, 18 April 2012.

66 Chouin, Forests, 513.
Oke-Ori, at the site of Sugbo Eredo mentioned above, a massive structure made principally of a high bank, is entirely covered with large trees and thick brush which makes it invisible to the naked eye, even if one is standing only a few meters away (see photographs below).
Conservative academic discourses about forested West Africa also promulgated the invisibility of features pre-dating the opening of the European-induced Atlantic trade. The ‘big-bang’ theory and derived discussions are part of such intellectual obstacles to the academic exploration of pre-fifteenth century history in today’s southern Ghana. Even path-breaking archaeologist Kiyaga-Mulindwa found himself compel to interpret the earthworks of the Birim Valley in the framework of Wilks’ theory, transforming obvious first millennium sites into second millennium artefacts of a history that never was. In the Birim Valley, earthwork sites he excavated showed clear evidence of a first millennium occupation preceding a period of abandonment, and a period of reoccupation dating in the second half of the first millennium. Unable to extricate himself out of the ‘Big-Bang’ discourse, he rather interpreted the archaeological record as evidence of post-fifteenth century large-scale population replacement in the context of a growing market for slaves.67 Finally, poor scholarship also caused earthwork’s invisibility, especially in Nigeria. Very crucial discoveries and survey works on Benin, Ishan and Ijebu earthworks conducted by Darling in the 1980s and 1990s, had the potential to radically change our understanding of pre-fifteenth century Nigerian history and to prepare ground for additional works. Unfortunately, almost no archaeological excavations followed and available radiocarbon dates remain rare and not too satisfactory context-wise.68 Lack of sound scientific research contributed to the lack of visibility of this unique site as also did fantastic and amateurish interpretation of Sungbo Eredo, in Ijebuland, as evidence of Queen of Sheba’s lost kingdom.69

67 See Chouin and DeCorse, ‘Prelude’, 131 (table 1).
69 The “Queen of Sheba” story has been consistently used and abused by the media to attract attention on the site.
‘Big bang’ as Black Death: some thoughts on radical societal changes in the second millennium West African forest environment.

The genius of Ivor Wilks is to have perceived that West African forest communities had gone through radical societal change during the second millennium AD. The ‘big-bang’ analogy was a powerful way of rendering the idea that such process of change had occurred on a large-scale, and had been deep, sudden, rapid, and extremely de/restructuring. The little we know about the archaeological record tends to confirm such a view. In fact, Ivor Wilks’ intuition was probably right, but the conceptual tool kit he used was not appropriate. His evolutionary theoretical framework, limitations of historical sources, misinterpretation of archaeological data as well as the focus on the opening of the Atlantic trade as igniter of the ‘explosive’ process of change were drawbacks that drove the ‘big-bang’ bandwagon into a historiographical dead end.

The challenge for scholars is now to reengineer the ‘big-bang’ theory in an attempt to reinvestigate the question of societal change and open a new chapter of the history of Africa before the fifteenth century. Definitively, the opening of the Atlantic trade brought much economic, political and social change. Such level of change, and the fact that it is quite well documented compared with previous periods, has had a blinding effect on scholars. In fact, I believe change related to interactions with European actors has masked another process of change, much more brutal and rapid, that completely modified West African societies before the first European vessel had even appeared in the Gulf of Guinea. Indeed, preliminary archaeological data seems to indicate that settlement patterns inherited from the first millennium AD were abandoned on a large-scale by the fourteenth century. This is mostly visible in earthworks which, after been occupied continuously for several hundred years were suddenly abandoned by their inhabitants. This large-spread wave of abandonment is yet to be confirmed at the scale of the West African forest zone. In an earlier article, I suggested that
such a dramatic rupture with a previously successful model of sociopolitical organization
could have resulted from a severe demographic crisis in relation with the advent of pandemic
Black Death.\textsuperscript{70} From a chronological perspective, the timing fits perfectly similar outbreaks of
Black Death in Asia, Europe and North Africa. Abandonment of settlements in reaction to
abnormal mortality is well documented in West Africa before the twentieth century.
Abnormal mortality was (and still is) often attributed to hostile invisible forces and escapism
was the usual strategy used by communities once all available spiritual means to guaranty
their protection had been exhausted.\textsuperscript{71} Mortality of Black Death in Europe varied from 30 to
50\% from one community to another, and death generally massively occurred in a few days.\textsuperscript{72}
In the rest of the known world, death challenged the established sociopolitical order,
providing new social, political and economic opportunities for people who did not belong to
the elite class. Hierarchies shifted, religious practices were deeply affected and the surface of
cultivated land withdrew as the lack of laborers in the fields allowed the forest to reconquer
farms. The abandonment of ancestors’ settlement, conjugated with the sudden death of a
sizable part of the population - elite and working class alike -, the failure of religious practices
and established cults to contain the ravaging mortality would have had very destructuring
consequences on social, political and economic structures. Within a decade or two, people
would have seen most of their inherited social structures and way of life collapsing, while
new ones would have gradually taking over: new settlements, new hierarchies, new spiritual
forces, etc… Like in medieval Europe, forest would have rapidly reconquered territories
abandoned by farmers, giving strangers the impression of a primeval land. This is a scenario
that historians and archaeologists urgently need to explore under a redefined ‘big bang’

\textsuperscript{70} Chouin and DeCorse, ‘Prelude’, 142-144.
\textsuperscript{71} In southern Ghana, I came across many traditions mentioning settlements abandoned because of deadly
\textsuperscript{72} For a discussion of figures during the 1348-9 epidemics in England, see for instance J. Aberth, ‘The Black
paradigm, for two reasons. The first reason is that the ‘big bang as black death’ theory proposes a discourse about the origins of modern African societies that is no more only centered on the Atlantic experience. The opening of the Atlantic trade becomes part of a longer historical experience, alternatively connected. The second reason is that it also paves the way to the rediscovery of a long-forgotten first-millennium West African society that invented a model of tropical agrarian society and dominated the whole of the gulf of Guinea for close to a millennium, giving birth to refined technological industries of which we know close to nothing.

**Conclusion**

The ‘big bang as black death’ theory rests on a set of assumptions derived from recent trends in ‘connected’ or ‘global’ history. The first of this assumption is that it is not conceivable that sub-Saharan Africa would have been preserved by a pandemic that affected absolutely all parts of the known world, in similar ways, from the eastern confines of Asia to the most western parts of Europe, and from the northern European regions to North Africa and the Arabic peninsula. To be preserved, sub-Saharan societies would have to have been hermetically isolated from the rest of the world. This comes in contradiction with several decades of African historical research have demonstrated that Africa never was isolated from the rest of the world. Trans-Saharan routes as well as long-term extensive exchanges with the East have long being very precisely documented.

The second assumption is that preliminary archaeological data emerging from Ghanaian earthworks are representative of events that occurred more or less simultaneously in the whole of the forested zone structured by embankments, from Nigeria to Côte d'Ivoire. Unfolding, small-scale current projects based on very limited funding should allow new data to emerge
from Nigeria in the following months and years. Similar projects need to be encouraged in Côte d’Ivoire.

Finally the third assumption, which holds only if the previous ones are verified, is that Black Death was the cause of the large-scale abandonment of earthworks and subsequent desurbanisation of forested West Africa.

The ‘big bang as black death’ theory will remain fragile until large regional historical archaeological projects focus on earthworks and deploy multi-disciplinary research strategies that will address the assumptions listed above. Beyond validating or negating the renovated ‘big bang’ conceptual framework, such projects will definitively contribute to open new and decisive chapters of the pre-nineteenth century African history book which some of us regularly lament finding so thin and dusty compared with the massive and fast-renewing academic literature about contemporary Africa.