

## Brief Descriptions of African-centered Research Methods

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This chapter introduces and describes 22 African-centered research methods. They range from the ancient Egyptian Rekh method to the contemporary Kwame Nkrumah's Consciensist method. Together, these research methods offer a healthy corrective and/or augmentation to the preceding Western/Eurocentric methods for the scientific investigation of African phenomena.

### **Rekh Methodology**

Bangura (in press) informs us that Rekh means knowledge: to know, to be wise, to be acquainted with, become skilled in an art or craft. It is a framework that was used by ancient Egyptians. The Yoruba, a Nigerian ethnic group, used an equivalent concept of knowledge named *Imo* which implies first-hand knowledge involving *naming* and *action*. This knowledge is acquired through direct observation or contact with knowledge rather than being told (Irele 2010).

Falola in *Yoruba Gurus* (1999) shows that despite lacking certificates and connections to the Western academy, Africans were able to construct knowledge through local histories. However, their contributions were misrepresented, ignored, or marginalized by those who got the information as second-hand accounts of the histories. Second-hand knowledge is not very reliable, since distortion is likely to occur as the knowledge is passed on. If one can observe what they have been told

in an account, then second-hand knowledge translates into first-hand knowledge (Babatunde 2015; Bangura in press).

Acquisition of knowledge is like a journey. According to the Yoruba, their environment is the basis of all knowledge and their experience informs their existence. The deities oversee their lives, since they cannot change anything around them. The Yoruba have other sources of epistemologies like life histories, religion, contacts with Arabs, language, post-colonial influences, traditional religion and indigenous culture, and Yoruba kingdoms, to name a few. Alternative sources and action postulates are therefore imperative for knowledge acquisition.

Alternative sources include naming the postulates which are propositions that suggest the existence of facts or truth about a word or set of words by which a person, animal, place or thing is known, addressed or referred to as a basis of reasoning, discussion or beliefs. Such names include the academy, Christianity, Esie images, imam, Oyo-centricism, etc. (Bangura 2015a).

Action postulates are propositions that suggest the existence of facts or truths about processes of doing things, typically to achieve certain aims as a basis of reasoning, discussion, or beliefs. Such actions include deification of heroes, elite formation, use of history, etc.. Bangura reiterates Falola's argument that both history and alternative histories should be allowed to co-exist so that none dominates the other. This will lead to a vibrant intellectual culture, necessary for theory building and a basis for new knowledge (Bangura 2015a).

## **Utchā and Uhem Methodology**

*Utcha* and *Uhem* are words from ancient Egyptian language or Hieroglyphics. *Utchā* means to rectify facts while *Uhem* is a method used to narrate, recount, repeat, and tell a story or a dream. They were both literary methods used simultaneously in ancient Egypt (Bangura 2015a). Scholars used *Utchā* to rectify misperceptions and misrepresentations, to judge, to decide and to establish a balance, as popularized in Papyrus Atanasi I. The *Uhem* approach was introduced by Amen-Re, king of the gods, and used by professional orators, proclaimers, narrators, tellers, heralds, registries and lay priests. Bangura, in his book titled *Toyin Falola and African Epistemologies* (2015a), demonstrates that in Falola's first two books, he set out to rectify misconceptions of the Yoruba and other African cultures and issues, using the *Utch* methodology. In his next 12 books, Falola went on to offer the correct perspectives of African cultures using the *Uhem* methodology. Bangura was able to tease out this usage of *Utch* and *Uhem* by analyzing the contents of Falola's 14 solely-authored books.

According to Manheim and Rich (1981), cited by Bangura and Hopwood (2014), content analysis is a quantification method involving the systematic counting, assessing, and interpreting of the form and substance of communication. It enables the characterization of physical evidences of the functions of and correlation between related data. These could be words, terms, themes, characters, paragraphs, and items (Jones 1971). The steps in content analysis include: specifying the population and unit of analysis, sampling, developing categories, and coding the data (Bangura and Hopwood 2014).

In analyzing Falola's *Counting the Tiger's Teeth: an African Teenager's story* (2014) and *The African Diaspora: Slavery, Modernity and Globalization* (2013), Bangura (2015a) focused on the paragraphs and themes as two units of analysis. Themes were identified from each paragraph and categorized either as Utch or Uhem. A scholar engaged in a historical study would find these methodologies useful in identifying misrepresentation and distorted information and set out to look for the real accounts.

### **Archaeoastronomical Methodology**

Archaeoastronomy is the scientific study of ancient astronomies in their cultural contexts by utilizing archaeological and anthropological evidence. Archaeoastronomy, like archaeology, is a science that delves into social phenomena by use of social questions. In attempts to provide viable interpretations of social phenomena under study, the archaeoastronomer invokes existing social theories. Bangura analyzes various aspects of Falola's vast production to provide a wide and rich discourse in Archaeoastronomical Methodology that captures a variety of angles and various insights (Bangura 2015a). One thing is certain: there is an African epistemology based on African indigenous knowledge, and Africans' way of conceptualizing African indigenous knowledge has gained attention and acknowledgement as another form of science that can be used to explain phenomena and socio-cultural realities of diverse African societies (Emeagwali and Shizha 2016). In order to write about Africa and African people, one needs to engage with subaltern African vernacular (Dartmouth University 2015).

The term 'archaeoastronomy' has rightly come to define a field concerned not only with the disposition of monumental construction and landscapes but also with artefacts, iconography, inscriptions, historical documentation, and written accounts. In other words, archaeoastronomy has been used to analyze every conceivable form of data that might provide insights into thoughts and practices relating to astronomy in the past (Ruggles 278). This is well captured

and compressed by Bangura's analysis on Falola discourse on African indigenous knowledge. Other examples include display of power, myth and cosmology, use of calendar, alignment analysis, artefactual analysis, and symbolic analysis.

The methodology's sources include both written and archaeological remains, and it embraces calendrics, practical observation, sky lore, celestial myth, and more. Its true scope establishes it as an 'anthropology of astronomy'. For example, 'the song of rape' by Falola tells the history of agriculture in the Yoruba cities. The nexus between history and references to penis and vagina hinges on the fact that like all Yoruba cities, Ibadan relied on agriculture. The farmers believed that nature and spiritual forces must intercede for crops to grow and yield bountiful harvests. For the land to manifest leniency to farmers, the deities of fertility must be asked to intervene. Like most African groups that have deities of fertility, the people of Ibadan also have gods and goddesses of fertility that are venerated for bountiful crops and humans during the carnival of Oke hill. Reproduction is, therefore, sought through the sex songs. As 'the song of rape' suggests, according to Falola, agricultural production and population increases are represented through the notion of 'devouring the vagina with all energy and passion' (Falola 2005:225).

Another example is the 'Luo' ethnic community in Kenya whose members believed that everything under the sun is blessed with sex. Accordingly, the planting season begins with blessing the selected seeds for planting through sexual intercourse among married couples. This is based on the view that life begins through sex. The seeds to be planted, therefore, must be blessed through sex to ensure bountiful harvests.

### **Behsâu-Pehsa Methodology**

The ancient Egyptian *behsâu-pehsa*, or predator-prey, phenomenon is a methodology that supposes that there are two interactions between two species: predator and prey. It accounts for the predation or preying of the prey by the predator. It is an exploitative relationship with the prey losing and predator winning. Predator-prey relationships are modelled as differential equations, meaning that the material world is represented as equations noting the rate of change in amount. As a result, the equation contains the derivative of the quantity (Bangura 2014, 2015a, and in press).

The *behsâu-pehsa* Methodology was used in ancient Egypt to explain relationships in nature, administration, trade, spatial and heavenly domains. The first contemporary methodological application of differential equations, now known as the Lotka-Volterra model, was done by Alfred James Lotka and Vito

Volterra in 1925 and 1926, respectively. It describes predator-prey interactions in an ecosystem. Mathematical software can now be used in ensuring certainty. Humans are thought to also conform to the same relations: for example, the owners of capital and the have nots. Bangura argues that ‘many laws governing natural phenomena are relations (*equations*) involving rates at which things happen (*derivatives*)’ (2014:12). Therefore, differential equations involve deterministic relations with varying quantities (modeled by functions) and changes in rates (represented as derivatives) can be established (Bangura 2014, 2015a, and in press).

An example of the use of this methodology is its application to Falola’s work by Bangura (2014). In what may have ended up as a subjective hagiography and tribute to Falola’s writing, Bangura made his conclusions scientific by ‘employing differential equations in the same tradition of the ancient Egyptians, [and] was able to thoroughly test Mwalimu Falola’s axioms. This is because many laws governing natural phenomena are relations (equations) involving rates at which things happen (derivatives)’ (Bangura 2015a:12). Eleven axioms were identified and developed into differential equations. Mathematical tests were applied to migration and trans-nationalisms. Bangura used the mathematical software program MATLAB’s Ordinary Differential Equation (ODE 23 and ODE 45) to test the numerical integration of equations developed for Falola’s axioms. Drawing from official data over 22 years, he proved Falola’s axioms to not only be tenable but also showed the reasons through another set of data from the United States Census Bureau and the Homeland Security Office of Immigration Statistics (Bangura 2015a and in press).

## **Egyptological Methodology**

Egyptology is the study of ancient Egyptian history, language, literature, religion, architecture and art from the 5<sup>th</sup> Millennium BC until the end of its native religious practices in the 4<sup>th</sup> Century AD. According to Bangura, Egyptological Methodology is a disciplined approach that allows people to bridge the differences that arise from the singularity of their experiences of the various aspects of the study of ancient Egypt. It postulates that African social knowledge is communicable, compelling, and valid (2011:89).

Using the Egyptological Methodology, many major research questions are investigated. These questions are based on excavation, pharaohic spirit, intellectual and physiological disciplines, and triangulation approaches of investigation. Bangura lists the following questions that the methodology attempts to answer (2011:99):

- a. Do excavation and philological studies supply abundant material for the knowledge of the life, beliefs and theology of ancient Egypt?
- b. What type of qualitative change is necessary to understand the pharaohic spirit?
- c. Which precise intellectual and physiological disciplines are necessary to comprehend the psycho-spiritual growth of Egyptian thought?

By utilizing Egyptological Methodology, the following discoveries have been made by various scholars, as noted by Bangura (2011:101-102):

- a. *Life* is 'the faculty of assimilating a food and transmuting it in the nature of the living being' and 'Life is the faculty of reacting'. Thus, Life is in all things, a ternary complex formed by an active Cause against a passive resistance that is nonetheless reactive in turn. This reaction is the apparent effect, and the whole is the vital phenomenon (de Lubicz 1977:31).
- b. *Consciousness*, according to de Lubicz, is 'the Universe is only consciousness and presents only an evolution of consciousness, from beginning to end, which is the return to its Cause' (Lubicz 1977:27-28).
- c. *Intelligence* 'has a double nature: Intellect, or Reason, is direct Intelligence, beyond all comparison. It is the Intelligence of the human being who, incarnating all the possibilities of the Universe, 'knows' this Universe without having to reason it' (de Lubicz 1977:31).
- d. *Immortality* is 'the concept and aspiration of eternal life through righteousness.' According to Karenga, 'as early as the Pyramid Texts, there is written evidence of the ancient Egyptian rejection of death as the end of life'. He further states that 'death itself was called 'repeating life' (Karenga 1990:34).
- e. *Personal Obligations*, according to Karenga, is the concept that supports 'building moral character and a moral community which sustains and is sustained by such character. As with Maatian ethics, that is virtue ethics, the individual posits the model person as the geru-maa, the truly self-mastered person 'whose whole character is infused with Maat' (Karenga, 1990:96). Thus, one is 'cultivated to do good deeds by instruction in the seven cardinal virtues of Maat: truth, justice, propriety, harmony, balance, reciprocity, and order' (Karenga 1990:97).

## Hermeneutic Methodology

Hermeneutic Methodology encompasses a series of methods and theories of interpretation and the art of understanding texts (Bangura 2011). Its meaning can

be traced to the Egyptian origin of the name Hermes, identified with the Egyptian god Thoth (*Webster Dictionary* 1913). Hermes was fabled to be the inventor of astrology and alchemy (Bangura 2011). Contrary to the position of Eurocentric writers, Hermes is a non-Hellenic figure, which was deified from Egyptian mythology. Hermes' main attribute is his mediation in the creation of the World through the use of the Word (*rhema*), as well as recapturing the Word using the Script (*logos*) (Piedra 1985; Bangura 2011). The Greeks' invasion of Egypt (in 332 BC), which led to the establishment of the Alexandria Library, brought about the birth of Hermes as a Greek god, after the tradition of Thot as preserved by the Egyptian priesthood that was culturally appropriated and transformed (Fatunmbi 2002; Bangura 2011 and in press).

According to Fatunmbi (2002), there are seven fundamental principles of Hermetic document manifestation:

1. The Principle of Mentalism – the idea that everything in the universe has some form of consequence, called *ori* in Ifa;
2. The Principle of Correspondence – the idea that everything in the material realm is a reflection of its source in the invisible realm, called *Eji Oko* the farm of heaven and earth in Ifa;
3. The Principle of Vibration – the idea that everything in the universe is in a state of constant motion, called *ase* in Ifa;
4. The Principle of Polarity – the idea that everything exists in relationship to its polar opposite, represented in Ifa by the single and double lines of divination;
5. The Principle of Rhythm – the idea that everything moves through cycles, expressed in Ifa as the movement between *ire* and *ibi*;
6. The Principle of Causation – the idea that everything exists in relationship to cause and effect, called *ayanmo* and meaning 'my spiritual tree or destiny' in Ifa; and
7. The Principle of Gender – the idea that everything has expansive and contractive qualities, called *okunrin* male and *obinrin* female in Ifa (Fatunmbi 2002; Bangura 2011 and in press).

Hermeneutic Methodology, thus, can be defined as the art and science of understanding an interpretation (Bangura 2011 and in press). Arguments in favor of this definition justify it with the fact that much of the later history of Hermeneutics can be said to have expended much efforts at setting aside the hard line between the technical and theoretical task of interpretation and the art of

understanding texts, historical periods, and other people. This definition firmly believes that hermeneutics does not only deal with the methods and theories of interpretation of text, but also the art of understanding texts (Bangura 2011 and in press).

The following are some of the many research methods that have been developed or borrowed from other disciplines in the study of Hermeneutics (Bangura 2011):

- a. *Exegesis*: This involves an extensive and critical interpretation of an authoritative text, especially of a Holy Scripture, such as the Old and New Testaments of the Bible, the Talmud, the Midrash, the Holy Qur'an, etc. Exegesis is also employed to investigate the elucidation of legal and philosophical texts.
- b. *Tafsir*: This means 'explanation' in Arabic. It is a method of Qur'anic exegesis or commentary.
- c. *Wesleyan Quadrilateral*: This is a method for theological reflection that was developed by John Wesley, leader of the Methodist movement in the late 18<sup>th</sup> Century. Upon examination of Wesley's work, Albert C. Outler delineated the following four different sources Wesley used to draw theological conclusions: (1) Scripture—the Holy Bible, (2) tradition—the two millennia history of the Christian Church, (3) reason—rational thinking and sensible interpretation, and (4) experience—a Christian's personal and communal journey in Jesus Christ.
- d. *Content Analysis*: This is also called *textual analysis* when dealing exclusively with text and is a method for studying the content of communication. It enables a researcher to include large amounts of textual information and systematically identify its properties (e.g., the frequencies of most used keywords) by determining the more important structures of the communication content. The amounts of textual information must then be categorized according to a particular theoretical framework to provide a meaningful understanding of the content.
- e. *Discourse Analysis*: This is a cover term for several approaches employed to analyze written, spoken or signed language usage. The objects of discourse analysis include discourse, writing, talk, conversation, and communicative event. These are variously defined in terms of coherent sequences of sentences, propositions, speech acts, given-new, or turn-taking. It goes beyond the sentence boundary to analyze naturally occurring language use.



## Griot Methodology

The following poem about the griots of Mali is from Mamodu Kouyate's narration and translated by Djibril Tamsi Niane (2004):

We are the vessels of speech,  
 we are the repositories which harbour secrets many centuries old...  
 we are the memory of making,  
 by the spoken word we bring to life the deeds and  
 exploits of kings for younger generations.

The griot and his female counterpart, the griotte, according to Hale (1997 and 1998), have used oral history/traditions to shape the heritage and identity of politics of numerous West African societies. Known by a multitude of terms including (d) jeli (Bamana), jali (Mandinka), gesere (Soninke), jesere (Songhay), marbo (Fulbe), bendere (Mossi), genee (Dogon), marok'i (Hausa), and enad (Tuareg), these 'artisans of oral history' are born into a hereditary order, or caste, whose profession consists of the preservation and selective transmission of historical knowledge (Hale 1997 and 1998; Jansen 2000). One of the most characteristic and audible manifestations of the griot/griotte encompasses his/her commemoration, 'praise singing' and/or servicing of kings and nobles, and more recently, contemporary African presidents, prime ministers, and diplomats via their verbal artistry mostly in exchange for patronage. However, the griot/griotte go beyond this to use his/her mastery of oral history/traditions to historicize African societies and thereby provide social cohesion and political order (Toure 2011).

According to Fenyo, Griot Methodology is used to chronicle the past of a nation, ethnic group, or political unit by allowing a researcher to establish a sequence that relays or ascertains the correct sequence of origin traditions, rulers, or other landmark events. Thus, Griot Historiography can and has been employed in the following areas (Fenyo, 2011:166):

- a. It can and has served to study as an *anthropological* or *ethnological* tool, which no longer needs to be a science inflicted on Africans but becomes a science in the hands and for the benefit of Africans.
- b. The griot has been and can be a *mediator* who can reconcile differences that may arise in the interpretation of customs and traditions and in disputes involving leadership.
- c. Oral historiography can become a *psychological* tool that serves to restore pride in the collectivity by referring to achievements of the nation and of heroes and heroines of the nation.

- d. The griot tradition has served to instill and enhance eloquence, or the art of *rhetoric*, not only in the context of Africa, but throughout the Diaspora as well.
- e. By definition, Griot Historiography is an *artistic* expression, possibly the most important form of *orature*.

An exemplary work that has employed Griot Methodology is that of Mamadou Kouyate (1965) translated by Djibril Tamsi Niane titled *Sundiata: An Epic of Old Mali* (for details, see Fenyo 2011).

### **Sankofa Methodology**

The Sankofa Methodology has its origins deeply rooted in the Akan people of West Africa. It was originally developed by the Ashanti of Ghana and constitutes concepts or aphorisms of the Akan people of West Africa (Bangura 2011:175). When translated into English Sankofa means 'It is not taboo to go back to the source and fetch what you forgot'. In its essence, *Sankofa* means that as Africans move forward into the future, they need to reach back into their past and take with them all that works and is positive. This implies that the methodology is iterative in nature: i.e. it can be applied repeatedly. *Sankofa* is employed by Pan-Africanists all over the world to promote the notion that African people everywhere must *go back to their roots in order to move forward*. The visual and symbolic representation of *Sankofa* is a mythic bird that flies forward while looking backward with an egg, symbolizing the future, in its mouth (Bangura 2011:175).

Consequently, four methodological approaches can be said to have emerged in Sankofa studies. These four techniques have been defined as follows (Bangura 2011:181):

1. *Holistic Approach* involves studying Africans by observing and recording the commonalities that exist amid their diversity. This contrasts with Western approaches that present a fragmented perspective of Africans by focusing solely on the diversity of African people.
2. *Non-deficit Approach* involves critically assessing the merits of non-African ideas and institutions employed in African societies. This approach is imperative for understanding the context of the culture, history and philosophy of Africans.
3. *Historical Archaeology* involves asking questions about the past that relate to the present to help the researcher toward a considered and intentional future.

4. *Fuzzy Logic Approach* involves evaluating phenomena based on ‘degrees of truth’ rather than the usual ‘true or false.’

Barbara J. Little (2007), as cited by Bangura (2011), developed the Sankofa *historical archaeology* approach which involves asking questions about the past that relate to the present to help a researcher to move toward a considered and intentional future. She believed that our interest in the past is drawn from our circumstances in the present and our hopes for the future; thus, the questions asked by historical archaeologists are inspired in the same way (Bangura 2011:175). She was fascinated by the challenges in promoting interest in and caring about ‘someone else’s past’ within an increasingly diverse population. She believed that historical archaeology offers opportunities for researchers to become aware of our common humanity and our common struggles. Given the current cynicisms and despair, she saw archaeology as a discipline that could offer glimpses into the human story as a source of hope and renewal. It is her desire, therefore, that we can all hope that respect—or at least tolerance and perhaps even celebration—will flow from the present to the past and back again to the present (Little cited in Bangura 2011:178).

### **Fenyo’s Pan-African Methodologies**

Pan-Africanism can be understood in both a broader and a narrower sense. Some scholars extend the concept, in space and in time, to include all or parts of the Diaspora; in other words, persons or groups that can trace their origins to the African continent. ‘White’ persons and groups outside Africa are usually not part of any definition of Pan-Africa (Fenyo 2011).

Pan-Africanism in a narrower sense may refer to Black Africans, dismissing White settlers in southern and eastern Africa as intruders. Some would exclude Arabs who have settled in North Africa as well. Some authors focus on francophone Africa, which again may or may not include the Maghreb countries where Arabic and Shluh (Berber) are the dominant languages. Fenyo points out that we must recognize that while distinctions are in order in any scholarly discussion, arguments based on ethnicity, religion, or cultural differences are often artificial (Fenyo 2011:130).

Fenyo mentions that Pan-Africanism and the related term ‘Africentric’ as well as ‘African Diaspora,’ give rise to a growing literature that is of rather recent vintage. From an on-line catalogue of the Library of Congress (LOC), conducted by Fenyo, consistency and reliability of the library data were noted (Fenyo 2011:130). Fenyo attempts to reduce the multiplicity of connotations and definitions to a manageable few. He proffers propositions which lead to a

conclusion that the concept of Pan-Africanism overlaps or coincides with the historiography of all people of African descent, on any continent, including Africa itself (Fenyo 2011:130-131).

Fenyo states that Pan-Africanism is a vast concept without well-defined boundary lines. It is vast in terms of subject-matter, and it is vast in terms of implications for the future, in terms of policy implications, and in terms of ideology (Fenyo 2011:142). Fenyo also mentions that Pan-Africanism is a set of progressive concepts, almost by definition. The term 'set' is used because it coincides or at least overlaps with Africancentric, with the 'Diaspora,' and with what used to be called African socialism. It is no coincidence that the most prominent advocates of African socialism – Kwame Nkrumah, Julius Nyerere, Amilcar Cabral, and a few others – were also the most prominent Pan-Africanists (Fenyo 2011:142; see also Bangura 2015a & in press).

As it pertains to the fields and disciplines in which Pan-African Methodologies are salient, Fenyo discusses several intellectual pursuits. The first is a Pan-African Methodology that includes the analysis of active movements and organizations already in existence: for instance, the Organization of African Unity (OAU) and its successor, the African Union (AU). The second is a Pan-African Methodology propounded by some economists who, whether dealing with the continent as a whole or focusing on some region, have perceived the difficulties of Africa in Pan-African terms, or as epitomizing the problems of the Third World in general, as prime examples of underdevelopment. The third is a Pan-African Methodology that focuses on the visual. There are at least three popular series on videos or DVDs that were done based on this methodology: (1) Basil Davidson's four-part series, 'Africa and the Africans'; (2) Henry Gates series, 'Wonders of the African World'; and, possibly the most effective, (3) Ali A. Mazrui's eight-part series, 'Africa: Its Triple Heritage', originally commissioned by the National Endowment for the Humanities, but eventually produced by the British Broadcasting Corporation (BBC). Apparently, the United States government agency disavowed Mazrui's work, which may be an indication of its effectiveness (Fenyo 2011:139).

Kwame Nkrumah, the most influential African leader at the dawn of post-independent Africa energetically took the lead role. He convened two Pan-African conferences in Ghana, merely a year after Ghana's independence: the first in April of 1958 and the second in December of 1958. These conferences, according to Thompson (1969), (a) moved Pan-Africanism from 'idealism and romanticism to that of practical politics'; (b) extended its reach to civil society organizations in the continent; (c) facilitated frequent meetings and interactions among leaders of the respective nations of the continent; (d) set the contextual background

for countries that gained their independence after 1958 for their participation in continental politics; (e) accelerated the liberation struggles in Portuguese colonies and Southern Africa; and (f) emphasized the centrality of having a firm organizational structure and base for deliberations, activities, etc. aimed at achieving African unity (Thompson 1969:126-127). Nkrumah's leading role and determination might have invited petty jealousies and covetous dispositions towards the protection of the sovereignty of the newly independent African nations, even though they participated in continental meetings.

## **Multiplex Methodology**

Multiplex, according to the online *Oxford Learner's Dictionary*, means 'a combination of several activities occurring in multiple units concurrently or at different times' (2018:1). Multiplex Methodology allows a researcher to look at an entrenched disagreement as a human encounter that exists when a specific kind of relationship is established between groups at the disagreement's origination (Bangura and McCandless 2007; Boudreau 2009). The methodology focuses on the fact that this relationship is an extreme variety of social relationships between individuals, groups, and societies. It exists because one or both sides perceive a manifest or latent disagreement, which can be defined as a perceived or real incompatibility of interests, goals, blockage, or thwarting efforts by the other group (Bangura and McCandless 2007; Boudreau 2009). Consequently, Multiplex Methodology pays particular attention to the use of case studies, in which contested geographies, human agencies, and epistemologies are central issues. This focus is primarily because entrenched disagreement always unleashes the unexpected. There are three stages of multiplex analysis (Bangura and McCandless 2007; Boudreau 2009):

1. Epistemic Encounter: this is the reality of contest at social construction between two or more knowing subjects or communities.
2. Empirical Encounter: this refers to contesting subjects with their material worlds as they each seek the substances and resources with which to carry out the contest and win complete control.
3. Self-reflective or Cartesian Encounter is upon which the subjects in such an entrenched disagreement reflect and how they incorporate their individual identities and roles into the disagreement.

This methodology can be applied when looking at entrenched disagreements between groups in an often complex phenomenon with many causes. Such disagreements are often characterized by contested geographies, materials,

resources, human agencies, identities, epistemologies, methodologies, outcomes, and even competing cosmologies and religious beliefs. This methodology pays particular attention to the use of case studies in which contested geographies, human agencies, and epistemologies are central issues (Bangura and McCandless 200; Boudreau 2009).

Multiplex Methodology has been applied by Bangura (2011a) in analyzing the last chapter titled 'The Pastor's Ordeal' in Toyin Falola's book, *A Mouth Sweeter than Salt* (2005). The chapter lends itself to such an analysis because it deals with a conflict between the chief of Elepo with the police and a peasant farmer called Jakobu in Nigeria.

Multiplex Methodology has also been employed by Ikechukwu Anthony Kanu in his paper titled 'Suffering in Igbo-African Ontology' (2015) in which he analyzes the three Igbo-African perspectives on human suffering: (1) 'the Igbo Cosmological optimistic view which believes that man is the cause of his suffering and not God', (2) 'the personal god and destiny view which sees human suffering as the product of a person's personal god', and (3) 'a middle course view which sees human suffering as the product of both views'. Multiplex Methodology was also used in *The Africans: A Triple Heritage* (1986) by Mazrui who described the major cause for the suffering of Africans both on the continent and in the Diaspora as follows: 'Europe not only created the African Diaspora by its ruthless export of millions of [enslaved Africans] to the Western hemisphere, Europe also helped to invent Africa as we know it through the ruthless distortions of colonial rule' (Mazrui 1986:99). It also has been used by many researchers looking at disagreements, class struggles, corruption in Africa, slavery and the African-American experiences (see, for example, Bangura 2015a and in press).

## **Pluridisciplinary Methodology**

Pluridisciplinary Methodology is defined by Bangura (2015b and in press) as the systematic utilization of two or more disciplines or branches of learning to investigate a phenomenon, thereby in turn contributing to those disciplines. In his edited book titled *Ancient Civilizations of Africa* (1990), Mokhtar traces the development of Pluridisciplinary Methodology to the works of Diop and Vercoutter. Winters is a major scholar who has advanced the methodology by combing anthropological, historical and linguistic methods to explain the heritage of African people, constituting a third school of Africancentricity (Winters 1998).

According to Nadudere (2003), Pluridisciplinary Methodology involves the maximum use of open community resources. Indigenous languages are therefore

at the center of the effective utilization of the methodology. Winters (1998) states that a pluridisciplinary specialist is a person who is qualified to employ more than one discipline: for example, history, linguistics, etc.

Bangura (2015b and in press) applied a pluridisciplinary approach to blend linguistics and mathematics in the fractal analysis of the data generated from Falola's book titled *Counting the Tiger's Teeth* (2014). In the analysis, univariate and bivariate statistics were computed to do the descriptive and inferential analyses of the data extracted from the text. In addition, a two-dimensional ad hoc classificatory system was adopted within which the data collected were categorized. The first set of categories entails the presuppositions of order in which there is a logical arrangement among the separate elements such as 'I carried no instruments or weapons, other than the notebooks and pen in my pocket' (Falola 2014:3). The second category encompasses presuppositions of disorder which suggests confusion or disarray such as 'In one stroke of the machete, the agile man in his mid-forties cut the frightened, lean-looking dog into two pieces, almost in the middle of its already over-stretched neck' (Falola 2014:1). After the descriptive and inferential statistical analyses, the data were plotted for oscillations between order and disorder. This technique made it possible to visually display the attractor reconstruction for the text. A total of 8,935 topic entries were extracted from the text; a total of 4,246 (48%) were presuppositions of order while 4,689 (52%) were presuppositions of disorder. The analysis shows that the examined text moves from periodic fractal rather than stretching all the way to pure order or disorder.

## **Ubuntu Methodology**

According to Ganyi and Owan (2016), Ubuntu is an African educational paradigm pioneered by Bangura (2010b), who defines it as the art and science of teaching and learning undergirded by humanity towards others. For Ganyi and Owan (2016), Bangura sees this paradigm as superior to pedagogy, andragogy, ergonagogy and heutogogy which were all founded on and reflected different cultural and environmental peculiarities and backgrounds from the African ones. Thus, Bangura indicates that Ubuntu is based on the African existential philosophy of ubuntu. Yet, the etymology of the word 'ubuntu' is diverse. However, it is generally believed to have emanated from the Zulu and Xhosa languages. Simply translated, ubuntu means 'humanity towards others' as well as 'love and humanity towards others' (Ganyi and Owan 2016). Bangura (2010b) argues that if Africa needs to develop, it must adopt Ubuntu Methodology instead of continuously relying on Eurocentric learning approaches. Bangura (2015a & in

press) further establishes what he calls the major elements of Ubuntu-gogy to be its religiosity, consensus building, and dialogue among the Africans, which are all hinged on their ubuntu concept.

In terms of application, Bangura (2010b) argues that a researcher employing Ubuntu-gogy Methodology must address the following major research questions:

- a. How can African knowledge be increased in the general body of global human knowledge?
- b. How can linkages be developed between the sources of African knowledge and the centers of learning on the continent and in the Diaspora?
- c. How can centers of learning be established in the communities and ensure that these communities become 'learning societies'?
- d. How can knowledge be linked to the production needs of African communities?
- e. How can we ensure that science and technology are generated in relevant ways to address problems of the rural communities where the majority of African people live and that this is done in African languages?
- f. How can the gap between the African elites and the communities from which they come is reduced by ensuring that education is available to all Africans and that such knowledge is drawn from the communities?

As Bangura (2015a and in press) points out, Falola's *Yoruba Gurus* (1999) is an example of a study where the methodology has been used, albeit unknowingly. Bangura has also employed the methodology to analyze Falola's work, among many others.

### **Diopian Intercultural Relations Methodology**

Cheikh Anta Diop prefaces his arguments about intercultural relations in his book titled *Civilization or Barbarism: An Authentic Anthropology* (1981/1991) by mentioning that its failures and difficulties are shaped by the process in which two given cultures are born, developed, make contact and influence each other. He further asserts that one peculiarity of intercultural relations resides in the domain of linguistic expression. He gave an instance of the Europeans by saying Europeans would have minor difficulties when different countries communicate among themselves while on the other hand the situation is different in Africa because the meaning, concepts, images and expressions are associated with different thoughts that beset Africans with acculturation and cultural alienation. He buttressed this with an instance of poetry. He said the European linguists have yet to assimilate



some of the African terms; therefore, any time an African poet needs to translate an original image of his poetry from the culture of his native language into some European language, the poetic rhythm of the poet is simply inexistent. This led to Diop's reference of Jean-Paul Sartre who coined a concept he referred to as a 'de-Frenchify' process. De-Frenchify is a process whereby African poets express themselves in French, which is quite different from how the 'French' people express themselves. What is implied here is that what African poets say does not mean much to the French people.

Diop further asserts that in the domain of intercultural relations, plastic arts comprise a subject that shows that the specific elements of a given culture are not concentrated. Accordingly, Diop gave two domains that were present in every culture: (1) a specific level where the fundamental components of the culture are produced; and (2) universal concepts that refer to cultures interfering with one another, thereby creating a domain of universal relations. He concludes that the systematic exploration of a subject by using these elements is the essence of the Diopian Intercultural Relations Methodology (Diop 1981/1991).

According to Shirzoi, Ibn Khaldun is also one of the most prolific scholars that contributed to the promotion of intercultural relations. Ibn Khaldun explained that the stability of any state rests upon the solidarity that unified its founders (Shirzoi 2004). Khaldun introduced the concepts of *umran badawi* (which has to do with rural nomads) and *umran hadari* (which has to do with civilised and urban citizens). He presents these concepts to illustrate the general evolution of human society indicating that *badawi* is the first stage and *hadawi* the higher stage (Lacoste 1984; Shirzoi 2004).

With all these concepts in mind, Ibn Khaldun then made his most profound interpretation of human society, which he called *asabiya*. The concept of *asabiya* depicts a force whose nature and evolution are basically dialectical (Lacoste 1984:157). He refers to *asabiya* as a dialectical process because the concept is the product of two antagonistic elements which are (1) tribal egalitarianism and (2) the power of the chieftain (Shirzoi 2004).

Another noted theorist in this school of thought is John Hunwick (2008) who shows how the West African Islamic and scholarly traditions promoted intercultural relations. He presented several important findings from his research on the Arabic Literature of Africa project that covers particular areas of the Western Sudanic region where a strong manuscript tradition can be found. Hunwick delineates four eclectic categories under which Western Sudanic African Arabic writings can be subsumed: (1) historical, (2) pedagogical, (3) devotional, and (4) polemical.

An example of a study in which the methodology has been employed is Falola's *Nationalism and African Intellectuals* (2001) in his discussion on how the Ethiopian intelligentsia and European colonialists and religious institutions furthered intercultural relations by way of scholarship. According to Falola, the pace of the development of the African educated elite began slowly; but as Africans began to demand change, the pace quickened in the 20<sup>th</sup> Century. The missionaries provided the basis for European literacy as they constructed elementary schools. The need for more educated Africans in commerce, church and government undergirded the relations between Europeans and Africans in the 19<sup>th</sup> Century. By providing Western education, missionaries were able to propagate Christianity, fight against the slave trade, convert Africans to Christianity and assimilate them into Western cultural practices and ways of thinking (Falola 2001:5-6). Nonetheless, as Falola proffers, despite the similarity of the agendas of the various missionaries, there were variations in terms of the limitations posed by their governments, their methods, and their achievements.

It is such profound views on intercultural relations (and, of course, others) that prompted Falola to assert that 'Diop sought a balance between virtually all types of ideas as they could serve to enhance Africa' (Falola 2001:44). Falola boldly proclaimed that Diop 'deserves both eulogy and evaluation in any discourse on the African intellectual tradition and Pan-Africanism' (Falola, 2001:44).

### **Diopian Restoration of African Historical Consciousness Methodologies**

The Diopian Restoration of African Historical Consciousness Methodology the revival of African Historical awareness as popularized by Cheikh Anta Diop, a famous African historian, anthropologist, physicist, and politician. Indeed, Diop in his works gave an in-depth historical antecedent of the development of the African, as well as Black civilization during the prehistoric period as exemplified in the Nilotic Sudanese civilization which was later regarded as Egyptian civilization. Diop further pontificated that the African cultural traditional system, right from its pre-historical era, was/is anchored fundamentally on matriarch-cum-patriarch historiography, as against the predominant masculine Western ideology. Thus, Diopian ideology, which serves as a nucleus to the development of the above methodology, emphasizes the principle of African interrelated cultural uniformity and continuity.

A classic example of the application of the methodology is seen in the Senegalese language, Wolof, which is utilized as a framework to demonstrate the linguistic unity among the Africans. The argument is centered on the possibility of unifying

other sectors of the African world system through its cultural and linguistic antecedents. Colonialism, according to Diop, dislocated the development of the African ideology as embedded in its historiography (Bangura in press). By the turn of the 21<sup>st</sup> Century, the restoration of the African consciousness was further strengthened by the works of contemporary African scholars. One such scholar is Falola who has also written extensively on the restoration of African consciousness. In two separate works by Falola, *Nationalism and African Intellectuals* (2001) and *The African Diaspora: Slavery, Modernity, and Globalization* (2013), he provides an anatomy of the African consciousness from a historiographical context. Additionally, *Ifa* is being used among the Yoruba (in Africa and in the Diaspora) as a cultural and religious unity (Olupona and Abiodun 2016). *Ifa* is a traditional system of divination that is common among the Yoruba and serves as a cultural linkage among the various groups that form the Yoruba nation. Indeed, this explicit cultural aspect demonstrates the beauty of Black Africa which gives reasonable room for equal participation of both males and females in the development of the society before the advent of colonialism (Bangura in press; An-Na'im 2002). According to Bangura, this unique 'ancestral aspect needs to be reestablished in modern times as it would facilitate strong and common economic and social developments in African societies (Bangura in press).

Three main examples of African scholars/nationalists—Kwame Nkrumah, Samuel Johnson, and Carl Christian Reinchorf—are used by Falola to emphasize the import of the Diopian Restoration of African Historical Consciousness Methodology. Kwame Nkrumah's *Consciencism: Philosophy and Ideology for Decolonization* (1964) demonstrates a clear work of the philosophy of Pan-Africanism, which also provides a detailed analysis of his Pan-Africanist school of thought. In the same vein, Falola utilizes Samuel Johnson's book titled *The History of the Yorubas from the Earliest Times to the Beginning of the British Protectorate* (1921) to show the enduring African-grown methodology in the pursuit of a revival of African historical awareness. Finally, Carl Christian Reindorf's *History of the Gold Coast and Asante* (1895) is employed by Falola to explain the epochal work on the restoration of African historical awareness.

### **African Mathematization**

Bangura defines Mathematics 'as the systematic study of quantities and relations through numbers and symbols' (2012:2-3 and in press). That Mathematics pervades every branch of human knowledge, he says, is hardly a matter of dispute. He adds that it is a useful and fascinating field of inquiry, and it possesses the

power to solve some of the deepest puzzles that humans encounter (Bangura 2012 and in press).

Bangura highlights the fact that while some aspects of the history of Mathematics in ancient Egypt and northern Africa during the Middle Ages has been discussed, aspects from Africa South of the Sahara have been greatly ignored by most books dealing with the history of Mathematics. These books generally give the impression that there was no Mathematics at all in that part of Africa. He emphasizes that Africa was in the center of Mathematics history for tens of thousands of years, a fact that is undisputable. From the civilizations across the continent emerged contributions which would enrich both ancient and modern understanding of nature through Mathematics. From the measurements used in the African forest kingdoms to the Mathematics used in building the great stone complexes of Zimbabwe, the efficient irrigation technologies, central administration, the great accuracy of the dimensions of the pyramids, and the random number generation of the binary code that led to the invention of the computer, the achievements of Africans remain a fascination (Bangura 2012:3-4 and in press).

Bangura (2012 and in press) draws upon numerous works and other empirical evidence to demonstrate that African mathematization from antiquity to modern times hinges upon the understanding of nature and concern with broader development and humanity or fellow-feeling towards others. He shows this by presenting a sample of the evidence on several mathematical aspects contained in works such as those by Falola (1996, 1998, 2005, 2012, 2014). Bangura then provides a few examples.

First, numbers are composed by words and gestures, in addition to being represented as numerals. The economic development of an African society ultimately determines the development of its numeration system. Second, the earliest mathematical objects in human history include the Lebombo and Ishango Bones. Third, the development of geometrical thinking started early in African history, as early as humans learned to 'geometricize' in the context of their labor activities. Fourth, the roots of modern Mathematics can be traced to Kemet (ancient Egypt). For example, the doorways of many of the massive temples in Kemet are shaped in the symbol of Pi. To rule effectively, the Egyptians had to develop an extensive and efficient administration for collecting taxes, taking census, and maintaining a large army. Since all these activities required mathematics, the Egyptians at first employed counting glyphs. But even by 2000 BC, the hieratic glyphs were being used by Egyptians (Bangura 2012 and in press).

Bangura continues: fifth, from the 9<sup>th</sup> to the 11<sup>th</sup> Century, known as the period of the installation and consolidation of Muslim power in the first cities of Spain and the Maghreb, the fields of medicine and calculation were the first scientific endeavors to benefit from teaching, followed by the publication of works, to respond to the needs of certain higher-rank people of society and to lawyers for the resolution of certain problems such as those involved in land measurement or in the partitioning of inheritance. Sixth, Combinatorics saw its earlier growth in Africa via the Mathematics of Medieval Maghreb. Seventh, many quantities which are of interest in the study of physical African designs are directed quantities (vectors) and can take on a continuous range of values, making Calculus methods imperative in investigating them (Bangura 2012 and in press).

Bangura adds: eighth, two critical questions have been addressed by works that employ the Fourier Transform to study African designs: (1) Some scholars have found that all cities (historic, primitive and modern) are fractal precisely because they are complex natural systems. Other scholars have discovered that fractal tiling patterns exist on some of the oldest European tiled floors and in ancient Chinese art. What then does this say for the validity of arguments concerning African fractals? (2) At what number of scales does self-similarity occur in African fractals and what method can a researcher employ to determine self-similarity? Ninth, Mathematics of periodic patterns of one or more shapes, which can be extended across an entire plane infinitely, is present in certain African designs. Tenth, Bifurcation, generally defined as a differential equation system that undergoes a qualitative change in its orbit structure as one or more parameters of the dynamical system are changed, has its roots in ancient Egyptian artifacts. Indeed, classic Egyptians were quite involved with symbolism. Thus, their artifacts were designed and aligned cosmologically. Finally, fractal complexity, a graphical approach whereby the regions are subdivided until the sub-regions are less than one screen pixel in size, is prominent in African settlement architecture and intentions and inventions of designs. They encompass geometric algorithms, scaling, numeric systems, recursion, infinity, and complexity (Bangura 2012 and in press).

Furthermore, Bangura shows in his paper titled 'Domesticating Mathematics in the African Mother Tongue' (2014) that the languages of Africa exhibit mathematical ideas that reflect all nine design features of language. These linguistic features include mode of communication, semanticity, pragmatic function, interchangeability, cultural transmission, arbitrariness, discreteness, displacement and productivity. He also highlights the fact that scholars and other professionals working in the field of Mathematics education in Africa have identified a plethora of problematic issues in the endeavor. These issues include

attitudes, curriculum development, educational change, instruction, academic achievement, standardized and other tests, performance factors, native speakers, etc. He argues that a major reason for these problems is that the mother tongue has been greatly neglected in the teaching of mathematics in Africa and suggests two remedies: First, schools should encourage the use of African languages in order to nurture and promote those languages. Second, more research on the connection between language and the learning and teaching of mathematics from a political standpoint is necessary (Bangura 2014:57). Finally, Bangura (2012) proffers the proposition that just as mathematicians played a major role in the development of African societies during antiquity, they are widely used now to work with experts in other disciplines to help fulfill the African Renaissance.

### Complex Methodology

Complex Methodology is a quantitative method that employs mathematical approaches to analyzing complex numbers. Complex Methodology is also referred to as Complex Analysis and traditionally as the Theory of Fractions of a Complex Variable. Zill and Shanahan (2015) define complex numbers as ‘those numerical values that can be represented by the form  $z = a + ib$  where  $a$  and  $b$  are real numbers and  $i$  is the imaginary unit’ (2015:3; also cited in Bangura in press). According to the Department of Mathematics in the School of Science at Osaka University in Japan, the origin of Complex Methodology can be traced to ancient Egyptians ‘through their use of abstraction and logical reasoning’ (see Bangura in press). That position is further affirmed by Diop (1981) and Sisk and Shea (2011) who discovered that complex projectile technology originated in Africa. This was learned by using a ‘Tip Cross-Sectional Perimeter, a more accurate proxy of the force needed to penetrate a target to a lethal depth’ (Bangura in press).

Complex Methodology is ‘now widely used in many sub-disciplines in mathematics (e.g., applied mathematics, algebraic geometry, and number theory), physics (e.g., thermodynamics and hydrodynamics), and engineering (e.g., electrical, mechanical, and aerospace) (Bangura in press). Bangura employed Complex Methodology in dissecting Falola’s book titled *Counting the Tiger’s Teeth: An African Teenager’s Story* (2014). Bangura (in press) uses the Linguistic Presupposition technique (i.e. systematically teasing out from a stretch of verbal or written discourse implicit assumptions about the universe or background beliefs pertaining to that discourse) and teased out a complex representation of a two-dimensional vector field denoting order and disorder with numbers assigned to each category.

## **Mo Ibrahim African-centered Indexing Methodology**

The general theme of this methodology is good governance and development of Africa from the citizens' perspectives. The methodology argues that African discourse of good governance should rely on the application of various existing African indigenous governance patterns rather than relying on borrowed methods. To this end, the Mo Ibrahim Index of African Governance proposes four major indicators with which African countries should be assessed on good governance. The indicators are Safety and Rule of Law; Participation and Human Rights; Sustainable Economic Opportunity; and Human Development (MIF 2016). The Mo Ibrahim African-centered Indexing Methodology argues that good governance is therefore better understood by applying these index groups to measure the extent of delivery to the citizens of many economies, social and political goods and services by government and non-government actors, particularly in Africa.

The historical emphasis on the relationship between the centrality of citizens as it is attached to good governance was traced to ancient Egypt by Knollová (2011) and Budge (1978) in their works on principles of good governance in ancient Egypt. The Mo Ibrahim Methodology maintains that underdevelopment in Africa is a direct consequence of lack of understanding and application of African development theories by African leaders for the development of the African continent. It means that the underdevelopment suffered by African countries is the result of two factors: (1) African leaders' lack of knowledge of what to do to develop Africa; (2) African leaders' lack of understanding of how to apply ancient African development systems to develop Africa. The method is shown by Bangura (in press) to have been used by Falola in his work titled *Ibadan: Foundation and Change 1830-1960* (2012) to assess the development in the traditional Ibadan community under British colonial rule.

## **Africentric Methodology**

At the heart of Africentric Methodology is the shattering of the assumption that Western methodologies are sufficient enough to capture the peculiarities of African experiences. With a focus on the 'commonality of cultural traits among the diverse peoples of Africa' (Bangura 2015a and in press) Africentric Methodology promotes knowledge production from the African point of view, . As stated by Bangura, Africentricity simply means that the universe is a collection of relationships, and an individual or a group being in that universe is defined by and dependent upon these relationships' (Bangura 2015a and in press). Africans consider the Cause or God as being a part of His creation and they

thus diverge from Europeans who consider God as separate from His creation. Therefore, Africentric Methodology bridges the gap between the 'this worldly' and the 'other worldly' positions by locating the divine as pervasively present in the human affairs (Bangura 2015a and in press).

A growing number of African researchers are approaching their analyses of African experiences from the standpoint of Africentric Methodology by exploring realities that are peculiarly African. An example of an analytical approach in this tradition is Asante's 'three fundamental Afrocentric themes of transcendent discourse' which are: '(1) human relations, (2) humans' relationship to the supernatural, and (3) humans' relationships to their own being' (1987:168; also cited by Bangura 2015a and in press). Asante maintains that if analysts of African experiences conducted their analyses with the consciousness of the interrelatedness of the three themes, they would produce 'a greater understanding of the African being'. The themes are considered critical to the domestication of disciplines such as Anthropology, Theology, History, Psychology, and Linguistics to make them relevant to the realities of African experiences (Bangura 2015a and in press).

Africentric Methodology has been used extensively by Falola (2001, 2005, 2013, and 2014) to explore different aspects of the Ifa Orisa, which he defines as 'a geomantic divination system that contains 256 ancient Yoruba verses'. Some of the aspects of Ifa Oracle studied are its divination system, divination verses, festival, and tradition. Another application of Africentric Methodology is found in Abimbola's *Ifa Will Mend Our Broken World: Thoughts on Yoruba Religion and Culture in Africa and the Diaspora* (1976), which captures 'the connection the Yoruba feel with their dead or ancestors'. What is common with these works is that they interrogate the Yoruba experience from the standpoint of the centrality of the divinity to the Yoruba people as contemplated in the Ifa corpus.

### **Er/Set/Sthenā/S-tut/Tut Methodology**

This methodology was gleaned from the ancient Egyptians dating back to the period of Ramesside in the 19<sup>th</sup> and 20<sup>th</sup> Dynasties (1292-1064 BC). It was used specifically to train scribes and used for the Papyrus Amen which dates back to around 1650 BC. The Egyptians have been employing the metaphorical method in writing about many aspects varying from legal abstract concepts to love poems starting around 2000 BC to the present. The method was used in ancient Egyptian practices as *Er* meaning 'a sign of the comparative', *Set* and *sthenā* meaning 'to compare', *S-tut* meaning 'to symbolize', 'to make an image' while *Tut* meaning 'Image One', 'likeness', 'statue' (Budge 1978:415,628,707,710 and 717; Bangura in press).



Africans have a way of condensing, in metaphorical expressions, knowledge that cannot be captured by plain language. Bangura (in press) adopts this methodology to study views of Falola and his work held among scholars extracted from responses to a survey conducted via the USA-Africa Dialogue listserv. The metaphorical analysis was done in a two-step process. The first step delineated 'the frames or categories within which identified metaphorical stretches of discourse can be interpreted', [while] the second step discusses 'a range of phenomena that are pertinent to the frames'. The metaphors used are categorized under Academician Metaphors which include original scholar, archetype scholar, *ojogbon*, distinguished professor, Mwalimu Kubwa (Kiswahili for 'mega professor'), a class of his own, intellectual giant, untiring intellectual, intellectual majesty, great teacher, prolific writer, and Babban Gwani (Hausa for 'expert of experts'). The other forms of metaphors are familial metaphors, personhood metaphors, and animal metaphors (Bangura in press).

An example of a study that has used this methodology is David's article titled 'Ancient Egyptian Forensic Metaphors and Categories' (2017). The study critically examines legal metaphors in ancient Egyptian literary and legal texts that contemporary legal concepts mirror, particularly the scale of justice. The study also identifies how the present legal system relies on the legacy of the metaphorical past of the Egyptian legal system.

## **Ujamaa Methodology**

*Ujamaa* is a Kiswahili word meaning 'extended family' or 'familyhood', which encompasses people of all races or ethnicities. The concept was coined and applied by the late President of Tanzania Mwalimu Julius Nyerere as the basis of African Socialism whereby every individual is in the service of the community for collective achievement. It also refers to the socialist ideology of subordinating differences for economic transformations (Falola 1998; Bangura 2015a and in press). Specific concepts relating to Ujamaa include nationalization; nationalism; family; equality; freedom (*Uhuru* in Kiswahili), self-discipline, cooperative ideology; socialism; education; leadership; public ownership; humanity; beliefs, etc. *Ujamaa* is underpinned by seven theories, namely (1) Self-reliance, (2) Equality of Leadership and Masses, (3) Kiswahili Guiding Principles (that unifies 126 language groups existing in the archipelago Zanzibar and the mainland Tanganyika), (4) African Socialism, (5) Neo-traditional African Democracy, (6) Contemporary African Revolutionary Thought, and (7) Mazruiana Theoretical Postulates (Bangura 2015 in press).

Ujamaa Methodology is important for understanding social science epistemologies that explain the contributions of Africans to world civilization. This research methodology is insightful for studying what and how Africans can contribute to the world. It emphasizes socialism, unity, and equality, among other key concepts, that can be useful in promoting equality and balanced economic growth. It can also be applied by African leadership in different government policies and programs with the aim of reducing the gap between the poor and the rich. It is studied as a university course and has also been applied in government and politics in Africa for developmental processes aimed at promoting self-reliance.

The methodology has been applied in Tanzania in the area of self-reliance to make the population attempt to advance itself with less government aid. Many of the tenets of *Ujamaa* philosophy have been evident in the leadership of Tanzania's presidents that have followed Nyerere: Ali Hassan Mwinyi (1985-1995), Benjamin Mkapa (1995-2005), Jakaya Kikwete (2005-2015), and John Magufuli (2015-present) (Bangura in press).

## Consciencist Methodology

Consciencist Methodology is a 'method of approaching philosophy from the standpoint of its social contention' (McClendon 2003; see also Bangura in press). It is based on Kwame Nkrumah's philosophical consciencism, a philosophical perspective

born out of a crisis of the African conscience confronted with the three strands of present African society; the African experience of the Islamic and Euro-Christian presence as well as the experience of the traditional African society, and, by gestation, (to be employed) for the harmonious growth and development of that society' (Nkrumah 1964:70; see also Bangura in press).

Some of the major concepts of this methodology are African Personality, Traditional African Outlook, African Renaissance, Rationalism, Empiricism, Idealism, Materialism, Dialectical Materialism, Philosophical Materialism, Dialectical Change, Solipsism, Soul or Spirit, Egalitarianism, Social Political Practice, Positive Action, Negative Action, Colonialism, Neo-colonialism, etc. The following five postulates are identifiable in consciencism: (1) *Principle of Identity of Meaning* or *Law of Identity* (which means 'each thing is the same with itself and different from another'); (2) *Principle of Sufficient Reason* (a philosophical proposition which advances the idea that everything must have a cause, ground, or reason); (3) *Materialist Conception of History* or *Historical Materialism* (refers to

the final causal feature in the history of the production and reproduction of life) is a methodology employed to investigate the historical development of human societies; (4) *Principle of Justice* (how the metaphysical and social generation of things is regulated); and (5) *Principle of Pre-established Harmony* (the proposition that every person possesses ‘an inalienable right to develop according to his nature, even if his development requires the suffering and subordination of others either in a political or in an economic sense’) (Nkrumah 1964; see also Bangura in press).

Consciencist Methodology can be applied to study any society, but more specifically to study colonies and newly independent and developing countries. It can be quite useful for the proper investigation of African philosophy and history within their contexts. Consciencist Methodology proposes studying an alien philosophy within the context of the intellectual history to which it belongs and within the context of the milieu in which it was born for the furtherance of cultural development and strengthening of human society (Bangura in press).

Falola in his work titled *Ibadan: Foundation Growth and Change 1830-1960* (2012) used the theory to reveal British colonialism in Ibadan vis-à-vis its perceived blessings and its establishment in and imposition on Yorubaland. Falola showed that the British annexation and domination of Ibadan were geared towards binding the city’s economy into Britain’s world economic system. According to him, this was done by replacing the ‘family mode of production’ with the capitalist one, developing a wage labor and a peasantry to produce goods for the metropole, taxing the workers and peasants and using the money to maintain the colonial bureaucracy, and selling mass-produced European goods of shoddy quality to the masses in the colony. Falola then outlines a number of problems British colonialism fomented in Ibadan (Bangura 2011:63 and in press).

## **Abiodun Oriki Methodology**

The Abiodun *Oriki* Methodology, named after Professor Rowland Abiodun, is an Afracentric research methodology centered on the Yoruba concept of the head, *ori*. It is a concept propounded by Falola. Its translation in English means ‘praise poem/attributive epithet’ (Banagura 2015 and in press). It is the systematic investigation of Yoruba verbal and visual invocations. *Oriki* is an important genre in Yoruba because it is one of the major ways to glorify successful people and events of a community’s history, to construct a logical belief system based on origin traditions, and it is employed to establish and verify claims to identity and legitimation. It is a Yoruba genre that incorporates ‘all verbal and visual invocations with language that is evocative, exclamatory, laudatory, and hyperbolic’

(Abiodun 2014; Bangura in press). Four points to note about the translation of *oriki* from source (tonal) language to target language are '(1) the intertwining of entertainment and moral message through; (2) the combination of excessive imagery, declamatory speech and onomatopoeia; (3) the advancement of action and meaning through hyperbole and personification; the artistic manipulation of language that is music prone; and (4) the creative use of numerous paralinguistic devices by one preoccupied with the dual authorial intent of edifying and entertaining' (Smith 2001:749; Bangura 2015:138 and in press). *Orí* is the most discussed aspect of *orikì* because it is believed by the Yorubas to be 'the cause and essence of one's being' (Bangura 2015 and in press).

The strengths of the methodological approach hinge upon its definition, characteristics, and justifications. *Orikì* can be chanted, spoken, or sung; and can also be intoned on the drum, with speech tones reproducing the drum sounds as a kind of surrogate language. It can also be represented via sculpture and other artistic configurations. Bangura (2015) suggests an Abiodun-Bangura-Falola *Orikì* Conceptual Framework as suitable for the Abiodun *Orikì* Methodology and used all the *orikìs* as hypotheses to determine different types that can be produced.

The Abiodun *Orikì* Methodology has been used to explore the historical relevance of the *ààlè* or indigenous production of knowledge. Among others, Falola (2013) in his study titled *Ibadan: Foundation Growth and Change 1830-1960* (2012) used *orikìbòròkìní* as a form of heroic worship through imagery and metaphors depicting achievements, bravery, and courage to demonstrate how *oriki* is used to depict the 19<sup>th</sup> Century warriors.

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