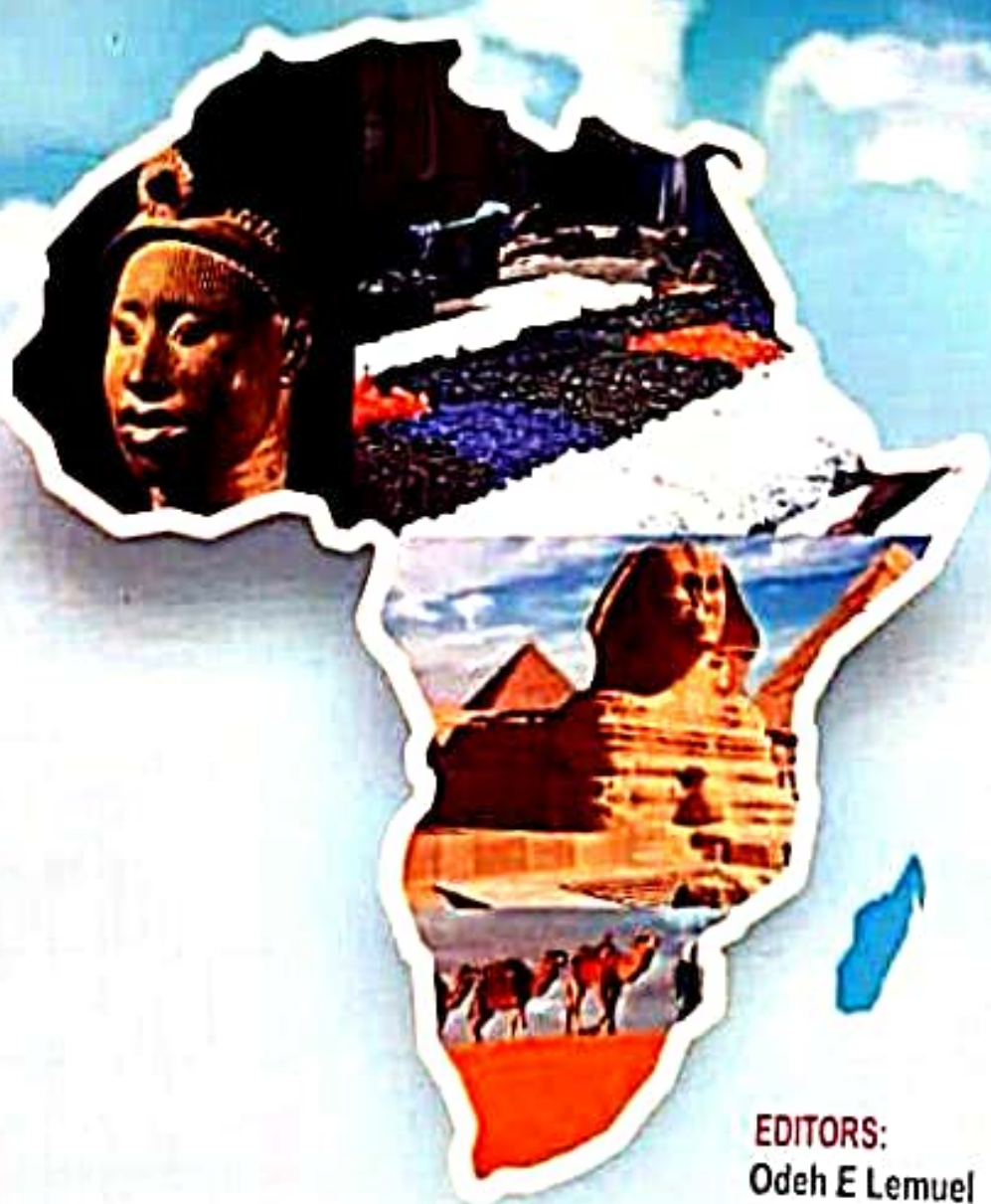


HISTORY OF INDIGENOUS SCIENCE, TECHNOLOGY AND ECONOMIC TRANSFORMATION IN AFRICA

Essays in Honour of Professor Raimi a Olaoye



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CHAPTER 18

The Alternative of Cultural Metaphysics in Africa's Quest for Social and Techno-Scientific Development in the Age of Globalisation

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Introduction

The palpable impact of science and technology in Africa today emphasises the importance of these phenomena in the contemporary social-life of the people of the continent. Everywhere one goes - the nooks and the crannies - and everything one undertakes - in all ramifications (social life, health, agriculture, architecture and so on) - one encounters the stunning relevance of science and technology in the lives of the people of Africa. It could be asserted, incontrovertibly, that survival in Africa (as is the case in the rest of the world) is dependent on science and technology.

These include means of communication, transportation systems, banking activities and transactions, means of entertainment, educational systems, security operations, macroeconomic activities as well as carrying out government operations (policy and decisions), and diplomacy. Nothing in Africa today is independent of science and technology.

Importance of science and technology in the present world

The huge dominance and relevance of science and technology in the world today (particularly in Africa) finds credence in the declaration:

Modern technology is having overwhelming influence on us, and we either be part of it or prey to it. Technology is the primary index of power and the foundation of all development. Any development without it, ultimately collapses giving rise to concomitant social upheavals... technology is the key factor that defines the masters and servants of this world. (Momah 1999: iv).

Momah emphasises the importance of technology above; in fact, the emphasis is underscored in the threat that if Africans fail to be part

of the (Science and) technology race, they would be ravaged and ruined by it (as deduced in 'falling prey to it' as well as 'being the servants' as noted in the quoted words above). Science has impact on the economies of nations and the significance and relevance of science and technology could be garnered from the many breakthroughs in biotechnology, space research, energy development, and so on (Muhammad 2012:1). Integrated Remote Sensing (a scientific and technological product) could be applied in assessing groundwater potential in a section of Kano State, Nigeria (Maitama, Hotoro, Dewu, Dambatta and Umego 2012: 29). They maintain that there is a connection between lineament and geologic structures as a result of abundant lineament orientations; and that if such structures are interpreted from the aeromagnetic maps, they are essential channels for underground water. Concerns have been expressed on the application-oriented introduction of nanotechnology to manufacturing, because nanotechnology in manufacturing as seen in the introduction of nanotubes increases the strength of cement (Khan 2010:9-11). Khan takes a wide survey of the different areas where nanotechnology has been applied which include food science, optoelectronics area, microelectromechanical (MEMS)-based system, as well as the fabrication of electronics hardware devices. On the premises of the foregoing, it could be asserted, incontrovertibly, that science and technology could be applied, in fact, is applicable in many areas of contemporary human endeavour, in Africa particularly.

Science and technology in Africa: the current situation

However, as important as these cerebral phenomena are to man and his experiences; and as dependent as Africa is on these phenomena, it is frightening to note that the continent of Africa cannot boast of its own indigenous scientific and technological innovations. To this end, the great ships that bring commodities to African ports (Ports of Takoradi or Ports of Durban), the jumbo jets that Africans fly, the internet access that powers electronic and mechanical as well as social administration, the Automated Teller Machines that pay (or collect) cash from bank customers, the state-of-the-art cars that Africans ride (are truly exotic), the tractors that move the African earth, the machinery (and other equipment) in use in African industries, the vaccines, and so on; all are agricultural yields, the weapons of war, the chemicals that improve the products of the techno-scientific knowhow from the West - the United States and Western Europe and Russian - and the East, especially, the Far East. Where is Africa?

earth - the West (particular places) and the East (especially, the Far East).

This is not talking about geniuses (like William Shakespeare, Isaac Newton, Albert Einstein, Leonardo Da Vinci or Ben Carson) because the difference between geniuses and the regular humans are in their brains specifically as it has to do with connections (long and short) in the cerebral cortex. This makes the brains of the geniuses possess the concentration of mini columns that are denser than what obtains in the rest of the people (Ridley 2010). It is talking about a human whose state of being a genius is a process seen in being able to receive information through revelation from the divine custody. To this end, being a genius is a process.

There have been Super Humans in the world specifically in the areas of science and technology. They have emerged in North America, Europe, Asia and Australia. Africa is yet excluded! God's own discretion has been pivotal in the unreflective distribution of scientific and technological endowment (the mode since the making of the Titanic) among humans through the Super Humans. Though tendentious, yet sound reasoning points to the direction that the first human creatures were white. This, I believe, was out of and for a divine essence. And since this is a supra-human preserve, it is best seen as God's own discretion in the evolution of science and technology. It could only be conjectured that the discretion was motivated by the social hierarchy - the whites knowing God first, and this brought about the essence of David Ricardo's theory of Comparative Cost Advantage.

Among the factors responsible for the retardation in the evolution of Africa's technology and science, of a tremendous impact is the non-realisation of the potency of African mysticism (in its many different varieties). This has accounted for the corresponding non-utilisation of this resource which has tremendous potent potential. The factors identified and discussed above fit in two broad classificatory paradigms - Reflectionist (Super Humanity, God's own Discretion about racial hierarchy and Comparative Cost Advantage) and Conscientising (the non-realisation and utilisation of African mysticism or metaphysical prowess). The former paradigm is for its own sake but complementary while the latter is suggestive of the antidote to the doldrums Africa battles in its quest for techno-scientific breakthrough of the continent.

The Next Step

After decades of quest for its own home-grown science and technology, Africa should change course. The continent should re-direct its effort. After several decades of phony claim and complacency, it is high time Africa came to realistic identity and true self. After an age of unbridled demonstration of nationalistic African consciousness, it is time the continent was retrospective and took the next step - exploring the huge values of its spiritualities.

Africa's spiritual custody ranges from mysticism (animism, for instance) through pentecostalism to Tawwa (the last two and others being initially alien to Africa but now Africanised owing to age-long presence and accalamatisation). First off, it needs be stated that there is a sphere (a realm) that hosts a power of influence on this physical world. This realm of power is beyond human capabilities. It is transcendental; it is cosmic; it is supernatural; it is supra-human. The idea of impersonal force which is universally believed to exist is beyond the human physical existence (Oke 2006).

It is this impersonal force that man, having been so endowed through the initiation means, invokes to attain/accomplish *the impossible* in the ordinary eye and realm. Oke asserts that such a power (force) could be reposed/imputed in gods and forces of nature among others. If this power is so reposed in such non-humans as gods, sun, thunder, rivers and so on, then, the power is a mystical power as manifesting in the power of the numen. Such powers, it has been experienced, has been invoked to cause a rain in the dry season in Western part of Nigeria, for instance. And it is believed that such impersonal powers exist in Africa. In any case, the crux at this juncture of the discourse is that the impersonal powers do exist in Africa and they are capable of the impossible. This is a spiritual phenomenon in Africa and it is a manifestation of the power and potency of the numen.

Also, constituting the spiritual space in Africa - the African Pantheon - are the divinities, gods (desses) or deities. There are numerous divinities in Africa across the cardinal points each performing unique spiritual functions in the lives and worldview of the people who are the adherents of the divinities. Each divinity has the spirit that is linked to it in the process of influencing the mortal world from the cosmic ramification. Instances consist in Asase Ya, among the Ashanti

people who believe that the goddess guarantees them salvation of life. The people of Sawa revere Jengu, the water spirit. The people of Duala and Barwe in Cameroon see Jengu as fortune giver and mystic healer. The capability of Isis to grant Egyptians ovarian fecundity is definitely a mystical preserve, the parallel of which is seen in the Osun Oshogbo cult among the Yoruba in the Nigerian west.

Of no less significance in the constituents of the African spirituality is the cosmicity of Christianity and Islam, Eckankar, Buddhism as well as atheism. These organised religions and Consciousnesses host and nurse enabling spiritual/mystical potency. For instance, the Pentecost is descent of a spirit (Holy) and through this spirit wonders such as exorcism have been performed. The Bible records and recounts in Exodus 4:3 of the magic of the staff of Moses which turns a snake after Moses threw it on the ground in compliance with God's instruction. In the same vein, Tasawwuf in Islam especially in the Sufi Islam designates the esoteric ramification of the Islamic religion. Similarly, at the centre of Eckankar is the personal spiritual empowerment of an individual to access God through the presence of the Holy Spirit. In this case, the Hu becomes an instrument of divine access. Spiritual concerns are at the centre of Asia-rooted religions in Africa such as Taoism, Hinduism, Buddhism, and Confucianism. Their core spiritual attainment is offering spiritual explanations to human mystery and reaching the Supreme Being.

This is not all, atheist spirituality is a core component of the spiritual space in Africa. Atheists are abound in Africa and they are given to freethinking and reflections which often transpose them into the spiritual journey. There are other solo-faith groups such as Sat Guru Maharaji in Ibadan, Nigeria. The group professes a sustained attachment to the spirit. Its leader is known as a spiritual leader and the more-than-forty-hectares temple that hosts the followers of the faith is referred to as a spiritual village. The devotees of the faith are vegetarians and are of the view that their Supreme Head operates in and controls water, air and the earth (Abayomi 2015).

The religious space in Africa would not be complete without the mention of Zoroastrianism in places such as South Africa. The engagement of Zoroastrians in rituals, theodicy and monotheism is a spiritual affair which is age-long. Zoroastrian rituals are said to have

been passed down through a patrilineal chain of priests since the ancient Persia (Goodstein 2006). Zoroastrian spirituality is a pre-Christianity and pre-Islam spiritual kind and has sustained the momentum through ages. It still exists on the face of the African continent today.

Therefore, the spiritual sphere in Africa is made up of mystical consciousness (animism), impersonal power, influence of divinities, Pentecostalism, Tawwaf, Enkankar, Buddhism, atheist spirituality, Sat Guru Maharaji as well as Zoroastrianism to mention but a few of the many existing availabilities. These avenues are the means through which mortals in Africa seek and obtain favour and power from the transcendental realm, and access God, the Supreme Being. The African Spiritual ramification portends immense efficacy, yet untapped.

Turning to the Mystical Antidote

It is indisputable that technology (and science) is associated with, in fact, dependent on mystical powers. These powers manifest in the form of revelation of ideas to the initiate or in the form of instilling functionalities in contraptions. Credence to this is established by such concepts as paganism (technopaganism, neopaganism) neo-Druidry, Disk of Shadow and urban shamanism to mention a few. Associating with these nomenclatures is mystical consciousness like the cosmic affiliation with god of Frey in Bjorko, Sweden.

The connection of technology and its dependence on mysticism is observable in the statement that supernatural forces are capable of altering external reality and that it is the agents from the spirit world that grant the super-marginal powers in dreams or psycho-actives (Pavao 2003). In any case, there is the crucial mystical (the metaphysical) input and significance in technological processes and the performing functions of its commodities.

Given that the phenomenological formations of Africa excludes technological capabilities and instinct, the continent can only replicate and configure own technology. The only way (which has, however, been downright disdained) is the option of exploring the power of African spirituality in its varieties and forms; for instance, animism, Pentecostalism, Tassawwaf and the consciousness of the divinities. To this extent, the stakeholders in the African technological race, coming to the realisation that the theories they have mastered, are the physical perspective, should partner the custodian of African mystical powers in

their formulations, enunciation theorising assumptions or hypotheses. This is in the first instance. Custodians of recorded technoscientific theories need hold tete-a-tete with custodians of mystical power in Africa- the agenda at which necessarily has to be how the latter will intercede for the former in the pantheon, appeasing and appealing for empowerment (mystical) to receive power of the Word to infuse force of functions in physical contraptions - contraptions in wood, metals, water or earth which they might have made. This is a liaison which is bilateral - the binary of the custodians of theories and the custodians of mystical power. The latter possess stunning capabilities that need be harmonised.

Such capabilities include revelatory power of Orunmila in the West of Nigeria or that of Akui in Turkana, Kenya in East Africa. Orunmila can foresee and foretell coming incidents, especially, imminent dangers as affecting mortal beings. People of the Western part of Nigeria (especially during the ancient era) do seek guide from Orunmila on the appropriate steps to take on issues. Warriors in the early times did consult Ifa on whether to engage neighbours in a war or not. This power that resides in divination is very useful in Africa's race for own technology, as it can be used in the mystical revelation ramification of the technological process. Through it and more, the stakeholders or budding African technologists can receive capabilities, skills, know-how or dexterity in flash dream or the enquirers could be told of the potential visit of a spirit who is a random carrier of innovative know-how.

In this area, all the divinities of revelation, for example, Orunmila and Akui, can consult each other and liaise for a synergy. The synergy (numinous) needs be related with the potencies of other revelatory capabilities that are attained in Pentecostal prophecies. It could be a harmony in unit in which case an individual theorist would consult each of these avenues. And it could be harmony in unison in which case all the custodians of this power converge (for this purpose only) and influence each other for a unified power.

The power of witchcraft in Africa like that of the rituals of the Wicca in England could be a rich resource in the search for the enduring mystical power as the bedrock for African technology and science. There have equally been cases whereby African divinities like Taweret among Egyptians or Osun have made the barren to be fertile. In the physical,

than the two wooden rods on which the human (*Agere*) walks. Again, the agglutination of the two feet of the *Agere* to the edge of the two 12feet each of the rods is a mystery. Also, the ability of the *Agere* to genuflect and manoeuvre is stunning. In effect, the kinetics of the Yoruba *Agere* - that is the balance of the centre of mass (a human being) on two long rods and the agglutination of the feet of the *Agere* to the rod at the edge, is a phenomenal magic. When it is considered that the point of contact between the feet of the *Agere* and the rod is a flesh-wood contact, then it would be realised that agglutination of and between the two materials is not possible. However, it is done in the *Agere* cult; it could only be a power - an impersonal power. This mystical power could be an invaluable endowment which the continent can harness in the process of initiating its own technology and science (technoscience). Obviously, there is a connection between the mysterious balancing of the *Agere* on two wooden rods and aerodynamics - the former has the potential for the latter.

Also, to be explored is the power - the spiritual potency -imbued in anointing oil and the Holy Ghost in Christianity. The oil is no just a viscous liquid, it is imbued with tremendous divine power. The power with which the oil is imbued is through prayer and that such power is divine (Ukah 2008). The power imbued in anointing oil has performed therapeutic functions. It has combated affliction and repaired malfunctions in the body system. Such could be veritable in the build-up of Africa's medical science. When a genuine servant of God prays in water, the water is no more ordinary; it has been imbued with power. Such is a medicine. There should be a liaison with other power custodians in Africa especially in the pharmacological discipline in order to improve African medical science. In doing this, greater attention should be paid to the power contained in the pronouncements of genuine men of God. When they pronounce, effects occur immediately. This occurs in greater immensity than the African impersonal power realised through incantation. Through such pronouncements, they exorcise. This is a potential means through which force of effect can be imbued in a given contraption just manufactured.

Tasawwuf or Sufi spirituality needs be explored also. It is said to be mystical. The spiritual endowment of the Mawla (the Sufi Master) is acquired through *Majalis* (spiritual sessions). It is believed that Tasawwuf is an order of Sunnah. - purity and righteousness.

At sunnah.org/tasawwuf/sufidefrhtml, Kabbani calls such purity obligation and it is assumed that since purity - a key disposition towards spirituality - is an obligation to the practitioners of Tasawwuf, this naturally sustains their potential spiritual endowment.

The reflectionist religions such as Buddhism, Taoism, Zoroastrianism, Eckankar including atheist spirituality - all of which have firmly rooted in the African religious mysticism - have important roles to play in the process of instituting a spiritual base for African technology and science. Their capabilities in transcendental soul transmigration should be explored to full advantage. This becomes important since phenomenal inventions are not of this physical space but the supersensible ramifications. Any wonder then that the stakeholders in the African techno-scientific quest should embrace this resource? Experiences show that reflectionist tendencies especially in relation or reference to a demiurge have been phenomenal in making impact in our world.

Soyinka's prolificacy and sound literary contents could be attributed to his relationship with Ogun and the decision that his adopted "Muse would remain Ogun..." (*You must Set Forth at Dawn* 2006:50). In the same vein, Mark Zuckerberg has changed social interaction in the world through the Facebook invention. This might be an inspiration through atheist spirituality because "Zuckerberg is a confirmed atheist raised in a Jewish family", maintaining that Zuckerberg "... even lists the fact on his personal Facebook Page" (Saunders 2015). These two illustrations go to emphasise that reflectionist spiritualities are a resource for receiving ideas and endowment with which Africa can institute its own technoscientific prowess on the global stage.

In conclusion, the impediments

It is given that the mystical alternative will eventuate in the institutionalization of Africa's technology and science, certain tasks and impediments, however, tend to militate against the realization of the African techno-scientific ambition. The first is the will-power and humility of the theoretical academics. In Africa, academics are in the elite class - the consciousness that they are at the apex of the profession that trains the society. This puts them in an elevated position whereas

the custodians of mystical or transcendental powers are essentially the uneducated individuals. Yet, unification (a convergence or liaison) is desperately needed. The wide gap needs be bridged.

Again, the division emanating from the disintegration in Africa's religious sects (a phenomenon occasioned by fervent desire to make heaven and the dichotomy between refinedness and outlandishness) may pervert the Convergence. Some custodians of raw mystical power may see a contact with the other as a violation of the creed of their own mystical purity. To this end the disposition of custodian to complement becomes knotty.

Of further concern in Africa's quest for techno-scientific self sufficiency is the unbridled pro-Occidentalism in the collective psyche of Africans - the pervasive Western ideals overriding local sensibilities as well as the rootedness of Western commodities in Africa. All of these may nullify the necessity for indigenous technology and science, thereby obliterating the relevance of mystical convergence in Africa.

Despite these, however, the mystical Convergence in Africa is a certain pathway to the fruition of Africa's techno-scientific aspirations.