

Transformation of Production: Africa Redefinitive

(Rojukrthi Sudhakar Rao)

Abstract

The transformation of production in Africa conveys the broadest scope of usage of Engineering and Technology Appliances & Implements (ETAI) available in the present state of global knowledge but not relates to the African mode of production as a general plan of the African Societies prevalent in the Continent.

The idea is that the African economy, which means “pertaining to the production”, has been growing by diversifying the production with the help of upgraded technologies throughout. Greater education, improved communications and the shifting of people from the slumbering traditional rural sector of the economy to the vibrant modern industrial sector of hands-on technologies ensured transformation of production in Africa.

A new economy-oriented consciousness underpinning progressive production-transformation with expanded facilities by agricultural planners and programmers allowed the Continent to skip recurrence in the evolution of sentimental past for a blessed transformation of production by modernization and with the pursuit of economic development transcending the African continental borders in the 21st century.

Keywords: Africa, Agriculture, Engineering, Modernization, Production, Rural, Sentimental, Technology, Transformation.



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1. Introduction

Since the primitive times, throughout Africa, communities such as the “Pygmies”, had their economic (which means pertaining to the production) organization

in the forests by exchange of goods from ‘hunting and gathering’ for the ‘agricultural produce’ of sedentary tribes.



Fig . Pygmies of Africa

According to Catherine Coquery-Vidrovitch (1997, p.129—c/o Roy Richard Grinker and Christopher B. Steiner (ed.) 1997), “until recently, African traditional societies have generally been studied in isolation and with emphasis on the particular “but not on the African mode of production. Further , she says that “ Economic anthropologists are only just beginning to understand the kinship structures of subsistence societies , but by concentrating on the fact of subsistence , they have

underestimated the importance of the organization of production“.

It is asserted that the “Black Africa is the one place in the world where agriculture was least liable to produce a surplus. Agriculture and craft techniques were particularly rudimentary (no wheel or plow: the only tool was the hoe). The necessity of improving production with the aid of new tools or large public works was never felt “(Catherine Coquery-Vidrovitch, 1997, p.136—c/o Roy Richard Grinker and Christopher B. Steiner (ed.) 1997).

2. Definition

E.E.Evans-Pritchard (1997, p.31 c/o Roy Richard Grinker and Christopher B. Steiner (ed.) 1997) affirmatively concluded that “the world, peoples and cultures all existed together from the same remote past!“

This affirmative statement can be taken as the pointer to the notion of Area Studies in Africa with the basic understanding that a Man should be distinguished from

an Area because he has a tongue & a heart and forms the raw material giving out his History, Philosophy, Arts, Culture and Society. But, an Area has its own geographical features while at the same time taking into its positive stride the invisible chapters of Man’s History, Philosophy, Society, Arts, Culture & Economy. Here is the contextual diagram to show that that Area is now a Discipline culminating into Area Studies.

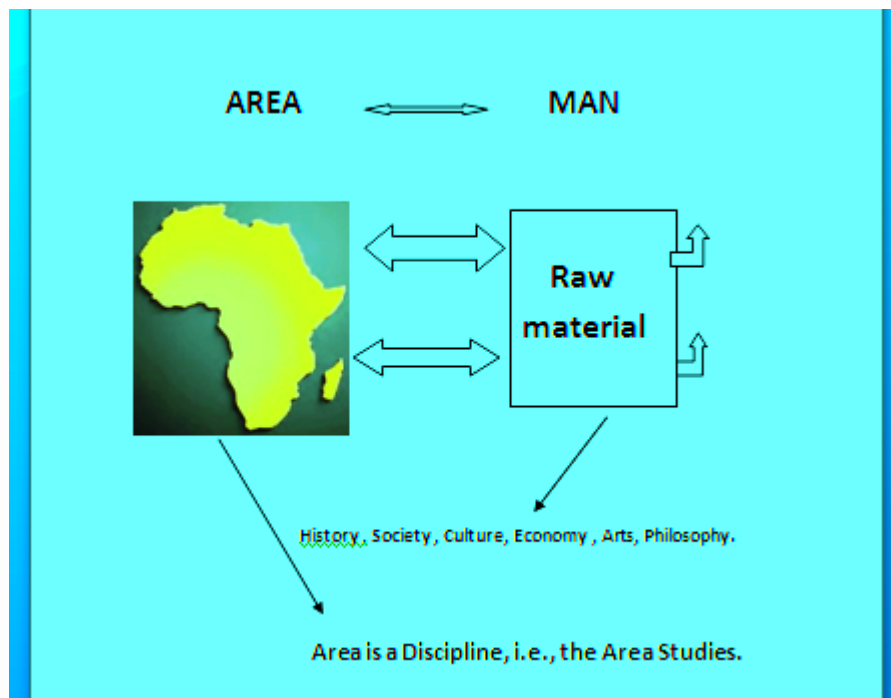


Fig. Area Studies in contextual diagram

It is my vision for the purpose of an investigative definition of the transformation of production in African Continent that transformation must have been to a non-measurable extent suffered from the influence of the remote-controller 'past'. I deduce then and therefore, as a defining activity, that "just like human beings cannot escape the past-present-future's inseparable-bond-settings, the transformation of production too is a phenomenon bound by the similar settings.

So, the importance of the organization, transformation, conversion and modes of production lies in the

3. Literature Survey

Leacock and Lee reported that "hunter-gatherer peoples have participated in exchange with farming and market societies for hundreds of years (in India, South-east Asia , and East Africa) while maintaining a foraging mode of production " (Leacock and Lee 1982 ,cited in Jacqueline S.Solway & Richard B.Lee , 1997, pp284--c/o Roy Richard Grinker & Christopher B. Steiner (ed.) 1997 .

It has been said that " exchange is a fundamental part of human life and appears in all cultural settings "--(Mauss 1925 , Levi Strauss 1949 , cited in Jacqueline S.Solway & Richard B.Lee ,1997 , pp284-- c/o Roy Richard Grinker & Christopher B. Steiner (ed.) 1997) .

realization that the African traditional societies were, indeed the 'beginners & starters' (before all the other 'arrived later' Societies after them), of many organized ways of production with elementary methods of exchange and division of labor in such places which were usually called visiting local food markets by investing their natural traits of control, discipline and mutual trust factors in tribal life. Obviously and aptly, the African Continent has been called, as per the Sciences of Social & Economic Anthropologists, the motherland of the human race.

Thomson, Wilmsen , Earl & Ericson , Ericson & Torrence claim that "even 'with hunters in a world of hunters ', exchange was a part of social life " (Thomson 1949, Wilmsen 1974, Earle & Ericson 1977, Ericson 1977 , Torrence 1986 cited in Jacqueline S.Solway & Richard B.Lee, 1997 , pp284--c/o Roy Richard Grinker & Christopher B. Steiner (ed.) 1997) .

Now, the following are two case-study-exemplary mode investigations into the Iron production followed by the

Agricultural production to highlight the transformation

of production in Africa which is into the 21st century.

4. Case study

Transformation of African Iron-production technologies

Iron production was a particularly important pre-colonial African technology, with iron becoming a central component of socioeconomic life in many societies across the African Continent

At some point in the first millennium (BC), evidence for iron-smelting technologies began to appear in several core regions (eastern Africa, and the northwestern Sahara). The ability to obtain iron metal from an ore through smelting-technologies spread to all corners of Africa like a revolution. Prior to the development of smelting technologies that could extract iron metal from an ore, iron was available only in isolated naturally occurring forms, predominantly nickel-rich meteoritic iron in areas of the Nile Valley and the Red Sea coast. This “iron from the sky” was highly prized, appearing in the archaeological record almost exclusively in burial contexts.

Iron has played a significant role in the socio-cultural, economic, and environmental spheres of many African communities, past and present, not only for utilitarian items, but also in the creation of symbolic, artistic, ornamental, decorative and ceremonial objects.

Explorations of iron production technologies are well suited to understanding the material demands and needs of past populations and past craftspeople. The archaeological remains found on iron production provided detailed information about the past production technologies.

Iron became and remained a highly valuable material in those communities that produced and used it. The malleability and strength of iron—transformed into tools, weapons, jewelry, or something else entirely—meant that the control of iron production became embedded in negotiations of power and prestige, and iron became a cornerstone of social, economic, and political life. Certainly, by the end of the first millennium AD, iron had become an everyday material across most of the continent, important not only for its physical properties and applications in agriculture and domestic life, but also for the symbolic role it played in the rituals and customs of many African societies.

In modern times, microscopy used in Africa is the primary means for iron production and iron-working technologies used in Africa.

Experimental archaeology and reconstructions of iron technologies have played a significant role in the development of iron production technologies operated in the real world.

5. Case Study

Transformation of African Agricultural Production Technologies

The twenty-first century's game-changing technologies saddled in Africa currently are the dynamic force in the African agricultural production's transformatory catalysis.

Artificial intelligence and machine learning – when combined with satellite and drone imagery, the internet of things and spatial analytics – are revolutionizing how accurately farmers can treat their crops and optimize harvesting opening up the potential for much more precise crop protection and tree care. The pace of digital transformation in African agriculture enabled Africa leapfrog the rest of the world. With world-class

technology platform in Africa, the potential of well-knit technology agribusiness networks across Africa has brought fame and name to the Continent that it is rising in the 21st century.

Technologies for African Agricultural Production Transformation are essentially knowledge and innovation based response to the recognized need for scaling up proven technologies across Africa. Technologies for African Agricultural Transformation (TAAT) provides the needed, proven agricultural and food processing technologies.

TAAT's approaches revitalize and transform agriculture while restoring degraded land and maintaining or strengthening the ecosystems that underpin agriculture, while modernizing and more

fully commercializing agriculture. It has been estimated that overall TAAT will lead to 120 million tons of additional raw food production per year. It is a Regional Technology Delivery Infrastructure (RTDI) made up of the National Agricultural Research Systems (NARS), represented by their continental umbrella, the Forum for Agricultural Research in Africa (FARA), African Agricultural Technology Foundation (AATF) with an emphasis on agro ecological zones and their priority commodities.

The principal implementation units of TAAT are Commodity Technology Delivery Compacts (CTDC), a platform of all actors in the seed, primary production, and primary processing components of agricultural commodity value chains. Clearing house is the decision making body of the RTDI when it comes to selecting which technologies to disseminate and scale up. The objective of the Clearinghouse is to decide which proven agricultural technologies proposed by each Crop/Livestock compact group can be rolled out and taken to scale.

Scientists are calling for technological transformation in how Africans undertake agricultural production to help improve food security on the continent. The scientists emphasize speedy progress in the Agri-sector over the years and encourage willingness of stakeholders to

embrace fresh innovations, which they say desirable change.

A high level achievement on application of science, technology and innovation in harnessing African agricultural production transformation has already taken place to so continue. The Ministry of Science, Technology and Innovation of Uganda and the African Agricultural Technology Foundation (AATF) took up the theme: "Integrating the path in Africa's agricultural transformation", with Scientists, civil society representatives and government officials across the continent on the technologies applied to help transform agriculture on the African Continent. Africa spends more than \$35 billion importing food every year, although the continent has the capacity to produce a lot of the imported foods. This is because more than 70 percent of the workforce on the continent being engaged in agricultural production for their livelihoods.

Africa believes in the adoption of technological innovations can help fix all problems giving rise to appropriate timely solutions adding that it is their responsibility to deliver Africa out of starvation, hunger and poverty by encouraging investing in and adopting science. Advances in agricultural technologies and biosciences, in general, are immense, thanks to the convergence of crop science, biology and chemistry engineering and digital technology.

6. Conclusion

Encouraging signs of growth in Africa heralded development era of rapid transformation of production. In an effort to promote the future success of African transformation, the traditional production practices are sidelined in preference to the transformation practices in African States. Success vitally depended on agricultural

development and the African public support for agricultural transformation and the recognized development challenge. Transformation also depends on industrialization strategies and Africa's winner-picking industrialization helped other aspects of transformation like home-grown and export-oriented industrialization led by private African entrepreneurs.

7. References

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This is my 4th Research Paper @ IJSER –UGC Recognized International Journal for African Studies & History’s Research Papers from the pen of Student-Research-Scholars world-wide pursuing Africa Area Studies at the Universities. The other 3 published Papers are as follows in this Journal in the August, 2019 edition.

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Lasting peace between Ethiopia and Eritrea could herald a new era in Horn of Africa



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