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I. INTRODUCTION

I must begin by first of all explaining my philosophy and thought. My philosophy and thought is that I believe that Black/African people, must acknowledge their own body of knowledge that is self-reliant and operatively ours. After research and study of the book "Globalization and the New World Order: Promises, Problems, and Prospects for Africa in the Twenty-First Century, Edited by Felix Moses Edoho". I was much encouraged with my findings. These are the topics I felt would agree with my philosophy and also help in the development of Black/Africa:

- AFRICA ON THE EVE OF THE TWENTY-FIRST CENTURY,
- DISTRIBUTION OF GLOBAL EXPENDITURE FOR R&D,
- MARGINALIZATION OF AFRICA IN THE GTS,
- APPROACHES TO S&T DEVELOPMENT IN AFRICA,
- TECHNO-GLOBALISM AND THE PROSPECTS OF AFRICA'S TRANSFORMATION IN THE TWENTY-FIRST CENTURY,
- POLICY FRAMEWORK FOR TRANSFORMING AFRICA IN THE TWENTY-FIRST CENTURY.

My philosophy is of independence and self-determination for Black/Africa. To utilize the book this is an Afro-pragmatic self-reliance analysis approach to this research and study. Philosophically I believe that Black/Africans have the solution to the problems, and prospects of progress in Africa within their very existence. My philosophy is that of Blacology. These above sections in the book tend to agree with my philosophy.

As a Blacologist my point is to establish Blacology as a viable discipline within the Global and international extended Black/African Culture. Also to acknowledge there are laws and organizations that will provide support for the research and development of Blacology in the 21st Century on the African Continent. How can Africa be technological when it does not have its own Interdisciplinary Culture Science? Kwame Nkrumah said, "Socialism without science is void".

There was much information to verify my position and theory. The Editor Felix M. Edoho pointed out some pragmatic and lawful resources for a sustainable Black/African research and development in the areas of science and technology. There are opportunities for Blacology in Black/Africa. I have documented a few. This research also proves that Black/Africa has the scholarship and resources to develop the research instrument in the interdisciplinary field. In order to be ready for science and technology you must have your own scientific thought.

In analyzing this book I am utilizing my philosophy of Blacology. The concept of Blacology is developed from the authenticity of Black/African experience. I have also provided some definitions to give understanding to my philosophy of the Cultural Science of Blacology following my conclusion. Blacology may also consist of it's own Cultural Linguistics or Ebonics. In addition, it is not restricted to the Euro-centric Language Arts. This give Blacology it's own significant identifiable writing form. It is the utilization of the ideals, philosophies, theories and Beliefs of Black/African scholars and historians of the past and present. In this book the editor utilizes the terms Afro-pessimism, Afro-pragmatism, Afro-realism. These terms inspired an Afro-optimistic nationalistic vision for the future in the self-determination of Black/Africa's growth and development in Globalization. As a Blacologist I am always encouraged with
the creative genius of Black/African authenticity. The future of Africa depends on the utilization of its own cultural knowledge, talents, and gifts. This research is to show that there is an optimistic future in Black/Africa and that there are resources that may be used to achieve success in post-colonialism and the New World Order. It also shows that my philosophy is prevalent in the evolution of Africa in the Twenty-First Century.

II. AFRICA ON THE EVE OF THE TWENTY-FIRST CENTURY (Page 12.)

On the eve of the twenty-first century, Africa is a beleaguered region. In fact the region has been involuntarily delinked from the global economic system. As a result, disturbing images emerge from Africa. If the 1960s were a decade of unguarded optimism and great expectations in Africa; the 1970s characterized by political instability and Afro-pessimism; the lost decade of the 1980s underpinned by widespread disillusionment; then the 1990s are definitely characterized by outright cynicism and resignation. Such a symbolic sense of hopelessness and apparent helplessness in the region has been extensively documented. The Economic Commission for Africa's (ECA, 1983) analysis and projection have turned out to be prophetic. Consequently, analysts no longer talk about Africa's progress, but its survival. The overwhelming conclusion is that while "the rest of the world is moving 'for-ward' by most of the accepted indicators of progress, Africa is moving backward" (Timberlake, 1985:7).

Within the international development community, "everyone is optimistic about East Asia and pessimistic about Africa" (Emmerij, 1992:133). This is ironic because in the 1960s it was Asia. Yet, over the past three decades, many African countries have receded into the "never to be developed world" (Pirages, 1990:2), euphemistically labeled the Fourth and Fifth Worlds. Africa has missed the major milestone of changes humankind has experienced in the twentieth century. Globalization has bypassed the region.

The global development cartography has been redrawn, and the new one excludes Africa. The exclusion of Africa from the new world development map stems from the fact that for much of the globe, Africa is an inevitable source of bad news: perennial famine, persistent economic crisis, abject poverty, political corruption, economic mismanagement, blatant violation of human rights, civil wars, and gross carnage wreaked by merciless warlords (Chege, 1992; Adedeji, 1993). Africa is perceived as a region where the democratization hurricane that is sweeping through other parts of the globe has been thwarted, and where the prodemocracy movement has been crushed. These catastrophic images are the roots of "Afro-pessimism" or "Afro-realism" (Rasheed, 1993:55; Callaghy and Ravenhill, 1994). Whether these images would sway Africa "away from the era of Afro-pessimism to a healthier reappraisal of its situation-a movement toward Afro-pragmatism" (Lardner, 1996:460) remains to be seen.

Depressing statistics substantiate the catastrophic images of the region such that "To think of Africa is to think of poverty" (O'Connor, 1991: 1). African countries dominate the rank of the poorest economies in the globe. In 1984, there were thirty-six low-income economies on the World Bank table, twenty-three of which were in Africa. In 1991, the number of low-income economies increased to forty of which Africa accounted for twenty-seven countries (World Bank, 1986, 1993). This means between 1984 and 1991, four more African countries became poorer Twenty-four SSA countries have been
Globalization and the New World Order

classified as unable to produce enough food to feed themselves, and "today one out of every five Africans depends for his/her survival on food imports, about 25 percent of which is provided by food aid" (OAU, 1986: para. 16). Africa is the only region in the world where the number of people in poverty is projected to increase substantially in the year 2000. Political turbulence, ethnic rivalries, and armed conflicts have uprooted people from homes and lands, turning them into desperate refugees and exposing.

The record of Africa's economic performance leaves much to desire. The growth rate of SSA's gross domestic product (GDP) was 6.4 percent annually during 1965-73; that declined to 2.3 percent during 1973-80 and dropped precipitously to a record low of -1.7 percent per annum in 1984. The impressive GDP per capita growth rate of 3.6 percent recorded during 1965-73 had dropped to 0.3 percent during 1973-80 and became negative (-3.4 percent annually during 1980-86 (World Bank, 1987)). Of the twenty-seven SSA's countries on the list of low-income economies, fifteen recorded negative GDP per capita growth rate ranging from -0.3 percent (Ghana) to -4.1 percent (Niger) during 1980-9 (World Bank, 1993: Table 1).

Economies of countries in SSA are crumbling under the heavy weight of debt burden which has exacerbated the misery index. The 1996 world debt table classifies forty countries as heavily indebted; thirty-three of these are in SSA. The tables show that the total debt of SSA countries increased by 5 percent in 1995 to $223 billion (West Africa, March 25-31, region. Only twelve SSA countries have managed to service their debts regularly since 1982. But the impact of debt on the fragile economies of SSA is the severest in the world. Mozambique's total external debt as a percentage of export of goods and services is 1,745 percent, while Tanzania's is near 1,000 percent (World Bank, 1991:250). Africa's debt, unlike Latin America's, does not threaten the global financial system. The reason is that Africa is a hemisphere away from the world's financial magnetic poles. For example, because of the proximity of Mexico to the United States, the Clinton administration was concerned about the Consequently, the administration expeditiously devised an economic package to shore up the peso. The International Monetary Fund (IMF), World Bank, and International Bank of Settlements joined the United States in the peso rescue, mission.

III. DISTRIBUTION OF GLOBAL EXPENDITURE FOR R&D (Page 107, 108)

The distribution of global R&D expenditure is presented on table 6.3. During the decade 1970-80, global funding for R&D increased by 3.35 times, in current U.S. dollars, to $208 billion by 1980. In that period, the share of AICs more than tripled. Although the share of TWCs also increased in relative terms, it was only 6.2 percent in 1980, illuminating their disadvantaged position in GTS. All this has considerable effect on the quantity and quality of R&D infrastructure and investment in personnel between the AICs. It also reveals the glaring differences in the innovative activities as well as ability to appropriate the benefits of S&T.
A. Table 6.3 Estimated Global Expenditures for R&D (Page 107.)

<table>
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<th>Area</th>
<th>Year</th>
<th>Estimated Amount (million of U.S.$)</th>
<th>Total</th>
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<tr>
<td>World Total</td>
<td>1970</td>
<td>62,101</td>
<td>100.0</td>
</tr>
<tr>
<td></td>
<td>1980</td>
<td>207,801</td>
<td>100.0</td>
</tr>
<tr>
<td>Developed Countries</td>
<td>1970</td>
<td>60,545</td>
<td>97.5</td>
</tr>
<tr>
<td></td>
<td>1980</td>
<td>194,852</td>
<td>93.8</td>
</tr>
<tr>
<td>Developing Countries</td>
<td>1970</td>
<td>1,556</td>
<td>2.5</td>
</tr>
<tr>
<td></td>
<td>1980</td>
<td>12,949</td>
<td>6.2</td>
</tr>
</tbody>
</table>

Source: UNESCO, 1988:5-15

Therefore, TWCs are not homogeneous. Differences exist between them in forms of their commitment and investment in developing national technological capabilities. For example, six countries (India, Argentina, Brazil, Egypt, South Korea, and Mexico) accounted for 60 percent of the total R&D expenditure of TWCs. In Latin America and the Caribbean region, Brazil leads in R&D activities; in the Arab region, Egypt is superior; and in South and Southeast Asia, India controls over half of all R&D expenditures and manpower. "In Black Africa, however, the level of R&D activities is so low that it would not be meaningful to search for a comparable pattern of stratification" (Rittberger, 979:23).

IV. (Page 108) MARGINALIZATION OF AFRICA IN THE GTS

Africa has a marginal status in the GTS because of its lack of, and declining, ITC. In 1976, only 5 percent of modern technologies utilized in Africa was under indigenous control. By 1982, even that low level of control declined further to less than 4 percent (Thomas, 1985:250). As a result, the gap between the level of scientific and technological development of the African region as compared with that of the other Third World regions is ever widening. The lack of ITC means that African countries do not have the capacity to assess their resources, analyze their needs, or formulate a programmatic response to socioeconomic crisis (Edoho, 1994). Equally, Africa lacks the capability to conceptualize and analyze the politicoeconomic, sociocultural, and environmental implications of ITT for their economic development (see Table 6.4).

Little wonder that Africa is more dependent on foreign technical experts than other regions. A 1993 UN Development Programme (UNDP, 1993:127) study indicates that "Sub-Saharan African is the most heavily aided region in the world." At present, the International Labor Organization (ILO) deploys about 50 percent of its global technical
cooperation in Africa. This dependency makes the region economically vulnerable. In the words of Morehouse (1979:55),

V. APPROACHES TO S&T DEVELOPMENT IN AFRICA (Page 111.)

Various approaches toward Africa's developmental problems and its technological dilemma take place at three levels: multilateral, regional, and national. Understanding these approaches is important in view of the need to provide realistic and objective policy options for Africa as we enter the twenty first century.

A. Multilateral Approach (Page 111.)

ITT is a dominant issue in the UN forum. Having accepted the ideological premise of economic paternalism and the technoeconomic logic of ITT, the UN General Assembly Resolution 1710(XVI) designated the 1960s as its First Development Decade. The objective was to "accelerate progress towards self sustaining growth of the economies of the individual nations and their social advancement so as to attain in each underdeveloped country a substantial increase in the rate of growth, with each country setting its own target, taking as the objective a minimum rate of growth of aggregate national income, of 5 per cent at the end of the decade" (United Nations, 1962).

To achieve this objective, the UN Secretary-General enumerated six critical tasks that had to be achieved. One was to redirect S&T to increase the attention given to specific problems of TWCs. By 1970s, however, it was obvious that the objective of the First Development Decade was not achieved. During the period, the gaps between the AICs and TWCs had actually widened. At the threshold of the Second Development Decade in the 1970s, widespread optimism suggested that production technology and management techniques would be transferred to TWCs in such a way as to benefit them and to bridge the gaps. The first major document with this special emphasis on science and technology as levers for accelerating the development process in TWCs was the International Development Strategy of the General Assembly for the Second United Nations Development Decade [General Assembly Resolution 2626(XXV)].

By far the most significant focus on S&T for development as a critical issue on the agenda of the UN-mediated North-South dialogue contains in the resolutions adopted in the 1970s. At its Sixth Special Session in May 1974, the UN General Assembly formally adopted the Declaration on the Establishment of, a New International Economic Order (NIEO) in Resolution 3201 (S-VI). The, Programme of Action on the Establishment of the NIEO in Resolution 3202 (SVI) of 1975 expressed support for the principles of "giving to the developing countries access to the achievements of modem science and technology" and of "Promoting the transfer of technology and creation of indigenous technology for the benefit of developing countries in the form and in accordance with procedures Which are suited to their economies" [Declaration, paragraph 4(p)]. Elaborating these principles, Article 9 of the Charter of Economic Rights and Duties of
in General Assembly Resolution 3281 (XXIX) of December 1974 declared: "All States have the responsibility to co-operate in the scientific and technological fields for the promotion of economic and social progress throughout the world, especially that of the developing countries."

Article 13 of the charter also provides that "Every State has the right to benefit from the advances and developments in science and technology for the acceleration of its economic and social development" [paragraph 1]. It stresses the need for international cooperation to strengthen the S&T infrastructures of TWCs [paragraph 3]. Finally, the resolution of the Seventh Special Session on Development and International Economic Cooperation devotes section IV to the matters of S&T for development, containing the agenda and program of work of the recommended UN Conference on Science and Technology for Development [paragraph 7]. It stressed the necessity for negotiations on a code of conduct for ITT.

B. Regional Approach (Page 112.)

Regional approach to S&T development in Africa derives its impetus from the steps taken by the multilateral and international agencies to promote region-specific S&T efforts. In 1964, a ministerial conference on the organization of S&T research was held in Lagos, Nigeria, under the auspices of the UN Educational, Scientific and Cultural Organization (UNESCO). The conference This view was echoed by the Conference of African Member States Responsible for the Application of S&T to Development in Africa (CASTAFRICA 1) held in Dakar, Senegal, on January 21-30, 1974. CASTAFRICA I called for the formulation of S&T policies and the establishment of teaching and research Recommendation 1(4) urged the member-states to increase their annual expenditure on R&D and support "scientific and technological public services (STS) so as to attain, if possible before 1980, the target figure of 1 percent of the Gross National Product." The role of the UN Industrial Development Organization (UNIDO) in supporting the development and utilization of S&T for industrialization of Africa is spelled out in the General Assembly Resolution 2152(XXI).

The epitome of regional approach to S&T development of Africa was the meeting of African heads of state and government in Lagos on April 29, 1980. Met under the aegis of the Organization of African Unity (OAU), African leaders unanimously adopted the famous Lagos Plan of Action for the Economic Development of Africa, 1980-2000 (OAU, 1981). The document emphasizes "the need to take urgent action to provide the political support necessary for the success of the measures to achieve the goals of rapid self-reliance and self-sustaining development and economic growth." African leaders pledged to commit themselves both individually and collectively on behalf of their governments and people to "put science and technology in the service of the development by reinforcing the autonomous capacity of our countries in the field" supply (OAU, 1981). The blueprint has been depicted as "Africa's economic Magna Carta" (Adedeji, 1985:9).

Africa's Priority Programme for Economic Recovery (APPER), 1986-90, also adopted by African heads of state and government of the OAU, echoed a similar message with a chapter on S&T, stressing in paragraph 37 that no country has attained any
breakthrough in its economic development without a minimal S&T base. Adopting The Kilimanjaro Declaration, CASTAFRICA 11 (held in Arusha, Tanzania, on July 15, 1987), strongly appealed to the member-states to define and implement clear S&T policies; prepare and implement plans and programs for indigenous S&T development; and mobilize financial resources for the promotion of S&T for development (UNESCO, 1987).

VI. TECHNO-GLOBALISM AND THE PROSPECTS OF AFRICA'S TRANSFORMATION IN THE TWENTY-FIRST CENTURY (Page 116.)

It was stated in Chapter I that the ongoing advances in the frontier technologies are redrawing a new economic development map that excludes Africa. Yet, some are sanguine that advances in S&T would bring about a harmonious global society. This would happen only if all societies evolve ITC to harness S&T to meet their basic needs. Absent ITC, advances in S&T would threaten marginal countries in the GTS. At present, Africa's economic existence and material conditions are already seriously threatened by the new emerging technologies. Technology-driven globalization is exposing the region to further peripheralization in the global race for development.

Raw materials that constitute the major exports of most African countries are already threatened by aggressive competition resulting from the artificial creations produced through biotechnology in the University of Minnesota. This development could wipe out the entire export base of Kenya and Tanzania which depend on sisals for export incomes. Low-quality cocoa butter has been manufactured through biotechnology in Cornell University and in the Nestle and Hershey Laboratories. This signals the beginning of the end of the cocoa-producing African economies (Sy, 1992). (Ndiaye, 1993:122).

The end of the Cold War has brought trauma to Niger's economy. Niger depended heavily on uranium for its foreign exchange. Although the world market price for uranium has been low since the early 1980s, it actually collapsed as a result of the end of the Cold War. The contribution of uranium to Niger's revenue has since noseived from 40 percent to 8 percent. In addition, there are many synthetic substitutes for African raw materials, ranging from leather to artificial diamonds. In telecommunications, one ton of copper wire can now be replaced by a mere twenty-five or so kilograms of fiberglass cable. This can be produced with only 5 percent of the energy needed to produce the copper wire it replaces.

Historically, Africa was inserted into the international economy through trade in commodities, cheap labor, and as a major source of rare materials, such as copper, zinc, diamond, and uranium. TNCs in the region were primarily resource-seekers: they were inclined to relocate their production plants and industrial facilities to Africa in order to exploit the raw materials and cheap labor. In the past decades, growth in GDP worldwide was heavily dependent upon the use of basic materials such as energy, steel, copper, zinc, and so forth. Since the 1970s, there has been a systematic decoupling of natural resources from GDP. Advances in technologies account for the difference between growth in the use of materials and growth in GDP. Colombo (1988:26-27) refers to this fewer raw materials are now needed to achieve a higher level of output.
Economic growth today is driven by new emerging technologies and their applications. During the past two decades, "economic growth has been associated with new technologies rather than with the use of natural resources" (TCMD, 1992:101). In this age of globalization, raw materials play a very limited role. Africa's dilemmas are further compounded by the disintegration of the former USSR and the demise of communism. For one, Africa is no longer of geostrategic significance to the West (see Chapters 1 and 3). The end of the Cold War has opened up new markets and sources of cheaper raw materials and more technically qualified and highly regimented labor in Eastern and Central Europe which TNCs are eager to exploit. As the basis of competition shifts from the natural resource-endowment toward the acquisition, generation, and manipulation of knowledge, Africa's marginalization intensifies.

Marginalization of Africa stems from the fact that the region lacks ITC to gradually disengage itself from raw material production. The lack of entrepreneurial, management, marketing, and technical skills means that African countries have not been able to institutionalize technology-based industrialization. This dilemma is exacerbated by the fact that control over technology is intensifying as TNCs are taking steps to further circumscribe access to it. The implications of globalization is clear: "unless the continent [Africa] succeeds in 'building its own science and technology base and adapts it to its production needs, it simply cannot expect to participate significantly in the world economy" producing African economies (Sy, 1992). (Ndiaye, 1993:122).

VII. POLICY FRAMEWORK FOR TRANSFORMING AFRICA IN THE TWENTY-FIRST CENTURY (Page 118.)

The technology-driven global environment is becoming increasingly difficult for Africa. There is no indication that this environment will change in the near future in favor of the region. Moreover, the whole world is not going to wait for Africa. The region needs a realistic assessment of its status in the global order. The region should be pragmatic; it needs to see the world as it is, not as it ought to be. Such a mindset calls for concrete S&T policies to counteract marginalization, reverse economic misfortune, and to advance its interests. Elements of such policies would include providing enabling environment, developing technological capabilities, and creating sociotechnical infrastructure. African countries need to provide enabling environment for technology-based development to establish roots. Enabling environment includes political stability and national sense of direction. Political stability and policy continuity go hand in glove. Because policies are made by people with differing perceptions, when a change in political authority occurs, as is commonly the case in Africa (see Chapter 2), not only do individuals change, but so do the orientation toward S&T policy and the relative weight accorded it.

The lack of political stability accounts for capricious changes in S&T policies and national direction. This has affected human capital development. Edward Jaycox, the World Bank's vice president for the Africa Region, has observed that Africa's experience contrasts sharply with that of other regions: "Despite political ups and downs, these regions have managed to invest consistently in human capital and institutions. As a result,
they have been able to exercise control over economic events" (Jaycox, 1992:47, my italics). This partly explains why NICs are active players in the globalization process, while African countries are marginalized. Political repression, civil wars, and harsh economic conditions are reasons why highly qualified and skilled people have left African countries en masse to AICs, where they seek rewarding opportunities. A UNDP (1990) report indicates that by 1987 one-third of Africa's skilled people had moved to Europe. N war-torn Sudan lost significant proportions in virtually all areas: 17 percent of medical doctors and dentists; 20 percent of university teaching staff, 30 percent of engineers; and 45 percent of surveyors left the country in 1978 alone. For Ghana, it has been estimated that 60 percent of medical doctors trained in the early 1980s are working in the Europe, the United States, and elsewhere abroad the region as a whole is estimated to have lost up to 60,000 middle and high level professionals between 1985 and 1990 (West Africa, May 4-10, 1992:749). Yet, Africa hosts about 100,000 expatriates as experts and consultants at a cost A $180,000 each per year. African countries must learn to rely on their own manpower people for technical and management advice.

The brain drain has weakened Africa's institutional and human capacities which are prerequisites for development. This problem is even more severe when it comes to identifying and managing change and the relationships between African economies and the global world. African countries need to pay greater attention to developing specific skills. These include the skills to operate plants or businesses, create new productive capacity, and innovate, or adapt, modify, and improve production techniques. The ability to evolve ITC and access technology depend on the type and quality of training for local personnel. ITC should enhance African ability to acquire and use foreign technology. These include the ability to search for and identify suitable technology as well as evaluate its utility. This requires creating a core of technical entrepreneurs with skills to identify investment opportunities and mount projects. The productive application of capital and technology for economic growth entails an appropriate mix of complementary skills (technical, managerial, vocational, and entrepreneurial).

African countries need to develop dynamic sociotechnical systems. The effectiveness of such systems is dependent upon a much higher level of funding than what is hitherto the case in most African countries. Development-oriented sociotechnical systems should evolve the capacity to transform the knowledge creating apparatus, R&D institutions, and the national industrial order. These would require core professionals: scientists, engineers, technicians, technologists, entrepreneurs, and managers. The activities of these professionals must be effectively coordinated to induce organic linkages, complementarities, and synergies. Its extreme technological backwardness prevents Africa from relying on the conventional process of technology transfer. The existing technology transfer regimes operate to the advantage of technology suppliers. As late-comers to industrialization scene, African countries should develop the skills to acquire and use, or if need be steal or copy, foreign technology. However, only those who have requisite skills can successfully steal, copy, or use foreign technology. None of the now-developed countries depended solely, as Africa does, on the formal transfer of technology. History is replete with how the United States and Japan used informal "channels" (that is, reverse engineering) to develop their national technological capabilities. The frequent trade disputes between the United States and China center on their very strategy.
VIII. CONCLUSION:

Africa on the Eve of the 21st century (Page 12.) After reading the overview three words stayed in my mind: afro-pragmatism, afro-pessimism, and afro-realism. These words inspired, motivated, and encouraged me to think of the word afro-optimism. I am not sure if the author has written such a word. But my philosophy of Blacology is surely an afro-optimistic perspective when it comes to the advancement of Black/African people, their culture, land, and countries. Philosophically I am always seeking to promote optimism as a insightful spiritual initiative. On the eve of the 21st Century the future of Black/Africa must be looked at with great optimism. There was a time in black/African Culture our village was the world. It was all that we knew. Then strangers can an took us all about the world and scattering to all four corner of the earth. Now our culture is all over the world. The sun never sets on Black/African Culture. This a reality that goes without notice. It is a silent truth. This is truly afro-optimism. It is time to take look at what Black/Africa has done without effort. The phenomenon is so great one must be impressed with this accomplishment. The IMF and World need not look far to verify the ability of Black/Africans and what they can do to contribute to Globalization and the New World Order in Africa in the 21st Century. Just take a look at what the G5's and G7's owe to Black/Africa for unpaid labor of slavery and pay reparations to Black/Africa. When you talk about a debt that is owed to G5's and G7's you must look what they owe Black/Africa. In order for justice to be served the West and all those who participated in the Arab and European Slave Trade owe a debt to Black/Africa for slavery that has yet to be paid. There is truly afro-optimism with reparations in the future for Africa in the 21st Century.

(Estimated Global expenditures for R&D table 6.3 Page 108) This is a excellent example of what the research of Blacology has revealed. This section states, that the R&D or Research and development expenditures are so low in Black/Africa. Let us make an important point about Black/Africa. It is time that Black/Africans be specific about the growth and prosperity of Black/Africa and their culture. It is good to be worldly as far as the global view is concerned. One can take a page from the religious document or scriptures. In the Black/African Culture it is customary to sweep before your own door before you clean up some one else's house. It is obvious that Black/Africa has a lot of work to do in order to get it's house in order. It is time to do business in the Black/African culture. The truth be told Africa is not a country it is a continent made of many countries with a multitude of cultures in each individual state. The most important phenomenon is culture. Culture is the one thing that is significant in all of Africa. Each country is infested with the advent of culture, not one but many.

When you talk about research and development you must be honest about who has research instruments and who does not. Black/Africa does not have an interdisciplinary science to conduct research that would be applicable to its own development. Black/Africa has been using European models for it's research methods. Black/Africans have been receiving and obtaining an education form Europeans since
before the Christians area in Africa. Black/Africa have utilized the research and development of the Arabs and Europeans. There was a time when this was all right.

After a thousand years of European and Arab mentorship in education. It is time for Black/Africans to do some research and development expenditures of their own. Not only is it time to do some research of their own. It is time to produce an interdisciplinary science of their own. To not do so is to agree with the Arabs and the Europeans that the Black/Africans are inferior to the Arabs and Europeans. This chart is a living example of this truth we speak. "The R&D expenditures are so low it would not be a meaningful search for a comparable pattern of stratification." (Edoho) Not only is this true but there is not even a research and development that is created from the theories, ideology, philosophy, and notions of Black/African Studies. There is not a Black/African instrument that is fashioning the research and development expenditures.

Black/Africans must begin to look at what we are doing as a people. It is time that they start thinking as a people. It is time to start thinking about were they are going. It is time to acknowledge for us the information that is received, is a product of European studies. As academicians and Black scholars we must look at our productivity. Its time to place under the microscope our own creative genius. In order to be a true scientist one must be able to look at their evolution and say to themselves, "Who gets the credit for the work that has been done?" What have I contributed to the advancement of my people? Is the interdisciplinary science we use ours? Is this the magnitude of my knowledge?

Much has been contributed to the European Studies by Black/Africans. We must give thanks to these fields of knowledge for nurturing us as we mature into our realm of interdisciplinary thought. We must be honest with our selves these studies are not of our productive creative development. This is not our genius it belongs to the Europeans and Arabs. For the Black/African it is only a stop in a journey a past in time. Every man has to do for himself. This law applies to interdisciplinary studies as well. It is time that the Black/Africans pull his/her own weight.

We have the talent. We have the creativity. We have the knowledge. We have the ability. We have the gifts. The time has come to exercise that right. There is nothing standing in our way but us. It is time to believe in our ancestors and the creator. It is time to believe in ourselves. Black/Africans are authentic in our own way of thinking. The secret to our success in our history and culture lies in the knowledge of our ancestors. For the last 1000 years we have been writing in Arabic and in the European languages. It is time to write the languages of our culture.

Black/African people do not have to be dependant on the analysis of other cultures. One does not have to depend on those who have enslaved and colonialized them. It is right that we have educated ourselves about other cultures. We know more about other cultures than we know about our selves. Black/Africans must stop acting as though they do not know how to construct a science of their own.

Black/African scholarship can do the job that is necessary. It is time for Black/African scholars to stand in the world with all the other scientist and proclaim, acclaim, and acknowledge their culture as productive. The task of cultural research and development is at the hands of our talented tenth. It is said that a gifted child is a child who knows how to use their culture to the advantage of their people.

There must be an interdisciplinary science that will evolve in ways that will represent each an every ethnic group and extended cultures. It does not matter where that
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ethnicity is in Africa or in the Diaspora. Even if in our imagination there are Black/Africans on Mars. Blacology will be fashioned to meet the needs of all Black/Africans. Page 108 table for estimated expenditures proves there is a need for a R&D in Black/African Culture. This table solidifies and proves that the development of the Interdisciplinary Cultural Science of Blacology is a need whose time has come. As Black/Africans our toil in the vineyards of education can not only be to obtain employment. This cannot be the end all to our struggle. Every day in our existence we are growing and evolving. The wounds of our catastrophe have healed. We must carry on with the job of repairing our damages. In some things we must cut our loses.

Every study that has been done on Black/African Culture is saying the same thing. It is time for Black/Africans to do for themselves. We have been thinking like everyone else. We have been acting like every one else. We have been talking like every one else. What ever anyone told us to do, that is what we did. Now it is time to put all this together and do for us. Even though we did all of that we still did not solve our problems. None of those theories were able to bring about some solutions to our problems. This is not a put down of those who help us and were sensitive to our struggle, only to take on our responsibility in our growth and development.

All the elements that is needed to conduct our own R&D is in our hands. The ancestors have supplied us with more than enough research information to study. It is time for Black/African People to do some thinking and talking of our own. The time has come to be creative to back up our thoughts.

Blacologically speaking, in reading "Globalization and the New World Order: Promises, Problems, and Prospects for Africa in the Twenty-first Century by Felix Moses Edoho I was very impressed with some of what he was saying. Edoho seemed to agree with my philosophy in R&D. It is time for Black/Africans to do for them selves. It is always better for a Black/African to here form other Blacks. It is very inspiring to know what Black/Africans on the continent of Africa are saying about the struggle for growth and development. It is very educating to know how and what their views are in post colonial Africa.

(On page 108) This is a Blacological perspective of the problems facing Black/Africa. Of course the writers talk about Africa as a whole. But primarily he was talking about Black/Africa. Blacological Thought is prevalent in all BlacPeople. It is utilized when there are issue concerning the advancement and disadvantage for Black/African Culture and its people. When Black people are dealing with their place in the World. How they are perceived by other races. When ever you are talking about Black people. You are utilizing Blacological Thought. When a Black person use the word Black he/she are then utilizing Blacological Thought. Black/Africans can not go the whole day or 24 hours without saying what Black people ought to do in someway shape form or fashion.

This is something that has been said over and over again. We must do away with dependency. We must develop our own. Black/Africa must work on its infrastructure. The Black/African community must be built up. Black/African Countries must work their lands. Black/Africa must educate its self with its own cultural knowledge. If Black/Africa continues to go in the way of the past we will continue to be exploited.

(Page 111 Multilateral approach) Article 9 of the Charter of Economic Rights and Duties of in General Assembly Resolution 3281 (XXIX) of December 1974 declared: , All States have the responsibility to co-operate in the . . . scientific and technological
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fields for the promotion of economic and social progress throughout the world, especially that of the developing countries." This law aids in the development of Blacology as a R&D study. It provides opportunities for funding of R&D in all countries in developing Africa. This law gives Black/Africans the right to develop their cultures without reprisal. With this law Black/African culture can seek the R&D that is necessary for scientific study of the evolution of Black/African people and their culture. Here we have a law that will aide in the research of the Interdisciplinary Cultural Science.

(Page 112 Multilateral) In class discussion I was asked, What would you do to make things better in Africa and what type of programs would you suggest. My reply is to conduct R&D on an interdisciplinary science and reeducate Black/Africa on their culture. Without a cultural foundation in education the economic, religious, and political foundation will remain on shaky grounds. On page 112 paragraph 1 research has revealed there is support for my philosophy. Article 13 of the charter also provides that "Every State has the right to benefit from the advances and developments in science and technology for the acceleration of its economic and social development". This is also support for R&D in the Developing Countries for the opportunity to develop Blacology. Blacologically speaking, it is time to look at what we are doing and where we are going. We must be concern about how are going to do it. There is no time to waist. This law has been into affect since 1974. There is no reason for us to continue to wait and use the ideas of others.

Technology is there. Black/Africans have in their very souls the knowledge and gifts of technology. This is untapped resources that are just waiting to be used. We have yet to find the answer to the pyramids. In the destruction of the Black Civilization the knowledge was lost. We were disconnected from that knowledge and spirituality. With the scientific research and study of the Cultural Science of Blacology. We will provide the information and knowledge that will bring the advancement and science development for Black/African people to their conscious.

Here is still another way in which there is support for the development of Blacology. As Black/Africans we must not be afraid of anything that would seem to get in the way of our progress. To develop an Interdisciplinary science is not something that is going to make Europeans mad. What are we afraid of? In UNESCO there are resources to conduct the R&D that is necessary. There are international institutions that are available for S&T that we have not utilized. It is time to Promote Black/African Scholarship in its own interdisciplinary science.

(Page 112: OAU & Lagos Plan) The key word here is autonomy to be independent, as of another government; self- governing. The key to autonomy is the use of technocommunication. Black/African Leader and governments can be educated through technology how autonomy can help to develop their countries. Blacologically, this is what all modern nations have do to build themselves into self- reliance. It has been said that technology is so great today it would not allow for growing countries to be monolithic. It is a different world today than it was 10 - 30 years ago. It has also been said, that Black/African countries would not be allow to be autonomous. Based on the advancement of technology and communication of information. Blacologically, this is a two headed coin if technology is as advance as we think than it can also be used to motivate developing Black/African countries to achieve its own self-government. As
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Black/Africans it's time do away with the phobias of the past. As time goes on each race of people grows naturally and adapts to the times.

Once you take a look at technology and communication the more you feed the mind the more develop the individual becomes and wants to know. It becomes a point of organizing the information according to your advancement. One would not stop the growth and development of Black/African countries receiving communication information. The appropriate step to take would be to utilize the information as an asset in the growing consciousness of Black/Africa. The information received over television, Internet, radio, and cable would be used to educate to the population. This would also be an excellent way to promote Blacology to Black/Africa. In doing so this would help to advertise and recruit those Black/Africans who would be interested Black/African Interdisciplinary Studies both heads of states and countryman, man and woman. Blacology is a science of communication and technology.

By seeing what other cultures have will help to educate Black/African people. This will bring to their conscious those who can speak the European languages. Once Black/Africans observe the development of Europeans, Oriental, and other countries they will be able to translate this information to their understanding. This will encourage the writing of Black/African languages. The traditional languages of Black/Africa must be written out so that each individual ethnic group can see what he or she is saying. This would be a task taken on by Black/African scholarship. Black/Africans must be able to read their language. This should be a major concern of technological development of all of Black/Africa. This will lift up the culture of Black/Africans so they can see their culture is real. Black/Africans must see their culture as something worth obtaining and something of value. Through the advent of technological-communication and Blacology this can be a sustainable accomplishment. Once educated in a sustainable cultural science than Black/Africans can began to eliminate the barriers of marginalization. The instruments are here. The desire is there also. What has to done is to provide funding to conduct the R&D that is necessary for a sustainable Black/African Education System.

With Blacology Black/Africans can organized and structure in a way that is beneficial from a monolithic and autonomous perspective. This is needed so that each ethnic group can know their own value. Without this type of education and preparation Black/African Culture can not developed global recognition. The Black/African Culture is an extended culture that reaches to all four corners of the earth. Through the regional approach these goals can be accomplished.

**(Page 116 Techno-Globalism)** Blacologically speaking, what Black/African Leadership in Africa is going to have to do is charge the international corporation and the foreign countries for the finance to build institutions. These countries and corporation can pay for their export. Africa needs monetary support for the organizing and structuring of the raw materials for export. Those individual countries the G7's and G5's have a surplus of economic wealth they make their on money. There is no reason why they can not compensate developing countries of Africa for the services render. African developing countries are going have to charge those wealthy institutions for the training to operate the factories and mines that are digging up oil and other mineral for their profit. Black/Africa must have the knowledge to construct Small Business' and Big Business'. Black/Africa has to have the industries, chemicals, and the auto mechanic engineering plants. If the World Bank and the IMF are honest about international technology and
transforming Africa in this new world order than this is the task that must done. Black/Africa is going to have to do business as well as provide labor.

African countries are going to have to be in the business of making business. Black/Africa must become technologically astute, educated and prepare to be independent operator of their future. It does not make any sense that Black/Africa has to by automobiles when they have all the raw materials inland to build its own vehicles and airplanes. Black/African Leadership is going to have to start thinking about charging what ever the price to build these facilities. This is why Africa has remained dependant in post colonial times and in the 21st Century.

(Page 118 Policy Framework for Transforming Africa) This is a two-sided coin on one side Black/Africa may not move along with the rest of the world. On the other side Africa can take its own time and work on its own bases. This observation should be considered by head of state in the process of developing Africa's technological future. This a primary concern when it come s to growth and development. Each country is like an individual some grow faster than others are. Africa may need to let the world move on and build at its on pace. At the same time be aware of the ways of the world. Some times people want to grow up to soon and this cause for them great tragedies maybe even death. Some times people try to find and easy way to accomplish a goal. But there is no easy way and there are no short cuts. Black/Africa is going to have to practice patients in this area of growth and redevelopment.

Providing labor is a short cut to success experience has taught us this. Now it is time to take the lessons we have learn and build from scratch. It is time build the infrastructure that is needed to sustain our development. Black/Africa must deal with the problems of identity, cultural development, and building bridges to its extended cultures in the Diaspora. Black/Africa must realize the resources it has out side of Africa and on the continent.

Black/Africa must think of utilizing the institutions that are already in place and create new ones to gather its global resources. Black/Africa must acknowledge that it has it own time span and develop accordingly. Africa is a different environment than Europe and Asia. Black/Africa must look at it self in its on time span. It is not that Black/Africans are inferior. It is that Black/Africa has its own struggle and story. Black/Africa has it own culture. It can not allow others to judge them based on their standards. No one can interpret the pace that Black/Africa should be on. When you take look at people and how they walk. Some people walk very fast. Some walk very slow. The point is that we may not all get there at the same time, but we will get there. On page 118 there is a lite of hope for Black/Africa. Because, if the European leave us than we can begin to concentrate on those things that will help to better our selves.

Blacologically speaking, African countries are considered 3rd World and undeveloped. These are just code words for saying Blacks are inferior. But on the other hand, when you take a look at the World Bank and the contributions it give to the G5 and G7. One would think that Africa being inferior and not having the ability to develop them selves. Not having the intellectual prowess and creative genius to create its own financial market development. If this white supremacy theory was right than it would only be strategic to give the money to Africa. Because, they would get it back with out manipulation and trickery. The advanced industrialized countries would not be at a lose. The advanced industrialized countries do not see Black/Africa as inferior. If the theory
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of inferiority were true indeed than Africa should receive the entire aide it needs to develop its self. But the west do not believe in this none sense nor is it true.

The G7 and G5 are not going to supply Africa with the finance, training and education to become a world power. Black/Africans can stop dreaming and depending on the stupidity of white supremacy or any European ideology to advance their technology. It is up to the mind power of the Africans themselves. The Europeans feel and know that the Black/African mind is equal in every way. Once given to chance and opportunity the Africans can become a formidable developer in the 21\textsuperscript{st} Century.

Dependency is the goal of the advance industrialized countries for Black/Africa. Only give just enough to keep Africa coming back but not enough to make it independent. Only teach just enough to do the labor. Continue to withdraw the resources and never to educate or train for maximum results. When we take a look at Africa and talk about implementing strategies from IMF and World Bank. The sociological studies that have been done on Africa throughout the West and the European Societies. When we think about Africa and initiating programs based on the European model this is not a realistic view.

Black/Africa must think about developing Africa from the beginning. Going back to basics building from scratch. Building Africa as though you would build one person at a time. The development of Africa must be from the indigenous people and their extended cultures. It may seem far fetch and extreme to talk about building as all countries have begun. That may be more realistic for some of the international theories that have been utilized by Europeans in the past 230 -440 years.

Africa is a continent not a country. It is made up of many cultures. Each culture needs to be developed. Each culture needs sustainable development. Each culture must have its own means of collective bargaining. When you take a look at the United States you must look at how it was developed. The research has revealed that there are two types of means, legitimate and illegitimate means. In building a country one must utilize both these means to have a sustainable develop country. When you take a look at European colonialism wherever they went, they occupied the land by force. Set up a means for collective bargaining and brutal mind control. Now that they are stable they are more covert in their endeavors. As once stated before, this is not an example of how to develop Africa. Black/Africa must be must humane and educated in the development of technological growth process. Black/Africans must utilize the knowledge and the wisdom of their scholars and ancestors. Black/Africans must be as wise as the serpent and as harmless as a dove.

IX. DEFINITIONS:

According to the research of Blacology Afro means as follows:

0. Afro- means one who is of the Black race; and of African origin, referring to the hair of one who is Black or African. Afro is an type of hair or texture of hair. In the 1970's Black wore their long and this was considered an afro or a fro. One may also distinguish the African of Blackness of an individual by ones hair.
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1. Autonomy - to be independent, as of another government; self-governing.

2. Blacology - refers to the scientific research and study of the evolution of Black/African People and their culture from the past and present which includes video, audio, written, and oral documents. The perpetuation and utilization of Black/African ideas, philosophies, theories, beliefs, concepts, notions of the past and present as cultural knowledge. The acclamation, affirmation and proclamation of Black/African Scholarship as an Interdisciplinary Cultural Science.

3. Blacologically Speaking - To speak from a perspective that is operatively Black, that is of, from, by, for and about Black/African people and their culture; developed by Black people.

According to Webster's II New Riverside Dictionary pragmatic means the following:

4. Pragmatic (prag.mat'ik) also prag-mat-i-cal adj. 1. Concerned with practice rather than theory: practical. 2. Of or pertaining to theory or methods of pragmatism. - prag-mat'i-cal-ly adv.

5. Prag-ma-tism (prag' me-tiz'em) n. 1. The theory that actions and beliefs must be judged by their practical results. 2. The use of practical means to solve problems. - prag'ma-tist n.

6. Black Cultural approach - To approach an ideal or program from the perspective of Black culture and experience.

7. Black Cultural Knowledge - The information provided by the heritage and traditions of Black People both oral and written for the perpetuation and utilization for advancement and survival.

8. Blacks - the dark race, the native people of Africa, the people from the land of the Gods, the people of the first civilization, the descendants of African Slave trade, the people of Ancient Egyptian, Ethiopia, Carthage, and the Descendant of Ancient Black Civilization.

9. Blacological - the logic of Black/Africans, from the experience, the struggle, logic that is based on the chronology and evolution of their thinking, logic that is of, from, by, for, and about the survival and advancement of Black people past and present both oral and written.

10. Black/Africans - an evolitional identity in the chronology of Black people, a specific way to identify the descendent or the original people of Africa, the dark skin people.

11. Black/African Culture - Black represents a time without cultural consciousness only color consciousness. African represents the acknowledgement of kinship,
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locality and cultural connection and consciousness Chronological evoluational acknowledgement of your ethnical orientation, and cultural development. (spiritual substance and ethnicity)

12. Blacological Method - A Method of determining and analyzing data and information, developed by Black scholars and scientists used by the different extended cultures or as a means of survival or to accomplish a goal.

13. Cultural development - The process of evolving in spiritual solidarity in both individual and collective, toward cultural perfection.

14. Deculturation - the destruction of one's culture by the oppression of slavery, religious imperialism, white supremacy racism, cultural deprivation, and genocide for any reason capitalism, exploitation, and communism etc. This is Man's inhumanity to Man. The dehumanization of one culture by another for the purpose of subjugation for labor.

15. Ebonics - as an African language, and how does it present itself in the African American's behavior and culture? Axiology refers to the good and the beautiful as well as to the combination that gives us right conduct within the context of African culture. This is a value issue.1 Dr. Robert Williams Black Psychologist coined the term Ebonics in 1973 independent of American Psychology Association. This information is received from WOL Radio 1450AM ON 07-31-97 AT 10:00AM on the Eric St. James Show in Washington DC.

16. Mis Educated - To be taught the whites are better than blacks, black are inferior to white, white are superior to black, if you are white you rights, if you are brown stick around, if you yellow you mellow, if you are Black get back. Blacks are not intelligent, whites are intelligent; everything good is white, everything bad, is black; white school are better than black schools.

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