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GENDER, SKILL AND POWER: AFRICA IN SEARCH OF TRANSFORMATION

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As Africa approaches the third millennium of the Christian era, three major transformations are needed and to some extent, have begun to unfold. First, there is the societal revolution in relations between the sexes; secondly, there is the need for a revolution in technology and skill all over the continent; and thirdly, there is the need for transforming Africa's power relations within the global system.

These three revolutions of gender, skill, and power are intimately intertwined. The history of Africa since 1935 is, to a large extent, a preparation for these three revolutions.

A fundamental change in relations between the genders has been occurring partly because of Africa's interaction with other cultures in this period. Islam and Western colonialism came with alternative paradigms of relationships between the sexes. Both the family and African society at large are caught up in these tensions of culture change. It is this question of gender in African society since 1935 that we address first.

Gender Roles in Transition

Africa since 1935 has witnessed significant changes in the role and status of women in Africa. In many traditional cultures there has been a belief that God made woman the custodian of fire, water and earth. God himself took charge of the fourth element of the universe—the omnipresent air.

Custody of fire entailed responsibility for making energy available. And the greatest source of energy in rural Africa is firewood. The African woman became disproportionately responsible for finding and carrying huge bundles of firewood.

Custody of water involved water as a symbol of both survival and cleanliness. The African woman became responsible for ensuring that this critical substance was available for the family. She has trekked long distances to fetch water.

The custody of earth has been part of a doctrine of dual fertility. Woman ensures the survival of this generation by maintaining a central role in cultivation—and preserving the fertility of the soil. Woman ensures the arrival of the next generation by her role as mother—the fertility of the womb. Dual fertility becomes an aspect of the triple custodial role of African womanhood.¹

What has happened to this doctrine of triple custody in the period since 1935? Different elements of the colonial experience affected the role of the African woman in different ways.

Among the factors which increased the woman's role on the land was wage labour for the men. Faced with an African population reluctant to work for low wages for somebody else, colonial rulers had already experimented with both forced labour and taxation as a way of inducing Africans to join the colonial work force.

According to Margaret Leach Bay, wage labour took some time before it began to affect women's role on the land. Her own work was among Luo women in Kenya.

By 1930 a large number of men had left Kowe at least once for outside employment... More than half of this group stayed away for periods of fifteen years or more.... This growing export of labour from the province might be thought to have increased the burden of agricultural work for women.... As early as 1910, administrators lamented the fact that Nyanza was becoming the labour pool of the entire colony.... Yet the short-term migrants of the 1920's were usually unmarried youths, who played a relatively minor role in the local economy beyond

occasional herding and the conquest of cattle in war. Furthermore, the short-term labour migrants could and often did arrange to be away during the slack periods of the agricultural cycle.... Thus labour migration in the period before 1930 actually removed little labour from the local economy and did not significantly alter the sexual division of labour.²

But Margaret Ray goes on to demonstrate how the Great Depression and the Second World War changed the situation as migrant labour and conscription of males took away a bigger and bigger proportion of men away from the land. This was compounded by the growth of mining industries like the gold mining at Kowe from 1934 onwards:

The long-term absence of men had an impact on the sexual division of labour, with women and children assuming a greater share of agricultural work than ever before.... The thirties represent a transition with regard to the sexual division of labour, and it was clearly the women who bore the burden of the transition in rural areas.³

Women in this period, from the 1930s onwards, became more deeply involved as "custodians of earth." In southern Africa the migrations to the mines became even more dramatic. By the 1950s a remarkable bifurcation was taking place in some Southern African societies--a division between a male proletariat (industrial working class) and a female peasantry. South Africa's regulations against families joining their husbands on the mines exacerbated this tendency towards gender-apartheid, the segregation of the sexes. Many women in the front line states had to fulfill their triple custodial role of fire, water, and earth in greater isolation than ever.

The wars of liberation in Southern Africa from the 1960s took their own toll on family stability and traditional sexual division of labour. Some of the fighters did have their wives with them. Indeed, liberation armies like ZANLA and ZIPRA in Zimbabwe and FRELIMO in Mozambique included a few female

fighters. But on the whole, the impact of the wars was disruptive of family life and of the traditional sexual division of labour.

After independence there were counter-revolutionary wars among some of the front line states. The most artificial of the post-colonial wars was that of Mozambique initiated by the so-called Mozambique National Resistance (MNR or RENAMO). The movement was originally created by reactionary white Rhodesians to punish Samora Machel for his support for Robert Mugabe's forces in Zimbabwe. After Zimbabwe's independence the Mozambique National Resistance became a surrogate army for reactionary whites in the Republic of South Africa--committing a variety of acts of sabotage against the fragile post-colonial economy of Mozambique.

Again, there have been implications for relations between the genders. In addition to the usual disruptive consequences of war for the family, the MNR, by the mid-1980s, had inflicted enough damage on the infrastructure in Mozambique that many migrant workers never got home to their families in between their contracts with the South African mines. The miners often remained on the border between South Africa and Mozambique, waiting for their next opportunity to the mines without ever having found the transportation to get to their families in distant villages of Mozambique.

It is not completely clear how this situation has affected the doctrine of "dual fertility" in relation to the role of the African woman. One possibility is that the extra long absences of the husbands have reduced fertility rates in some communities in Mozambique. The other scenario is that the pattern of migrant labour in Southern Africa generally has initiated a tendency towards de facto polyandry. The woman who is left behind acquires over time a de facto extra husband. The two husbands take their turn over

time with the woman. The migrant labourer from the mines has conjugal priority between mining contracts if he does manage to get to the village. He also has prior claim to the new babies unless agreed otherwise.⁴

If the more widespread pattern is that of declining fertility as a result of extra long absences of husbands, the principle of "dual fertility" has reduced the social functions of the fertility of the womb and increased the woman's involvement in matters pertaining to the fertility of the soil.

On the other hand, if the more significant tendency in mining communities in Southern Africa is towards de facto polyandry, a whole new nexus of social relationships may be in the making in Southern Africa.⁵

Other changes in Africa during this period which affected relationships between men and women included the impact of new technologies on gender roles. Cultivation with the hoe still left the African woman centrally involved in agriculture. But cultivation with the tractor was often a prescription for male dominance.

When you see a farmer
On bended knee
Tilling land
For the family
The chances are
It is a she!

* * *

When you see tractor
Passing by
And the driver
Waves you "Hi"
The chances are
It is a he!

Mechanization of agriculture in Africa has tended to marginalize women. Their role as "custodians of earth" is threatened by male prerogatives in new and more advanced technologies. It is true that greater male involvement in

agriculture could help reduce the heavy burdens of work undertaken by women on the land. On the other hand, there is no reason why this relief in workload for women should not come through better technology. Tractors were not invented to be driven solely by men.

Another threat to the central role of the African woman in the economy in this period has come from the nature of Western education. It is true that the Westernized African woman is usually more mobile and with more freedom for her own interests than is her more traditional sister. But a transition from custodian of fire, water, and earth to keeper of the typewriter is definitely a form of marginalization for African womanhood. Typing is less fundamental for survival than cultivation. Filing is less basic to the human condition than water and energy. The Westernized African woman in the second half of the twentieth century has tended to be more free but less important for African economies than the traditional woman in rural areas.

The third threat to the role of the African woman in this period came with the internationalization of African economies. When economic activity in Africa was more localized women had a decisive role in local markets and as traders. But the colonial and post-colonial tendencies towards enlargement of economic scale have increasingly pushed the woman to the side in international decision-making. It is true that Nigerian women especially have refused to be completely marginalized even in international trade. But on the whole, the Africans who deal with international markets and sit on the Boards of transnational corporations are overwhelmingly men. And at meetings of the Organization of Petroleum Exporting Countries (OPEC)—where Muslims predominate—there are additional inhibitions about having even Nigeria represented by a female delegate.

But what is the future avenue which is likely to change the balance between men and women in public life in Africa. The reasons why women are politically subordinate are not to be sought in economic differentiation. Women in Africa are economically very active; women in Saudi Arabia are economically neutralized. And yet in both types of society women are politically subordinate. And so economic differences are not the real explanation of political subjection of womanhood.

What is indeed universal is not the economic role of women but their military role. All over Africa (and indeed all over the world) women are militarily marginalized. What will one day change the political balance between men and women is when the military machine becomes bisexual. The Somali army has started recruiting women. The Algerian air force has started recruiting women pilots. Both Muslim societies in Africa are beginning to give a military role to women. But the future needs more than tokenism in gender roles. In this continent of coups we may have to wait for the day when the announcement of a coup in West Africa declares as follows: "Brigadier-General Janet Adabiyi has captured power in a military takeover in Lagos."

But technology is not only linked to the relationship between men and women in Africa; it is also linked to the wider configuration of power in the world.

The period since 1945 has witnessed the emergence of a world divided between an increasingly prosperous northern hemisphere and a persistently disadvantaged southern hemisphere. The concept of "the Third World" was, of course, born in this period of history--as the North was split between east and west in ideological systems and the world between north and south in both skill and income. In the global context Africa, in this period of history,

has had to look at itself partly in terms of this North-South divide. The continent's global allies have increasingly become the rest of the Third World.

Towards Dual Solidarity

Two forms of solidarity are critical for Africa and the Third World if the global system is to change in favour of the disadvantaged.

Organic Solidarity concerns South-South linkages designed to increase mutual dependence between and among African or Third World countries themselves. Strategic Solidarity concerns cooperation among Third World countries in their struggle to extract concessions from the industrialized Northern world. Organic solidarity concerns the aspiration to promote greater integration between Third World economies. Strategic solidarity aspires to decrease the South's dependent integration into Northern economies. The focus of organic solidarity is primarily a South-South economic marriage. The focus of strategic solidarity is either a North-South divorce, a new marriage settlement or a new social contract between North and South. The terms of the North-South bond have to be re-negotiated.

We start also from the additional basic observation that economic flows are in any case far deeper between North and South than between South and South. On the whole, Southerners do far greater trade with the North than with each other, and have more extensive relations of production with industrialized states than with fellow developing countries. But those economic relations between North and South are distorted by a tradition of dependency involving unequal partnership. The structural links give undue advantage and leverage to the North--and leave the South vulnerable and exploitable.

What then is the way out? How can these two forms of solidarity help to ameliorate the Third World's predicament of dependency and its persistent economic vulnerability?

One of the more neglected areas of cooperation is manpower and manpower training. A start has been made in manpower exchange between some Third World countries and in the field of manpower training across Third World boundaries. But the importance of this area has been grossly underestimated.

It is not often realized that the most obstinate line of demarcation between North and South is not income (criteria of wealth) but technology (criteria of skill). The entire international system of stratification has come to be based not on "who owns what" but on "who knows what." Libya and Saudi Arabia may have a higher per capita income than some of the members of the European Economic Community, but Libya and Saudi Arabia are well below Western Europe in skills of production and economic organization. Indeed, members of OPEC do not even have adequate skills to control or drill their own oil.

Nowhere is this demonstrated more clearly than in Southern Africa and the Middle East. Less than five million whites in South Africa have been able to hold to ransom a black population in the region ten times their own. They have held neighbouring Blacks to ransom both economically and militarily. The main explanation is not simply because South Africa is rich, but because that wealth has been extracted through African labour and European expertise. South Africa's neighbours have African labour too. Some of them are also rich in minerals. What the Blacks have lacked indigenously is the superior technology of production and the accompanying culture of efficient organization.

The Middle East is a clearer and more staggering illustration of the power of skill over income. At least since the 1970s, much of the Arab world has become significantly richer than Israel in sheer income. Indeed, the Israeli economy would have suffered complete collapse but for the infusion of billions of dollars from the United States and from World Jewry. And yet, in spite of being out-numbered and out-wealthed, the Israelis have retained the upper hand militarily against the Arabs. The supremacy of skill over income and numbers has been dramatically illustrated in one Middle East war after another.

In both South Africa and Israel the cultural variable is critical. Had Israel consisted entirely of Middle Eastern Jews, the Arabs would have won every war. Indeed, it would not have been necessary to have more than the 1948 war. After all, Middle Eastern Jews are not very different from their Arab neighbours in culture and skill. In a war against fellow Middle Easterners, the numerical preponderance of the Arabs would have triumphed against Jews long before the numerical advantage was reinforced by Arab petro-wealth.

What has made the Israelis militarily pre-eminent is not the Jewishness of eighty per cent of the total population, but the Europeanness of less than half of that Jewish sector. It is the European and Western Jews who have provided the technological foundations of Israel's regional hegemony.

If then the ultimate basis of international stratification is indeed skill rather than income, what is Africa to do in order to ameliorate the consequences of its technological underdevelopment?

The more obvious answer is for Africa to obtain the know-how from the Northern hemisphere as rapidly as possible. But there are difficulties.

Countries of the Northern hemisphere are often all too eager to transfer certain forms of technology, especially through transnational corporations, but the South's need for certain technological transfers only helps to deepen relationships of dependency between the two hemispheres.

On the other hand, there are other areas of technology which the North is not at all keen to transfer. Pre-eminent among the taboos is the transfer of certain branches of nuclear physics and technology. The computer is part of the phenomenon of dependency through technology transfer; the nuclear plant or reactor is a symbol of dependency through technological monopoly by the North. The transnational corporations are often instruments of Northern penetration of the South through technological transfer; nuclear power, on the other hand, is a symbol of Northern hegemony through technological monopoly.

The dual strategy for Africa and the Third World is both to learn from the North and to share expertise among each other. Those aspects of technology which are being freely transferred by the North should be "decolonized" and stripped of their dependency implications as fast as possible. Those aspects of technology which are deliberately monopolized by the North should be subjected to Southern industrial espionage in a bid to break the monopoly. Pakistani scientists have been on the right track in their reported efforts to subject northern nuclear monopoly to Southern industrial spying. If Pakistan becomes Islam's first nuclear power and decides to share the nuclear secrets with a few select fellow Muslims like Egyptians or Libyans, that trend would be in the direction of enhanced technological cooperation among Third World countries.

That is one reason why the brain drain from the South is not an unmitigated disaster. What would be a catastrophe is a complete stoppage of

the brain drain. It is vital that the South should counter-penetrate the citadels of technological and economic power. The counter-penetration can take the form of African engineers, teachers and professors, medical doctors and consultants, businessmen and scientists, working in the North. The North needs to be more sensitized to Southern needs not only by the speeches of Southern statesmen and ambassadors, but also by the influence and leverage of Southerners resident in the North.

In any case, there is no law of gravity which says expertise can only flow from the North to the South. There is no gravitational logic which says that European teachers teaching African children is natural--but African teachers teaching European children is not. The structure of scientific stratification in the world should rapidly cease to be a rigid caste system--and allow for social mobility in both directions. Of course, too big a brain drain from the South northwards could deeply hurt the South--but the trouble with the present level of the brain is not that it is too great, but that it is grossly under-utilized by the South itself. Professor Edward S. Ayensu, a Ghanaian Research Director at the Smithsonian Institution in Washington, D.C., has argued that there is large potential pool of Third World experts, resident in the Northern hemisphere, who would be only too glad to serve for a year or two in developing societies if only their services were solicited. What is more, the Northern institutions where they work would, according to Professor Ayensu, be sympathetically inclined towards facilitating such exchanges from time to time if so requested by Third World authorities.⁶

If that were to happen, it would be a case of tapping the brain drain on the basis of a triangular formula. The flow of expertise would be firstly

from South to North, then North to South, and then South to South—often involving the same Southern experts or their equivalents, sharing their know-how across hemispheres.

This sharing of Southern experts by both North and South would be a more realistic formula than the tax on the brain drain which Professor Jagdish Bhagwati of the Massachusetts Institute of Technology (MIT) has often recommended as a method of compensation by the North towards the South for manpower transfer. Unfortunately, while the North may indeed be willing to share with the South some of its newly acquired Southern experts, the South itself has shown more enthusiasm for borrowing "pure" Northern experts than for borrowing Southern experts residing in the North. The psychological dependency of the South is less likely to be impressed by an Indian or Nigerian expert coming from the United States than by an American expert with far less understanding of the Third World. The American is regarded as "the real thing" in expertise—while the Indian statistician or Nigerian engineer is deemed to be a mere Southern "carbon copy."

Fortunately, all is not bleak. There is some movement of expertise between Third World countries. Dr. Boutros Boutros-Ghali, Egypt's Minister of State for Foreign Affairs, assured me in an interview in Cairo in 1983 that Egypt had "two million experts" working in other countries, mainly in Africa and the Middle East. South Asia also exports a considerable body of expertise to other parts of the Third World.

Some of the traffic in expertise across Third World frontiers is caused by political instability and economic problems at home. Qualified Ugandans and Ethiopians are scattered in almost all the four corners of the Third

World, as well as in the North. So are qualified Ghanaians, Southern Africans, Nigerians, and others.

Then there is the inter-Third World traffic of experts caused by the magnetism of petro-wealth. The Gulf states have a particularly impressive variety of human power from different lands. Two Ghanaian scholars visited the University of Petroleum and Minerals in Dhahran in the Kingdom of Saudi Arabia in the summer of 1984. They were impressed by the Ghanaian presence in the research complex of the University. They were also surprised to learn about "24 highly qualified Ghanaian medical officers working in and around this University town of Dhahran."⁷

To summarize, there is a push factor in some of the less fortunate Third World countries which forces out many native experts in search of alternative opportunities in other countries. But there is also a pull factor in the wealthier Third World societies which magnetically attracts workers and specialists from other lands. Together the two forces are helping to lay down some of the foundations of organic solidarity within the Third World in the field of know-how.

What is lacking is an adequate linkage between organic and strategic solidarity in this field of evolving Third World expertise. A systematic programme which would enable Africa to borrow some of the Southern experts now residing in the North could become an important stage in the evolution of a merger between organic and strategic solidarity.

Behind it all is the realization that the ultimate foundations of international stratification are not income differences, military gadgets, or demographic variations. Ultimate power resides neither in the barrel of the gun nor in the barrel of oil--but in the technology which can produce and

utilize both efficiently. A New International Economic Order would be void without a New International Technological Order. Africa needs strategies of solidarity to realize both.

Four Forms of Power

But although the power of skill is at the moment overwhelmingly in the hands of the North, there are other areas of power which the South possesses but which the South has under-utilized.

OPEC is an illustration of producer power. From 1973 to 1983 OPEC grossly under-utilized its leverage. Instead of using that golden decade to put pressure on the North for fundamental adjustments in the patterns and rules of the world economy, OPEC concentrated almost exclusively on the prices game, a game of short-term maximization of returns.

There is a crying need for other "producer cartels," no matter how weak in the short run. Cobalt has more promise as a mineral of leverage than copper, and would involve fewer countries. Experimentation in a cobalt cartel could pay off if Zaire asserted herself a little more decisively as an independent power. After all, Zaire has the credentials of being the Saudi Arabia of cobalt when the market improves in the years ahead.

The Third World has also under-utilized its consumer power, regionally specific and patchy as it is. The Middle East and African countries like Nigeria are especially important as consumers of Western civil and military hardware, technology and household products. Occasionally Nigeria or individual Middle East countries flex their muscles and threaten to cancel trade contracts or to refuse to renew them. But such muscles are flexed usually for relatively minor issues—like protesting against the television

film Death of a Princess or when an Arab or African delegation is snubbed by a Western power. The consumer power of Africa and the Middle East could be used as leverage for more fundamental changes in the exchange patterns between North and South.

The fourth form of power currently under-utilized by the South is debtor power. President Julius Nyerere of Tanzania, upon being elected Chairman of the Organization of African Unity in November 1984, identified development, debt, and drought as the three leading concerns of the current African condition. Of course, African debts are modest as compared with those of Latin America, but Nyerere identified debt as a source of power and not merely as a source of weakness. At the first press conference after his election Nyerere, lamented that the Third World was not utilizing the threat of defaulting more efficiently to induce Western banks to make more fundamental concessions to the indebted.⁸

It is indeed true that if I owe my local bank a few thousand dollars, I am vulnerable—but if I owe the bank millions of dollars the bank is vulnerable. Tanzania still owes so little that the country is still very vulnerable. But Nyerere virtually declared that if he owed as much as some of the leading African debtor countries owed, he would simply refuse to pay. (Africa's leading debtor nations include Nigeria, Egypt and Zaire. South of the Sahara, Africa's debt by 1986 was over 90 billion dollars.)

In reality Tanzania would still be vulnerable unless there was substantial strategic solidarity among both African and Latin American countries. The utilization of debtor power requires considerable consensus among the indebted. The Western Banks have evolved a kind of organic solidarity of their own as well as mechanisms of almost continual

consultation. The creditors of the North are united--but the debtors of the South are in disarray. Africa and Latin America need to explore the possibility of creating a strategic solidarity of the dispossessed and the indebted--to help induce the Shylocks of the North to make concessions on such issues as rates of interest, schedule of payment, methods of payment, and the conditions for a moratorium or even total debt relief where needed.

Fundamental as all these areas of strategic solidarity are, they are no substitute for organic solidarity in terms of greater trade, investment, and other interactions among Third World countries themselves. Here, the Less Developed Countries (LDCs) are caught up in one of several contradictions. In their relations with the North, the LDCs need to diversify their economies. But in their relations with each other, the LDCs need to specialize in order to increase mutual complementarity. Uganda could revive its cotton industry and sell the fibre to Kenya to process into a textile industry. This specialization would help the two countries develop in the direction of complementary specialization. But the imperatives of Uganda's relations with the world economy as a whole dictate diversification of Uganda's industry rather than specialization. This is an acute dilemma which Third World countries need to resolve as a matter of urgency. They need to find a suitable balance between diversification for North-South relations and specialization in South-South trade.

Related to this is the imperative of finding alternative methods of payment in South-South trade. The principle of using Northern currencies for South-South trade has been very stressful. The bogey of "foreign exchange" has bedeviled Southern economies. Tanzania, Zambia, and Zimbabwe have been exploring possibilities of reviving barter as a basis of at least some aspect

of their economic relations. Nigeria, in the 1980s, has experimented with "counter-trade"—exchanging her oil for manufactured goods. The new detente between Kenya and Tanzania also envisages areas of barter trade between the two countries in the years ahead. And if Uganda's cotton did feed Kenya's textile industry more systematically in the future, it would not be unrealistic for Kenya to pay back Uganda in shirts and processed military uniforms, rather than in hard foreign exchange.

Another area of organic solidarity among Third World countries concerns the issue of sharing energy. There have been years when Kenya has needed to get a third of its electricity from the dam at Jinja in Uganda. Uganda is still a major supplier of power to Kenya.

The Akosombo Dam on the Volta River in Ghana was also designed to be a major regional supplier of electricity in West Africa. Unfortunately the level of water has been so low that far from supplying power to neighbours, Ghana has periodically had to ration power domestically. Ghana has sometimes needed electrical cooperation from the Ivory Coast. Southern African dams like Kariba have had more successful regional roles. They all symbolize a kind of pan-Africanism of energy, organic solidarity through interlocking structures of hydro-electric power.

An integrated European steel complex once served as midwife to the birth of the European Economic Community (EEC). Indeed, the integrated steel industry was envisioned as an insurance against any future fratricidal war in Europe. If European steel production was interlocked, industrial interdependence was at hand—and separate military aggression in the future would therefore be less likely.

In the same spirit, interlocking electrical systems between Third World countries should deepen mutual dependence--and create incentives for cooperation in other areas.

The struggle for a more integrated Africa has encountered many setbacks--from the collapse of the East African Community of Kenya, Uganda and Tanzania to the substantial drying up of the Akosombo Dam.

An experiment worthy of Africa's attention and study is South East Asia. The struggle for a more integrated South East Asia is more of a success story--as the Association of South East Asian Nations (ASEAN) has emerged as a major economic and diplomatic force in the affairs of the region. The struggle for a more integrated Arab world is a mixed story--ranging from the positive promise of the Gulf Cooperation Council to the negative internecine squabbles of Arab politics. Libya and Egypt are often close to conflict.

In Latin America regional integration is also a mixed record. Central America in the 1980s is tense under the clouds of war. On the other hand, Chile and Argentina--through the mediation of the Vatican--have diffused the sensitive issue of the Bege channel. Economic cooperation has had its ups and downs throughout the region, but the ideal of greater integration is still a live flame. Africa should watch this distant political laboratory with fascination.

The Northern hemisphere, as a whole, is divided between two economic blocs which coincide with the ideological divide. The split is of course between the socialist world of COMECON (Council for Mutual Economic Assistance/CMEA) and the capitalist world of the North Atlantic Treaty Organization (NATO).

Africa, as a Southern region, on the other hand, is still in multiple fragments. It is now in search of the elusive secret of putting the fragments together. It is in search of the secret genius of cohesion.

Strategies of solidarity are but means to an end. The goal is distant and difficult—but Africa's reach should exceed its grasp or what's a heaven for?

But should Africa's "reach" extend to participation in the politics of nuclear power? Where does Africa fit into these nuclear calculations? How have cultural and racial inequalities affected Africa in the nuclear age? It is to this theme that we must now turn.

Africa Versus the Nuclear Age

It is symbolic of the basic African condition that the first form of African participation in the nuclear age concerned a raw material. Uranium is of course as indigenous to Africa as "the flame trees of Thika" or the baobab tree of Senegal. Africa in the 1930s and 1940s helped to provide the uranium which launched the western world into the nuclear orbit.

To change the metaphor, Africa was in attendance at the birth of the nuclear age. It was in part Africa's uranium from Zaire which helped to set in motion the first nuclear reactor in North America. And for better or for worse, Africa's uranium may have gone into those dreadful atomic bombs which were dropped on Hiroshima and Nagasaki in August 1945. But of course Africa had no say in the matter. An African resource had simply been pirated by others—and once again played a major role in a significant shift in Western industrialism.

Not that uranium was all that scarce even in the 1940s. What was significant was that, outside the Soviet Bloc and North America, uranium seemed to be substantially available only in Black Africa. As Caryl P. Haskins put it way back in 1946:

[uranium] stands next to copper in abundance, is more abundant than zinc, and is about four times as plentiful as lead...However, the outstanding deposits are narrowly distributed, being confined to the United States, Canada, the Belgian Congo, Czechoslovakia and possibly Russia. The fact that the richest deposits of uranium ore occurs in a fairly limited number of places make international control feasible; but it also foreshadows violent competitive struggles for ownership of the richest deposits (the struggle for oil greatly intensified).⁵

Of course, since 1946 other reserves of uranium ore have been discovered in the world, including in different parts of Africa. African uranium has continued to fuel many a reactor in the Western world, and to help create many a nuclear bomb.

The second service (after uranium supply) which Africa rendered to the nuclear age was also symbolic. Africa provided the desert for nuclear tests in the early 1960s. In this case Africa's nuclear involvement had slightly shifted from a purely indigenous resource (uranium) to a partially Islamic context (the Sahara). The transition was from providing indigenous nuclear material to furnishing a neo-Islamic laboratory in the desert for a Western bomb. At least two of the legacies of Africa's triple heritage (indigenous, Islamic, and Western legacies) were inadvertently involved—from the mines of Zaire to the sands of Algeria.

The third African point of entry into the nuclear age has been through the Republic of South Africa. For better or worse, South Africa has probably become a nuclear power or is close to it. This provides the third leg of Africa's triple heritage. Indigenous resources (Africa's uranium), a

semi-Islamic testing laboratory (the dunes of the Sahara), and an actual Western productive capability (white South Africa's expertise).

A circle of influence developed. The progress of the French nuclear programme and its tests in the Sahara probably helped the Israeli nuclear programme. This was a period when France was quite close to Israel in terms of economic and technological collaboration. The French helped the Israelis build a nuclear reactor at Dimona and seemed at times to be closer to the Israelis in sharing nuclear secrets than even the Americans were. The evidence is abundant and clear—the French nuclear programme in the late 1950s and 1960s served as a midwife to the Israeli nuclear programme. And French tests in the Sahara were part and parcel of France's nuclear infrastructure in that period.

By a curious twist of destiny, the Israeli nuclear programme, in turn, came to serve as a midwife to the nuclear efforts of the Republic of South Africa in the 1970s and 1980s. Relations between the two countries cooled a little after the Sharpeville massacre of 1960 and when Israel briefly considered the possibility of extending aid to African liberation movements in Southern Africa. But by 1970 there were clear improvements in economic relationships. And after Black Africa's almost complete diplomatic break with Israel in 1973, cooperation between Israel and South Africa entered new areas, including the nuclear field. When a nuclear explosion occurred in the South Atlantic in September 1979, the question which arose was whether it was primarily a South African nuclear experiment undertaken with Israeli technical aid, or primarily an Israeli explosive experiment carried out with South Africa's logistical support. A cover-up policy was pursued by both countries, helped in part by their Western allies, especially the Carter Administration

in the United States. The cyclical nuclear equation was about to be completed. The Sahara had aided France's nuclear programme, France had aided Israel's nuclear design, and Israel had in turn aided South Africa's nuclear ambitions. Kwame Nkrumah's fear of a linkage between nuclear tests in the Sahara and racism in South Africa had found astonishing vindication nearly two decades later. It was in April 1960 that Nkrumah addressed an international meeting in Accra in the following terms:

Fellow Africans and friends: there are two threatening swords of Damocles hanging over the continent, and we must remove them. These are nuclear tests in the Sahara by the French Government and the apartheid policy of the Government of the Union of South Africa. It would be a great mistake to imagine that the achievement of political independence by certain areas in Africa will automatically mean the end of the struggle. It is merely the beginning of the struggle. ¹⁰

It has turned out that Nkrumah's thesis of "two swords of Damocles," one nuclear and one racist, was in fact prophetic. The Republic of South Africa is using nuclear power as a potentially stabilizing factor in defence of apartheid. The old nuclear fall-out in the Sahara in the 1960s involved a linkage between racism and nuclear weapons which is only just beginning to reveal itself.

But the cultural and technological inequalities between white and black in Southern Africa affect other areas of security—conventional areas as well as nuclear domains. The Republic of South Africa has used its technological superiority to bully its Black neighbors into subaission and into "non-aggression" pacts. The sovereignty of Mozambique, Angola, Botswana, Lesotho, and even independent Zimbabwe has been violated from time to time, sometimes with utter impunity. European technological leadership in the last three centuries of world history has been inherited by people of European

extraction operating in Africa--and has been used as a decisive military resource against Black Africans. South Africa's neighbours have begun to appreciate what it must feel like to be Israel's neighbour--for both South Africa and Israel have seldom hesitated to use blatant military muscle at the expense of the sovereignty of their neighbours.

Again, cultural and technological inequalities have played a part in these politics of intervention. As we have indicated earlier, Israelis have enjoyed military pre-eminence for so long not because they are Jews but because a large part of their population is Western and European. We have argued that had the population of Israel consisted overwhelmingly of Middle Eastern Jews, the Arabs would have won every single war they have fought with their Jewish neighbour. Numbers would have counted. Middle Eastern Jews in Israel are often more hawkish and eager to fight the Arabs, but the military capability for assuring Israeli victory has come more from their European compatriots. Again culture has played a decisive role in deciding victory and defeat in military equations.

The danger both in the Middle East and Southern Africa lies in pushing the weak too far. We have already seen how desperate conditions in the two sub-regions can easily become fertile ground for different forms of terrorism. For the time being, that terrorism in the two geographical areas has not yet gone nuclear. But if the cultural imbalances between Israeli and Arab, between white and black, continue to deepen the sense of desperation among the disadvantaged, we cannot rule out the possibility of their acquiring those nuclear devices one day from radical friends elsewhere. Powerlessness also corrupts--and absolute powerlessness can corrupt absolutely.

But once again there is one kind of powerlessness whose implications are particularly distinctive--the powerlessness of women on issues of war and peace. Related to this issue is the whole question of the psychology of nuclear macho. It is to these sexual questions that we must now return.

The Gender of Nuclear War

In societies which are vastly different from each other, war has so far been pre-eminently a masculine game. "Our sons are our warriors"--this has been almost universal. Daughters have had different roles as a rule. Even countries like Israel, which involve women substantially in issues of war and peace, have tended to be protective of women in the allocation of combat duties.

If it is indeed true that there is a pronounced macho factor in the psychology of going to war, we cannot ignore the macho factor when we are discussing nuclear war. Perhaps that is indeed what is distinctive about war in the nuclear age--it has become too important to be left to men. The whole human species is at stake--men, women, and children. And while the human race has managed to survive for perhaps three million years in spite of the violent proclivities of the cave man, nuclear power requires the most fundamental of all human revolutions--a truly androgynized system of social and political power.

It is true that the most famous women rulers in the twentieth century have tended to be "iron ladies" with a taste for nuclear credentials--Golda Meir, Indira Gandhi as well as Margaret Thatcher. These are the Dahomey Amazons of the Nuclear Age. But for as long as most societies remain primarily male dominated, the women who succeed in the power game will tend to

be approximations of what men regard as tough and heroic. Africa and the rest of the community could only discover the true impact of women on decisions concerning war and peace when the power system as a whole has acquired true sexual balance, commensurate androgyny.

Are we to assume that women in Africa and elsewhere are generally less violent than men? The answer is "Yes"—though the reasons may be more cultural than biological. Our information is inadequate about the causes, but there is no doubt about the correlation between violence and masculinity. The jails of crimes of violence are a solemn testimony; the wars across history; the concentration camps and their Eichmanns. Of course, the world has also produced brutal women. But while men and women have had an equal share in determining births, men have had an overwhelmingly larger share in determining deaths. Men and women are co-creators of the human race, but men have often been solo destroyers of large chunks of that race. The female of the species is the senior partner in the process of baby-making; the male of the species has been the senior partner in the business of corpse-making. In twentieth century alone there has been no female equivalent of Hitler, or Stalin, or Pol Pot, or Idi Amin, or the more brutal architects of apartheid.

In reality we cannot be sure that an androgynized power system either in Africa or on the world stage will in fact succeed in moderating the violent inclinations of states. But perhaps nothing short of a gender revolution can stand a chance of containing the nuclear threat to the species. If that does not work either, the future will be grim indeed for the human race as a whole as it faces its own escalating technological capacity for planetary self-destruction.

Towards the Future

There is one happy prospect that Black Africans can contemplate which the Arabs are denied. Black Africans can contemplate the prospect of inheriting the white bomb of the Republic of South Africa. As we have argued elsewhere in this volume, before the end of this century the Blacks of South Africa will probably succeed in overthrowing the regime of white supremacy. In the wake of the racial war which has to precede the Black victory, half the white population would probably have had to leave the Republic. But it seems almost certain that half the white population of South Africa would in the end also still remain behind. Through that other half, South Africa's nuclear capability would be transmitted from white control to black control.

It is therefore a fair question to ask whether the prospect of a nuclearized South Africa today is a blessing or a curse for the rest of Africa. Is it possible that white South Africa's nuclear bomb is a short-term nuisance for Black Africa but a long-term advantage? Are South Africa's Blacks going to be the legitimate heirs of South Africa's nuclear capability before the end of the century?

There is little doubt that white South Africa's bomb is irrelevant for the survival of apartheid. The main threat to South Africa's racist regime is internal to South Africa—and the regime is unlikely to use nuclear devices in the streets of Soweto. Such a use would, in any case, precipitate a white exodus—at least as serious a crisis for apartheid as the rebellion of Blacks.

But while nuclear power is of marginal significance in the fortunes of present-day South Africa, it may be more significant in the post-apartheid era of the Republic. As the new rulers inherit the white nuclear bomb, they will be transformed from the status of being the most humiliated Blacks of the

twentieth century to the status of becoming the most powerful Blacks of the twenty-first century. Black-ruled South Africa will of course remain not only one of the richest countries in the world in terms of mineral resources, but also one of the most industrialized in the Southern hemisphere. The nuclear capability will remain part of a wider industrial complex.

But can such "horizontal nuclear proliferation" be a cure to vertical proliferation? Again the underlying hope lies in creating the necessary culture shock for a serious commitment to universal nuclear disarmament. In any case, Black inheritance of South Africa's bomb will not be horizontal nuclear proliferation in the usual sense. No new country will have been added to the membership of the nuclear club—only a new race. For the first time the nuclear club will have a Black member. At the most, the horizontal proliferation will have been across the racial divide rather than state boundaries. And since Northern nuclear powers are more afraid of South African Blacks handling the bomb than of South African whites doing so, the new Black member of the nuclear club may well precipitate an agonizing reappraisal as to whether the club should exist at all. The racial prejudices and distrusting of the white members of the nuclear club may well serve the positive function of disbanding the club—and dismantling the nuclear arsenals in the cellars which had constituted credentials for membership.

But nuclear disarmament is not enough. There is need to reduce the risk of war. After all, once the "genie" of nuclear know-how is already out of the bottle, it can be re-utilized if war broke out—and a new nuclear arms race be inaugurated. The ultimate evil is man's proclivity towards war—and not merely the weapons with which he has fought it.

But what kind of fundamental revolution could stabilize the gains in nuclear disarmament and reduce the risk of war? In order to answer that question we need to ask that other question: what has been the most persistent characteristic of war in all societies, across all time, traversing all cultures?

No, the most persistent attribute of war has not been the consistency of motives—for men have fought for reasons which have ranged from greed to glory, from gold to God, from liberty to land, from sex to soccer. The motives have varied but war has continued.

The most recurrent attribute of war has not been its technology either—for we know that the technological range has been from the spear to the intercontinental missile.

Nor has war been a peculiarity of certain climates—for men have fought under the blazing sun as well as in snow drifts.

No, the most persistent attribute of war has not been its motivation, technology, organization, goals, or geographical context. As we have indicated, it has in fact been its masculinity.

But with the coming of the nuclear age, war has become too serious to be left to men. The power system of the world does indeed need to be androgynized. The most poignant of all paradoxes amounts to the following imperative: If man is to survive, woman has to bear arms.

Africa originally declared woman as custodian of fire, water, and earth. The nuclear age is redefining the scope of that triple custody globally. Africa once entrusted to woman both the survival of this generation and the arrival of the next generation through the doctrine of dual fertility. The nuclear age is expanding that responsibility into a planetary agenda for

...live self-preservation. Africa's three future revolutions of gender, race, and power will find their supreme fulfillment when African women take the lead in universal nuclear disarmament and effective arms control. War has for so long worn a masculine mask. Peace may one day unveil a feminine face--perhaps black in complexion.

Footnotes

1. I am indebted to the late Okot p'Bitek, the Ugandan anthropologist and poet, for stimulation and information about myths of womanhood in northern Uganda. Okot and I also discussed similarities and differences between African concepts of matter and the ideas of Empedocles, the Greek philosopher of the 5th Century B.C. Consult also Okot p'Bitek, African Religions in Western Scholarship (Nairobi: East African Literature Bureau, 1971).
2. Margaret Jean Hay, "Luo Women and Economic Change During the Colonial Period", chapter in Women in Africa: Studies in Social and Economic Change, edited by Nancy J. Hafkin and Edna G. Bay (Stanford, California: Stanford University Press, 1976) pp. 98-99.
3. Ibid., p. 105.
4. There is no doubt such arrangements occur in Mozambique. What is not clear is how widespread de facto polyandry is becoming in Southern Africa.
5. I am indebted to the field research and interviews in Southern Africa which accompanied the BBC/WETA television project "The Africans: A Triple Heritage" (1985-6).
6. Edward S. Ayensu, lecture on "Natural and Applied Sciences and National Development", delivered at the Silver Jubilee celebration of the Ghana Academy of Arts and Science (Accra) November 22, 1984.

7. The two Ghanaian visitors were Professor Alexander Kwabong, Vice-Rector of the United Nations University in Tokyo, and Professor Edward Ayensu of the Smithsonian Institution in the United States. See Ayensu's lecture (mimeo), Ghana Academy of Arts and Sciences, (Accra) Ibid.

8. The Voice of America's African Service broadcast a recording of both Nyerere's speech and Nyerere's Press Conference. One such broadcast by V.O.A. African Service was on Saturday November 24, 1984, p.m. Greenwich Mean Time (GMT).

9. Caryl P. Haskins, "Atomic Energy and American Foreign Policy," Foreign Affairs, Vol. 24 No. 4, July 1946, pp. 595-6.

10. Kwame Nkrumah, I Speak of Freedom: A Statement of African Ideology (London: Heinemann Educational, 1961) p. 213.