

**MOVING BEYOND POLICIES TO ACTIONS:  
ENVIRONMENTALLY-FRIENDLY DEVELOPMENT IN AFRICA**

**Amira O.S. Osman  
Department of Architecture and Landscape Architecture  
University of Pretoria**

**ABSTRACT**

This is an attempt to identify the ways in which Africa is unique in terms of environmental issues. Geo-political realities and colonial intervention are what really link African countries together: a shared past in terms of recent history. The present situation is that African countries are faced with the difficulties of coping with unstable conditions, disruptions of local systems and the loss of local identities. These aspects manifest themselves in extremely different ways throughout the continent.

The implications on the environment are the same: poorly managed development, that results in irreversible damage. For this reason, positive environmental interventions cannot wait for wars to subside, economies to improve or oppressive governments to be overthrown. Action must be immediate, but, how?

Approaches to integrated development and environmental management need to be feasible and socially acceptable. The following issues are discussed:

- \* identifying the shared problems within the wide variations of the African context
- \* the relevance and effectiveness of legislation
- \* the importance of education and change in professional attitudes
- \* translating policies into planned intervention

## **KEYWORDS**

Africa; Tradition; Sustainability; Legislation; Education; Professionalism

## **INTRODUCTION**

In this paper, the African context is looked at, so that shared problems can be identified. This will enable African professionals to benefit from each others experiences. It is stressed that Africa is vast and varied, but it is also indicated that the concerns of professionals are very much the same throughout the continent because of our colonial past. The role of tradition is emphasised since it is believed that future development should begin by re-connecting with pre-colonial Africa. This approach will encourage varied approaches to environmental interventions and this is seen as a positive step towards achieving diversity, which is an important indicator of the degree of sustainability of settlements. This cannot be achieved through legislation and is more related to influencing the value systems of society, including professionals, through education and changed attitudes to professionalism

The above is explained through a critical review of the implications that legislation has had in a variety of contexts. Despite the awareness of professionals and societies about the degradation of the world environment, the outcome of these concerns has mainly been more and more legislation. The importance of this is not undermined, but issues such as the content, relevance, degree of participation and co-ordination facilitated should be our assessment criteria for any regulations or laws emerging as a result of legislation. It should also be ensured that legislation be under a continuous process of evaluation and change, mostly because the concept of 'sustainability' is not yet well defined, thus making it difficult at this

stage to be absolutely sure of the suitability of approaches. This could be difficult in terms of management in unsophisticated contexts, but, it is especially important in, the constantly changing situations, of African countries.

The conclusion of this paper focuses on changing professional attitudes through education. This is seen as the major contribution to encouraging involvement in sustainability issues, such as the continuous assessment and adaptation of 'flexible' legislation, the adherence to the recommendations contained therein as well as the identification of appropriate instruments, types and levels of intervention to implement environmental strategies.

## THE AFRICAN CONTEXT

.... I  
*flung open long dis-used windows  
and doors and saw my hut  
new-swept by rainbow brooms  
of sunlight become my home again  
on whose trysting floor waited  
my proud vibrant life.*  
(Chinua Achebe)

Many times when talking about development, sustainability, economy and various other concerns of world nations, we talk about Africa as one context. But, is it? Africa is unique; an African approach; African development. These are phrases that we overhear frequently despite their vagueness.

Africa is, geographically, one continent; it is home to various peoples of different backgrounds and descent who have inhabited its lands since different times in history. Its countries are greatly varied in terms of size, climate, culture, religion, populations, terrain and economy. As professionals in our different fields, what specifically are we referring to when we speak of Africa? For that matter, what are we referring to when we speak of a particular African country? It is not only South Africa that is a rainbow nation. The artificial political borders of African countries complicate the situation even further. Especially when it is now agreed that regional approaches to development, sustainability and economy need to be adopted.

We are always referring to the previous glory of Africa, before the impositions of alien cultures. The sophistication of previous African cultures (Mitiso, 1997;2) has been overshadowed by European culture that is considered standard and is dominating the world. It has not always been like that: "The Old world is a wider, more varied stage than the New." (Wells, 1965;48) But, those old civilisations need to be re-discovered for us to be able to identify with them and to seek new, alternative directions for future development. the continuous search for establishing renewed links with our past, is an aspect that makes us one African context with shared experiences and aspirations.

Lack of awareness of Africa's past civilisations may be due to several factors and is expressed by Hakim (1988;5) as follows: "The colonial conception of Africa, the dark continent without a culture, and the spectacular discoveries

of ancient Egypt as the standard culture and denial of all others.” Other reasons could also be the fact that most of Africa was just at the stage of developing established and consolidated settlements when the colonialists entered it. Cities, as we know them today (and they have not changed much throughout history) did not appear in Southern Africa till the advent of the Dutch settlers around 1750AD. At that time the Funj, for example, in north-east Africa were an expanding and established nation, within a context that had seen the rise and fall of great civilisations since 660BC. (McEvedy, 1980;26) The Meroitic Kingdom was one of the great civilizations of antiquity and was well-known to the Greeks and Romans. (Hakim, 1988;1) Europe’s lack of appreciation for what Africa has to offer in terms of culture, is relatively recent.

Before colonialism, Africa was a diverse place with scattered settlements (mainly in north, west and central Africa). Movement of peoples characterised the southern regions of the continent with trade nodes along its coasts. The history of its civilisations is therefore very different, the northern parts becoming more exposed to the influences across the Red Sea and the Mediterranean. It was only with the advent of colonialism that Africa’s destiny and the concerns of its varied peoples and regions became inevitably interlinked.

Whatever the policies of the colonial powers in Africa, wherever they were, they left an inheritance of poverty or cultural disruption. Maybe the later concern was the worst in that it left the people of Africa unable to cope with the new situations that replaced previous established systems. What was there previously was lost and forgotten and there was nothing to replace it. Because of negative western perceptions of African culture and tradition, there was no encouragement to recognise the wealth of inheritance of local Africans. Ideas and techniques did not develop, adapt and improve as they would have in a normal process of growth and change.

As well as colonialism, the African continent has also been victim to the failed development strategies of those same colonial powers. Disruptions of local systems and the loss of age-old traditions is a major concern to us at present. This is expressed by Al Hatloul (in 1999;28): “People usually become more conscious of a tradition when they begin to lose it.”

## **TRADITION**

It can be argued that changes in traditions and the transformation of societies would have happened anyway. “...tradition may not always be a reliable repository of essential knowledge.” (Mitchal and Bevan, 1992;13) Collapse of civilisations or temporary changes in situations may render a wealth of knowledge forgotten in lapses of collective memories. Tradition was not a reliable force in the face of the disruption brought along with colonialism. Colonial authorities have sometimes changed and transferred traditions that have become integrated with, or replaced previous traditions that one would think that they have been there since time immemorial. (ibid)

However, the importance of ‘tradition’ should not be underestimated. Concepts such as ‘memory’ and ‘recovery’ are important in giving directions for future development. Popper explains that “...tradition arises because of our need for a certain predictability in social life.... tradition provides order and

regularity in our natural and social environment; it provides us with a 'means of communication' and a set of 'conventional usages and ideas' upon which we operate. Thus, the function of tradition is 'explanation and prediction' and our need for structure and regularity in social life sustains it." (Stanford Anderson's re-phrasings of Popper quoted in Al Hatloul, 1998;18)

Undermining of tradition is also due to western ideas of 'development'. Traditional people, who have lived the most sustainable lifestyles, are considered to be the most 'underdeveloped'. Sustainability and progress are seen to be in conflict. Rowe expresses that much of our 'progress' as a human race, has been a process of separation from nature. "To re-connect is the key. Faith in automatic betterment through science and technology is declining, and perhaps the time is right to re-define Progress as the making of more and better connections between ourselves, our artefacts, and the history-nature (time-space) matrix wherein we exist." (1997-98;56)

As present-day 'Africans' we have been nurtured on the value and dominance of European cultures and life-styles, and to 're-connect' is not so easy to achieve. Stanford Anderson distinguishes between social memory and disciplinary memory (1997-98;12) and as professionals, we do not always think in harmony with communities. If we ourselves are willing to give up our conceptions of culture inherited from the west, local societies have their own views to this; what appear to be attractive and sustainable ways of life, are actually an image expressing the dilemma of rapid social change. This is expressed by Groak in the way that we perceive vernacular architecture. (Groak, 1992;38)

In Lesotho, for example, traditional houses, which look attractive and beautiful to us, are being rapidly replaced by what people perceive as modern buildings, using more expensive materials that are not available locally. A study of this particular case explains that the change in preference for living structures has nothing to do with increased comfort or suitability, but rather a "...desire that grows out of superficial contact with "modernity" (Andersson and Sovre, 1995;15)

The forces of urbanization have changed the character of towns and villages alike. People find themselves in alien situations and they are unable to adjust. There is nothing to replace the previous value systems of societies, which results in this superficiality that becomes evident in our material and spiritual world. Re-establishing links with the past, is not a futile attempt to reclaim something that has been lost forever. Different parts of Africa have a rich and varied history, as we have already seen. Sustainability, after all is very much about diversity, and we need to take different directions in development to re-create the variety that was evident in the 'Old World'.

## **SUSTAINABILITY**

Today the African context is characterised by change (as the only predictable factor in all aspects of life) and a wealth of cultural inheritance that is gradually disintegrating and at a risk of being lost. Despite its unique regions, the main characteristic of African countries that justifies an "African approach" is the fact that wherever we are in Africa, the IMMEDIATE concerns are rarely related to the environment, sustainability and all the

other catchwords that the western world is now so pre-occupied with. The immediate concerns of Africa are: poverty, famine, war, crime, corruption and natural disasters. Natural resource management finds no place on the list of priority issues for most countries.

Sustainability is a complex issue with a variety of definitions that cover a wide range of concerns, not all related directly to the environment: "...sustainable development of human settlements combines economic development, social development and environmental protection, with full respect for all human rights and fundamental freedoms, including the right to development, and offers a means of achieving a world of greater stability and peace, built on ethical and spiritual vision." (The Istanbul Declaration and the Habitat Agenda 1998;9). So efforts at addressing any of the pressing problems in the African context are, in effect, a part of the process of making our interventions more sustainable.

A major threat to environmental degradation is increasing poverty and unbalanced distribution of world resources. The reasons for poverty are many times immaterial; it results due to deficiencies in education and organisation. (Schumacher, 1973;164) The unequal distribution of resources at the national and international levels means that the 'development' of some communities in the world is actually drawing on the resources of poorer nations. Certain 'environmental compartments' are unsustainable, in the sense that they are not production-oriented but consumer-oriented. Kiamba (1998;4), for example, explains how the north is drawing resources from, and exporting waste and 'dirtier' industries to the south. To maintain their adopted lifestyles, the ecological footprints of some countries extend beyond their boundaries.

The above concerns are found in the Habitat Agenda. To improve the situation of human settlements in developing countries it is seen as vital to "...address comprehensively, inter alia, unsustainable consumption and production patterns, particularly in industrialized countries." (1998;3) If these issues are not addressed timeously, then all regional and local efforts at sustainable development may have very small impact in the face of the international socio-political and economic forces that are the major cause of environmental degradation.

Sustainability is also about preserving connections with the past. "The sustainability of the global environment and human life will not be achieved unless, among other things, human settlements in both rural and urban areas are made economically bouyant, socially vibrant and environmentally sound, with full respect for cultural religious and natural heritage and diversity." (ibid;59)

Sustainable development, re-establishing links with our diverse histories, creating legislation, all this is happening because of one major concern: it has become evident that our environmental interventions have disastrous long-term implications. The environment, our habitat, where we live, the biosphere is undergoing rapid change due to our continuous interventions. "As habitats disappear species are going extinct at 25,000 times the natural rate. Pollution is also creating enormous stress from acid rain and the greenhouse effect, to the destruction of the ozone layer and the poisoning of fresh water resources." (Muma, 97;2)

The environmental crisis is a design crisis. Our adopted lifestyles, thus, our environmental interventions, have destructive long-term implications. We draw excessively on limited resources and produce immense amounts of waste that is many times very harmful. How we have answered this crisis, so far is through "... a desperate output of regulations that are knocking their heads against a brick wall..." (Bouman, 1999;5)

## LEGISLATION

Environmental legislation is resulting in a dense flow of laws and regulations that are now under scrutiny. Legislation usually has the following shortcomings:

- it is difficult to implement in terms of planned intervention
- it is still not clear what makes a 'sustainable' environmental intervention, thus, much of the recommendations could be questionable
- they could be limiting in terms of innovation and the discovery of different interpretations

Sustainability is a vague term and translating the concept into legislation becomes difficult. "...the concept of 'sustainability' is so multi-faceted and complex that just about everything is sustainable, depending on the line of approach you take." (Wortman, 1999;2) Literature on these issues is confusing and criticism arises due to conflicting recommendations. (Heeling and Westrik, 1999;36)

An interesting article by Stephen Games (1985) explores the ways that legislations issued by the planning authorities in NewYork influenced the growth and changes in the city. In its attempts to combat urban poverty, inner city decline, broken infra-structure and to improve the quality of life generally: "...the planning authority was helping to stimulate the very thing it was trying to avoid." It shows the struggle between developers and entrepreneurs and the authorities who were trying to monitor the quality and magnitude of developments through a series of legislative responses, all of them reactions to, even worse, scenarios that previous legislations had encouraged.

The article also explains the directions that architecture took as a response to restrictions of legislation concerning zoning laws to satisfy the need of developers to attain maximum profit from their buildings. The laws were 'religiously interpreted' resulting in the stepped skyscraper, until Mes van der Rohe built the Seagram building by creating an external plaza beside a relatively taller building. This approach triggered other interpretations such as the indoor courtyard or atrium. It is evident that the way the legislation is drawn up can be limiting and results in the repetition of typologies. Designers are compelled to work within the narrow boundaries of a set of limiting rules.

Laws and regulations have generally been restricting in terms of innovative design solutions. This is debatable since all design constraints are many times conflicting, and design activity is basically about harmonising different aspects of a design problem. Dealing with design constraints,

including regulations, is part of the creative activity of design. It is still realised that the attempt at organising environmental interventions through legislation has not always been completely successful and can generate unexpected reactions and results. This does not imply that there should be no constraints on designs; neither is it intended to view design as an activity based solely on personal expression (as opposed to user/client involvement and group decision-making models as an approach to participatory design). But, as we shall see, some flexibility in legislations could encourage the search for more environmentally-friendly layouts, materials and methods.

Legislation has sometimes focused on one aspect at the expense of another. A criticism of environmental legislation in the Netherlands expresses the same concerns: "Restrictive legislation... is hardly a source of inspiration for innovative architecture. New building typologies are not sought - existing ones are simply supplied with ecologically 'correct' materials... Moreover, legislation tends to stress rather too emphatically the small scale of the building and too little the larger scale of urban planning." (Vink and Vollar, 1999;46) This last point is also very evident in Sudanese legislations.

Legislation in the Sudan, that is intended for the better use of resources, social justice, controlled planning, etc. (Hamdi, 1972) is now a major obstacle to innovation at both the scales of town planning and individual building designs. Planning and building regulations are encouraging wasteful use of land, thus unsustainable. "Regulations are restricting the development and creation of more interesting climatically suitable morphological layouts." (Agraa, Ahmed, Haywood, Elkheir 1985;245. The same issue is also discussed in Ahmed 1983 as quoted in Boon 1990;13)

In this particular context, the legislations are distinguishing between different areas, thus, promoting a class system in society; they are promoting prejudice against traditional materials and building methods that may be more 'sustainable' than modern methods, thus, destroying social and environmental diversity; they are forcing designers into moulds that cause monotony and lack of innovation; legislation focuses on individual aspects of development, such as buildings (treated as isolated 'islands') or building elements, rather than encouraging communal approaches to development.

In addition to this, lack of co-ordination between authorities and poor management potentials render important aspects of legislation impossible to enforce. Authorities in charge of the municipal sewage system and those in charge of the municipal drinking water treatment are each operating individually which has had serious implications in the services that they are delivering. Tourist authorities are issuing contracts for the development of tourist facilities without co-ordination with, for example, the authorities concerned with sanitation. This has had disastrous implications in that sanitation facilities are being constructed in areas that are prohibited by legislation. These are just a portrayal of various ways in which 'legislation' can go wrong in an unsophisticated context such as the Sudan. It also shows the negative impact that colonialism had in terms of the inherited system of class sub-divisions as well as lack of appreciation for local methods, materials and town planning approaches.

In an analysis of an urban design study for the Riyadh city centre, El Hatloul (in 1999; 27) comments as follows: "...traditional regulations



emanated from behavioural rules of conduct; thus, they were prospective in nature, specifying actions or behaviours that were allowed but leaving the door open for creativity. Regulations today are prescriptive in nature, specifying what is allowed and how it is to be done, thus, narrowing design options and limiting creativity." He believes that regulations should focus on what designers should not do, rather on what they should do, thus, giving them the flexibility to explore. In an interesting view of the situation, El Hatloul describes the existing regulations for buildings as "...the liberals' position that progress is an intervention that should come from outside society. Whether consciously or not, they desire to wipe away traditional norms and conventions." (ibid;30) Design legislation and the responses they are generating are an important aspect of the regionalism/globalism dialogue.

The fact that sustainable development is a part of the South African Bill of Rights, in the new constitution is no guarantee that development in South Africa will now be sustainable. Design is many times about values. Socio-economic, cultural, ethical and moral implications embedded in our design solutions are a reflection of our own values. The way we design depends on our perception of the world and our view to issues such as good/bad, beautiful/ugly, right/wrong.

Positive guidelines for environmental development within legislation are difficult to monitor and implement. Environmental concerns should be established as part of the value systems of individual designers, as well as the value systems of larger communities. This does not mean that we can do without legislation, but it stresses the fact that laws and regulations are only a small step towards dealing with the problem. The only way to deal with this aspect of instilling sustainability values in the mindsets of future designers and decision-makers is to through a change in professional values, through education.

#### **BEYOND POLICIES TO ACTION: EDUCATION AND PROFESSIONALISM**

One of the problems of education systems in many African countries is that they are based on colonial models that have not been changed much. The major contribution of education to development is well appreciated, but what needs to be stressed is the relevance of content of an educational course. This is not just about the knowledge-base evident in curricula, but also about the values and attitudes that it encourages, through the methods of learning/teaching. This is achieved through the simulation of the complexities of the working environment with all its actors, their conflicting interests, within their constantly changing contexts.

It is true that regional contexts should be studied in the light of global heritage and experiences, but, education needs to be characterised by some degree of 'specificity' always to the benefit of the locality in question. Educational situations for communities and students can be combined. This can be coupled with inter-disciplinary inter-action and context-related research.

The major cause for the alienation of professionals from their local communities in African countries is that they do not identify with them, and they have not been trained to cope with their particular problems. In facing

the most pressing problems, professionals many times lose the general public's trust and confidence in their abilities and knowledge. We have been through similar scenarios before. The embarrassments faced by the different professions due to, now rejected, approaches to development and housing have resulted in major paradigm shifts. We probably have to go through a similar process in order to find some direction in our quest for sustainable development.

Education is a long-term solution to issues of sustainability, and there are no shortcuts. Professionals are required to deal with production-oriented ecosystems, low-investment development and micro-solutions. Implementable design solutions that focus on people-participation means that a complete change in professional attitude should be encouraged. Professionals should have an intimate knowledge of the context they work in and their solutions need to be small scale, direct and responsive. They need to be skilled in translating environmental priorities into planned interventions through programmes and projects at 'grassroot' levels within communities. Broader applications are risky and liable to failure due to organizational disintegration and economic instability. Interventions based at the physical/cultural/social regional levels, that is, at the level of small localities, is less liable to be affected by upheavals in government structures or economies.

Individual initiative in professionals, that can be motivated through education, will ensure continuity of sustainable practices more than policies could do. It could be argued that individual efforts cannot survive the constant flux of political, social and environmental changes in 'developing' countries. But, the complete 'uprooting' of institutions that has happened with, for example, the advent of new governments, makes one doubt whether the institutionalisation of positive approaches is a better alternative. Maybe it is only lengthy periods of stability that could guarantee changes on a major scale. Yet, that brings us back to the issue of sustainability being extremely 'multi-faceted' in its definition.

We have seen that legislations can only do so much, especially if the roles of different authorities are not well defined and their collaboration well organised. Probably, alternative approaches will be seen as non-professional or political. Sustainability is about peace, democracy and equality so that cannot be avoided. Instilling the values of sustainability in professionals could sometimes not be effective because they may find themselves in situations where they are completely excluded from decision-making. This is a case that is common in some African countries. Should our training prepare us to be 'underground professionals' (a term used by Harms, 19 ) if the need arises?! There is no escape from politics.

Another issue is our identity as professionals. It is not a question of us understanding the context we work in. It is a question of us identifying with it and seeing our own roots within it. The isolation of African professionals is even more evident in South Africa, where the categories are not just 'educated' and 'non-educated'. In this context it is not just a question of identifying with your own community and your own past, but also of identifying with other South Africans who have, through systematic segregation become different communities with their own particular experiences. In all cases, it is not a question of forcing ourselves into African 'moulds' but it is a

renewed awareness of 'dormant' identities that have not received the appreciation they deserve.

Positive action-oriented approaches in sustainable development can be achieved when there is well-directed initiative in the individuals who have an impact on our environment through any kind of human activity. This, very simply, means everyone. But, professionals are many times in decision-making situations that affect more people, with a greater impact, in terms of scale, on our environment. A change in values is the only guarantee that policies, organisation and intervention concerning our fragile environment will ever succeed in reversing, or at least halting the damage that our lifestyles are inflicting on the planet.

## REFERENCES

- Agraa, O. A. ; El Kheir O. ; Haywood, I. ; Ahmed A. M (1985) *Human Settlements in Greater Khartoum* Khartoum University Press
- Ahmed, H. A. (1981) *Waste Disposal Systems in Khartoum* in Boon, Caroline De Jong (1990) *Environmental Problems in Sudan*, The Hague
- Al-Hathloul, Saleh (1998) *Continuity in a Changing Tradition* in Davidson Cynthia C. (Editor) *Legacies for the Future, Contemporary Architecture in Islamic Societies* Thames and Hudson Ltd. and the Aga Khan Award for Architecture
- Anderson, Stanford (1998) *Memory Without Monuments: Vernacular Architecture in Traditional Dwellings and Settlements* Review, Journal of the International Association for the Study of Traditional Environments, Volume X No.1
- Andersson, H. and Sovrè, M (1995) *Traditional Rural Dwellings in Lesotho* MFS Report, Stockholm Sweden
- Bouman, Ole (1999) *Disrupted harmony (Editorial)* in Archis International, The Netherland Architecture Institute and Elsevier Business Information
- Games, Stephen (1985) *Behind the Facade* Aeil Books, British Broadcasting Corporation
- Groak, Stephen (1992) *The Idea of Building, Thought and Action in the Design and Production of Buildings* E&FN Spon, London
- Hakim Ahmed M Ali (1988) *Meroitic Architecture, A Background of An African Civilization* Khartoum University Press
- Hamdi, M H (1972) *Effect of Building Laws and Regulations on Environment* Man, Environment and Development Workshop, Khartoum

Heeling, J. and Westrik, J. (1999) *The City Has Been Sustainable For Centuries* in Archis International, The Netherland Architecture Institute and Elsevier Business Information

Kiamba, Makau (1998) *The Greening of Development: Thinking Globally, Designing Locally* in The Horizon DAT, Nairobi, Volume 2 No. 1

Mtiso, Reuben G. M. (1997) *Practice of Architecture in the Next Millenium* in The Horizon DAT, Nairobi, Volume 1 No. 1

McEvedy, Colin (1980) *The Penguin Atlas of African History* Penguin Books

Mitchell, M and Bevan A. (1992) *Culture, Cash and Housing. Community and Tradition in Low-Income Building* VSO/IT Publications

Muma, Godfrey G. (1997) (unpublished) *Environmental Problems in Lesotho* on behalf of the National Environmental Secretariat, Prime minister's Office, Maseru

Rowe Stan J. (1997-98) *Progress and Connectedness* in The Structurist, No. 37-38, Canada

Scumacher, E. E. (1973) *Small is Beautiful* Hazell Watson and Viney Ltd.  
United Nations Conference on Human Settlements (Habitat II 1996) (1998) *The Istanbul Declaration and the Habitat Agenda* United Nations centre for Human Settlements (Habitat) Nairobi

Vink P. and Vollaard (1999) *On Sustainable Building, The Green Challenge* in Archis International, The Netherland Architecture Institute and Elsevier Business Information

Wells, H. G. (1965) *A Short History of the World* Penguin Books

Wortmann, Arthur (1999) *Sustainability on Trail, Architecture and Ecology* in Archis International, The Netherland Architecture Institute and Elsevier Business Information