

ENVIRONMENTAL COGNITION AND LANDSCAPE RESEARCH: ISSUES AND OPPORTUNITIES FOR ENVIRONMENTAL PLANNING IN NIGERIA

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Within Nigeria, the environment as a setting for work and living and as an object of aesthetic appreciation has of recent stimulated a great deal of concern. As this interest is sustained, the nature of management system to be adopted and the range of issues to be tackled would increasingly be of concern to academics and planning practitioners. This essay does not directly address issues of terrestrial or environmental pollution nor does it have as its primary focus the ecological implications of economic processes and resource use. Its central theme is the visual setting around us, their appeal as well as recreational and aesthetic needs.

Through individual or group interests and the activities of the various Environmental Task Forces in the country, public consciousness has been reawakened to the theme of aesthetic appreciation. In fact, what has probably not been given commensurate attention is the system or framework within which to discover indicators of aesthetic satisfaction with the environment and to manage environmental quality. Environmental cognition, perception and landscape research which has been largely neglected in social science and environmental research in Nigeria provides one possible outlet whereby we can gain an insight into these qualities and incorporate them into environmental planning. By reviewing and evaluating the role of such studies and their use in environmental policy formation this paper, fills a gap in environmental research and provides a supporting framework for landscape management in Nigeria.

Environmental Cognition and Landscape Research in Context

The terms 'cognition' and 'landscape' are perhaps the most important concepts in any appreciation of the environment about us. Yet, they are some of the most difficult terms to define. Most people experience landscapes as 'vistas', as visual cues or portions of an environment that are at once 'cognized' and which thus register some affective, connotative messages or meanings in the brain. The yearning for an ideal, pleasurable, stimulating and humane habitat is a universal urge. Thus, a habitat must not only support a livelihood but also "cater for our moral and a aesthetic nature" (Tuan, 1979). This urge, and our encounters with landscapes, are often so great, that sometimes childhood memories of landscapes are recalled (Marcus, 1978; Riley, 1979), in which case there is a desire to recreate them to enhance our personal identity. Landscape experience also has its psychological impact on life, and

studies have shown that exposure to natural, rural landscape rather than to urban scenes creates harmony, limits personal tension and enhances overall psychological well-being (see Ulrich, 1981, 1979).

A nation's pride in the exotic quality of her environment is also tied to real or imagined qualities which the landscape communicates to tourists and residents. These points demonstrate the benefits of considering landscape 'appreciation and planning as a part of national environmental management.

Landscape Heritage in Geography

Landscape study is multidisciplinary. Geography being concerned about the character and attributes of places is one of the earliest disciplines to have had as its central focus the theme of landscape quality assessment and place description. This is evidenced by the preoccupation of early geographical explorers with idiographic and comparative accounts of the various national scenes visited. By employing personal insights and imaginative judgments, the early explorers attempted to capture and describe the unique Dualities of landscapes and regions (Prince, 1961; Gilbert, 1960). Later, the interpretation of national landscape character, values, and attitudes relied on literary accounts of authors (Pocock, 1981), historical documents (Lowenthal, 1975; Meining, 1979) as well as on group discussions and research interviews (Seamon, 1979). Geographers thus have attempted to explore the relationships between cultural landscapes, places and people in both evaluative and interpretive sense (Tuan, 1974; Lowenthal, 1968; Yoon, 1982).

Lowenthal and Prince (1965, 1964), for example, employing a combination of literary insight and historical records were able to establish that the passion for the countryside, for the old and picturesque, the love of detached houses, and green gardens, represented major influences in English landscape preferences and in the policy of preservation management adopted. Americans, by contrast, in their relation to landscapes not only trivialize the past but tolerate and positively worship newness or modernity (Lowenthal, 1976), thus demonstrating the fact that national landscape tastes differ and are mediated by culture. Very little is however, known or documented about national landscape preferences and attitudes in Nigeria, if future planning is to be more meaningful and responsive to people, studies on landscape character and values are needed. Such a challenge, it may be argued, can be partly met if geographers and other professionals in Nigeria develop their academic programmes to incorporate landscape evaluation.

Environmental Cognition and Landscape Studies

Definitions and Explorations: The terms 'cognition' and 'perception' have often been interchangeably used in environmental research. 'Cogni-

tion' is the activity of knowing, encompassing the acquisition, organization and. use of knowledge; it is participatory in nature. A 'cognitive' structure or 'schemata' prepares the person to accept certain kinds of information from the environment (Neisser, 1976). 'Perception' on the other hand, though more frequently used, is operationally less attractive in environmental research as it connotes immediacy of experience -stimulus and then response in the psychological sense. Thus, French (1963), concludes that as "experience becomes less immediate and the amount of inference by organism increases, processes of cognition have become involved" By extension, environmental cognition reflects the way people understand, structure, learn and use 'mental maps' to negotiate the environment (Rapoport, 1976; 1977). Environmental cognition, therefore, may involve an individual's past, present and future anticipation of events, not necessarily dependent on the presence of a stimulus or first hand knowledge (Potter, 1985; Pocock and Hudson, 1978).

Landscape is one of the most attractive but difficult environmental concept to define. It was Meinig (1979), who, in fact, pointed out that landscape . is an *attractive*, *important* and *ambiguous* term, .often used synonymously with nature, scenery, environment, places, regions, area, etc., although it is not necessarily identical with them. It is an attractive term because it may depict some memorable places, pleasurable natural sceneries in the minds of people, or even remind us of ecological problems. It is important because it carries the above connotations, entailing major environmental matters of professional interest and public concern. The term is equally ambiguous as it is used by many people and disciplines for a variety of purposes.

Despite the variety of things which it connotes, the term 'landscape' is, however, specific in its central concern. Whereas, for example, the environment surrounds, sustains and envelops us, landscape is less inclusive, more detached, not so directly part of our organic being. Landscape is defined by our vision and interpreted by our minds. "It is a panorama which continually changes as we move along any route" (Meinig, 1979). Landscapes thus have the physical connotations of views or sceneries before us. They not only have physical meanings but, more importantly, value/emotional meanings and aesthetic, as well as symbolic significance (Sonnerfeld, 1966). From this perspective, landscape study and planning may be seen .as i- activities designed to enhance and protect the beauty of sceneries, evident or experienced, in the various phenomena of nature - landforms, vegetation, relief, valleys, mountains, seashores, deserts, islands, meadows, etc., as well as those of the built environment -parks, monuments, gardens, streets, neighbourhood scenes, buildings, etc.

Although the evaluation of landscapes for planning is the core concern and landscape aesthetics (the study of landscape beauty as apprehended by the senses), landscape aestheticians have often not provided the major answers to the problems of representative landscape planning because of difficulty of measuring landscape beauty. Do landscapes, for example, have some inherent attributes which can be objectively assessed and compared in some respects? It is not strange that landscape researchers and social scientists have preferred to discuss questions of individual, group and societal landscape preference, taste, perception, interpretation, evaluation, management and modifications as more tangible surrogate indicators of aesthetics (Punter, 1982). In the same light, environmental cognition and related studies in landscape research have played key roles in landscape planning and development.

The Role of Environmental Cognition in Landscape Evaluation and Planning:

The importance of cognitive studies to landscape research derives from the nature of landscape itself. Landscapes though affected by ecological problems are directly experienced very often as segments of visual qualities in the environment. Thus, the cognitive approach not only tackles the issue of landscape quality from the perspective in which it is experienced by the person but also introduces elements of cultural and individual variation in the meaning and significance attached to landscapes, which often are suppressed in professional, scientific/objective assessments (Rapoport, 1977). As Lowenthal further points out, personal idiosyncrasies are involved in landscape appreciation, as such:

"the search for universals in Landscape attraction is futile, judgments of landscape quality even more than those of works of art, involves the beholder's active participation"
(Lowenthal, 1978)

Environmental cognition research which is people-centred and place-related thus provides a humane, democratic context to elicit information pertaining to public values, and attitudes towards landscapes. By discovering those values inherent in the ordering of landscapes, an appropriate, less conflict-ridden context is also provided to debate landscape quality construction and modifications. The preferences of professional landscape architects often differ from public judgments (Buhyoff, *et al*, 1978) while those of authors, artists, painters, conservationists who speak or write so much about landscapes are unrepresentative and elitist in orientation (Lowenthal, 1978). Such views provide inadequate guide to our understanding of the nature of environmental experience and landscape values (Burgess and Gold, 1982). By contrast, environmental cognition research represents a channel for involving the public in decision-making, reaching a greater number of interests and drawing

popular support for programmes of landscape change and creation, more so in the Third World where political representation is restricted.

Moreover, cognitive-based landscape research is a meaningful response to professional architects and landscape designers' preoccupation with formalism. Undue attention has often been paid by professionals to 'form', 'massing' and the detached detailed description of the visual features of landscapes drawn from theories of aesthetics, to the neglect of the personal aspirations of people (Appleton, 1975; Helliwell, 1976; Cullen, 1971). The shift in landscape planning from one founded on scientific, system-based geo-ecological evaluations of landuse, the concept of an ecological balance, carrying capacity, landuse capability and optimal landuse (Takeuchi, 1983), to one which increasingly considers the anthropocentric relationship of man to landscape, perceptual qualities and societal needs (Drdos, 1983), represents a positive challenge to the methodological shortcomings of scientific, impersonal approaches. Much of recent philosophical and methodological developments (Chokor, 1986) in the field have, in fact, attempted to address landscape evaluation from a more humanistic angle, also representative of a major movement away from the previous behaviourist stance of cognitive research.

Despite the stress on the irreducibility of landscape experience by humanists, no major methodological breakthrough can be said to have occurred. There is still a heavy reliance on individual researcher's insight, the use of literature and narrowly construed participant observation or group discussion research, in making judgments or statements on valued landscape* (Relph, 1981; Pocock, 1981). Materials from such studies over-emphasizing individualistic experiences and unique qualities are, however, not easily incorporated into the practical demands of professional landscape planners (Chokor, 1987a). Some recent developments in landscape quality evaluation, it may be argued, while not neglecting humane feelings in incorporating formal statements of landscape cognition processes into a comprehensive model of landscape appreciation (with corresponding techniques of evaluation), have provided a more viable avenue to assess landscape values/attitudes.

The model of landscape quality adopted, for example, by Shuttleworth (1980a) considers some of the worries surrounding excessive subjectivism of the humanist's appreciations and responds equally to the challenges of the pragmatic needs of professional landscape planners. As convincingly argued by Shuttleworth, the first stage of landscape quality experience by the individual is landscape description, whereby the landscape acts as a stimulus and the individual's perception enables him or her to describe and classify features of the landscapes. The second stage encompasses aesthetic appraisal in which landscape value statements and verbal assessment* are made and landscape aesthetic features characterized. Finally, an overall landscape aesthetic evaluation is made with some kind of comparison of aspects and qualities of one landscape to another.

The use of verbal questions, and the development of semantic adjectival checklists of words or phrases which connote or reflect aspects of landscape experience has facilitated the exploration of the first stage, (Burgess, 1978). The science of sign (semiotics) and the use of semantic scales (Semantic Differential Technique) which assesses the degree to which an attribute is present in a landscape has enhanced the exploration of the second stage (Kfampen, 1979). Preference rating or the rank-ordering of various landscapes has been the dominant framework through which comparative appraisal evident in the last stage has been explored (Helliwell, 1978). Furthermore, in most landscape studies, the close correspondence between actual landscapes and photographs or surrogates of those landscapes (Shuttleworth, 1980; Dunn, 1976) has aided immensely the representation and presentation of landscapes to people for evaluation without the need for direct experience of sites. In general, the range of techniques in environmental cognition research (Chokor 1987a) embracing psychometric methods, questionnaire surveys and discussive approaches are most suitable to the appraisal of current landscape values and attitudes, while the past may be fruitfully explored using interpretive methods that entail historical reconstruction, landscape representation and symbolization (Cosgrove and Daniels, 1987, Lowenthal, 1975).

An important and major conclusion at this stage is that landscapes are increasingly of significance to the environmental welfare of people and the quality of life experienced by them. Nigeria may achieve, as well, a livable environment through meaningful landscape development efforts. Appropriate landscape research endeavours backed up by timely control and management practices have been partly responsible for the enhanced visual/aesthetic quality of some Western and non-Western landscapes, in spite of the capitalistic and exploitative attitude of the western man towards nature. Such landscapes are often places of attraction to tourists and recreationists.

Issues and Opportunities for Environmental Planning in Nigeria

One of the most striking points arising from the discussion so far is that a great deal of research and information is needed in Nigeria and in most other parts of the Third World to ascertain landscape values and attitudes, and to determine the course of landscape change and environmental planning. Also linked to this point is the need to critically appraise the benefits of beautifying our built-environments and preserving our natural heritage landscapes against the background of increasing environmental defacement attributable to indiscriminate resource extraction for economic needs and an emergent pace of urbanization/suburbanization (Sada and Odemerho, 1988). Very often, this kind of spontaneous urbanization produces a complex mixture of ugly urban structures or cityscapes with divergent, conflicting landuses. Minimal attention has

been paid to standards required to design and consciously create aesthetically pleasing street scenes, parks, gardens, etc. The structural chaos and blighted scenes associated with Nigerian cities is best seen in the complex admixture of wares, poles, building colours, sediment, television masts, advert signs, commercial products and structures that line the streets, together with the dilapidation evident in several neighbourhood scenes. Nigerians who are familiar with Warri, for example, would be amazed by the massive transformation that has taken place along Wairi-Sapele Road axis, from the 1960's when it consisted of a peaceful street scene with little opportunities, to the 1970's and 1980's when, through increased consumption and commercialization, it grew into one of the ugliest cityscapes in Nigeria, characterized by a notable unsightly array of television poles/masts, the filling up of available open spaces with substandard housing structures and dense, disproportionate arrangement of a range of environmental objects/structures.

Although suburban and Government Reservation Areas (G.R.A's) (with greater controlled development) and core inner-city landscapes exhibit contrasts in aesthetic characteristics, blighted urban scenes are not restricted to inner-city slum districts. The erection, for example, of high walled-fences, though a necessary means of securing privacy and abating crime, is one recent development that is probably ruining the character of suburban landscapes and the G.R.A's. In Nigerian cities similarly, rural/countryside landscapes have had their quality damaged by urban-propelled resource extraction. Observers of nature and those who appreciate, for example, our village scenes/vernacular architecture (Duly, 1976) would marvel at the rate and scale of uncontrolled change which rural landscapes are being subjected in the craze for modernization. A major implication is that we are at once losing much of the beautiful scenery of our natural environments/countryside (without meaningful preservation) while failing to provide stimulating urban environments where people can live, work and recreate. The mental, spiritual health and productivity implications may best be assessed by psychiatrists and other scientists.

The recent concern shown by Environmental Sanitation Task Forces in the country expressed in urban bush clearance, street/neighbourhood cleaning, etc., together with the activities of the Nigerian Horticultural Society, the Nigerian Conservation Foundation and other spirited public campaigns aimed at cultivating beautifying flower/trees, and preserving our animal/plant species, are indicative of the fact that people still Care about the aesthetic qualities of the environment. However, such efforts, it would be shown later, are not enough.

Nigerian Landscape - A Lost Heritage:

In addition to this recent concern shown for environmental aesthetics it must be emphasized that Africa has a rich heritage of landscape appreciation

Creation and management. Such a heritage, established by our forefathers, it would IDC demonstrated, poses a challenge to contemporary environmental management practices.

In Nigerian and other African cities before European conquests, humane landscape constructions were the epitome of environmental creation and management, Nigeria including some Other Third World areas in their environmental creations envisaged a harmonious and interdependent relationship between nature, gods, plants, animals and man (Sandbach, 1980), that reflected the environmental wisdom of the people. Thus, Hull (1976), concluded that before colonization "community layouts mirrored the laws of nature and the forces of philosophical thought. So humane were African towns and cities that they were regarded by their inhabitants as the concrete expressions of their inner thoughts about man, nature and the cosmos." Clarke, an American traveller to the Yorubaland between 1854 and 1858, noted with admiration, the beauty of the Yoruba country and the aesthetic setting of towns and villages which contrast the present disorderly arrangement of urban structures. Yoruba towns, he pointed out, exhibited remarkable regularity in street layout. In addition, the use of appropriate shade tree, the artistic setting of neighbourhoods within the natural relief environment combined with general environmental tidiness formed a part urban management practice and community planning ideology (Clarke, 1972). The natural countryside, the mountains, the gardens, the blue sky, the glittering rivers, the flora and landforms of Nigeria, West Africa and Africa were the subject of poetic, romantic writings by European explorers. From their own accounts, such 'exotic' landscape provided a relaxing, stimulating setting, and promoted overall psychological well-being or comfort at various stages of the difficult tension-filled journeys undertaken by them Gwynn, 1934; Miller, 1907; and Huichinson, 1855).

The historical landscapes of Nigeria thus reveal the role of human thoughts, beliefs, values and perceptions in achieving a balanced national ideal and ideology of landscape planning and management. Although this rich heritage has been lost, current development in cognitive/landscape research still provides us ample opportunities to investigate the range of criteria necessary for more meaningful landscape design, planning and: conservation. Given our national diversities such research must adopt a range of techniques of landscape quality evaluation, as earlier described, to capture variations in tastes amongst different ethnic, cultural, social and environmental groups. Foundation studies are beginning to emerge (Chokor, 1987b, 1989). Given the magnitude to environmental, landscape issues that confront us, more comprehensive studies are required to provide vital information needed to create, recreate and transform landscapes along acceptable lines. This could reduce the restricted professional involvement in both the formulation and execution of landscape

development policies. A well coordinated, comprehensive, skilled personnel, particularly in the areas of landscape planning, landscape architecture. These groups are currently in short supply.

Other issues raised by the current state of the Nigerian landscape include the need for financial, resource commitment to programmes of landscape planning, together with the political will and appropriate regulations and an institutional framework to carry out such programmes. Indeed, without these basic inputs as outlined above it would be difficult to speak of a meaningful breakthrough in landscape beautification in Nigeria.

Despite the limitations to landscape planning in Nigeria, a cursory look shows that a number of opportunities abound. Nigeria is blessed with a range of natural and historically man-created landscapes with wide-ranging features and characteristics. From the viewpoint of the natural setting, landscape resources are immense. For example, the rich flora, mangrove swamps of the Niger Delta, the rain forest belt of the South, the Savannah grasslands, Sahel/semi-desert zones of the Middle-Belt and Northern Nigeria are interspersed with beautiful features and sceneries. This includes the plains of Ogoja, the hilly, mountainous and plateau sceneries of Adamawa, Jos and Mambilla, the inselberge landscapes of the Yoriibaland and the Middle-Belt together with the National Parks/Games Reserves at Kainji and Borgu, the numerous forest' reserves, the warm springs, and the glittering, fresh waters of our numerous river valleys. The traveller transversing Nigeria cannot but be awed by manifestations of our rich natural landscape heritage. These, features when planned and commercialized through appropriate tourism promotion efforts will constitute avenues for recreation and revenue generation, as practiced in many countries, where some of our urban elite go to spend their holidays. The demolition and mining of some of the strikingly beautiful inselberg 'sculpture' or scenery on the Kaduna/Abuja express road junction (particularly the Zuma Rock outcrop) for building stones shows, however, how little the authorities presently care to appreciate and protect the beauty of our natural landscapes.

Nigeria is also blessed with beautiful 'relics' of our historical past. Recent interests shown in the preservation of the Benin City Moat, the historical gates and walls of Kano, Sokoto, Maiduguri together with the movement towards the creation of gardens, open spaces, playgrounds and parks in cities, particularly in Enugu and Owerri, are indicative of some positive efforts by the leadership to protect these things that bind us socially, historically and culturally. While such efforts are commendable, adequate steps based on a well-coordinated programme of national standards, codes and guiding principles/ideals are yet to be formulated to reconstruct, our past, reflect them in landscape creation and. protect our cities and rural centres from their current aesthetic blight and confusion.

Tackling Landscape Planning and Conservation Problems in Nigeria: A Suggested Framework

Nigeria, as already argued, has repositories of ancient historical landscapes and exhibit a range of valuable natural landscape .types of sceneries. Argument may be raised as to whether we need to take seriously landscape aesthetics or qualities when the primary concern now is one of raising the level of economic development and living standards by ensuring that people have basic shelter, food and are free of common diseases. The position of this author is that while these are real pressing issues, landscape beautification is itself a resource. An environment allowed to degenerate while minimal control measures are possible transfers cost to future generations, when re-planning and preservation becomes inevitable (Mabogunje, 1988); besides, the quality of life of inhabitants is affected. The main problem of environmental management and landscape planning in Nigeria is not so. much one of financial resources needed to carry out required programmes as of limited foresight and absence of the basic application of human, administrative skills and regulatory controls to achieve desired goals in the environment ever before developments get out of hand or require more financial inputs.

To reconstruct our damaged landscapes for enhanced visual appeal, especially in our blighted urban centres, and protect our natural heritage environments, the first step is to create a National Landscape Planning and Development Unit under the Federal Environmental Protection Agency established under Decree Number 58 of December, 1988. Part II of the Decree gives the Agency powers to establish national environmental criteria, guidelines and standards. Although the emphasis is specifically on water and air quality, atmospheric protection, noise and hazardous substances/effluent waste in establishing such standards (Federal Military Government of Nigeria, 1988, pp. A915 - A918), a Landscape Protection Unit and its activities may be incorporated by exploring the general provision of the Decree which states that the "Agency shall, have responsibility for the protection and development of the environment in general" and including the initiation of policy in relation to environmental research. Moreover, there is a provision which states that the Agency has power to "advise the federal Military Government on national environmental policies and priorities" (p. A912). Once a landscape protection unit is established under the Agency its first assignment, and in collaboration with landscape research groups, geographers, the National Tourist Board and their state counterparts, environmental research in-situations and planning authorities in the states it should set out to initiate research and document,-classify types, use, potential and benefits of aspects of our national rural and urban landscapes. By integrating landscape use. modifications, change and creation regulations into environmental protection measures and standards, a more coherent and

wholesome environmental planning will "be- achieved for the country. A key aspect of the proposed research of the unit would be to identify things that disfigure or reduce the amenity value of a landscape and those that beautify it. It should also encompass the identification and description of existing landscapes while setting acceptable standards to embark on a programme of landscape management. Programmes for the management of visual landscape qualities should be coordinated with other related planning programmes on pollution control and landuse management.

Efficient, sustainable utilization of resources embracing ecological and self-reliant principles must underly the ideology of overall environmental management to minimize the impact of resource use on natural and man-made habitants (O'Riordan, 1989). Programmes of landscape beautification must incorporate the identification of representative natural, scenic and man-made cultural landscapes and their protection from undesirable effects of human activities or natural processes. This also implies a call for habitat and landscape preservation policies aimed at the identification, mapping and selective management of heritage sites of local, regional, state or national importance/interest, for example, natural tourist physical landscapes, city walls, moats, historic buildings and mountain/river or vegetal sceneries. Adequate regulations restricting or prohibiting individual developments that are incompatible with set objectives/ideals of landscape preservation together with a time-table for public development/management must form part of the package. Part of this may be achieved through direct purchase or public acquisition of heritage sites from their original custodians. The formation of the Plateau State Tourism Corporation and the bold step being taken to develop the immense tourism and recreational natural/man-made landscapes of the state are novel but valuable examples to other states of the Federation.

Programmes of landscape development may not aim to achieve comprehensive planning, rather, emphasis should be on providing a comprehensive national framework within which to operate landscape change amongst government bodies, groups, individuals, etc. (Haynes, 1980). Professional groups of committed citizens must be identified and trained to implement development proposal.. There should also be emphasis on phased redevelopment of landscapes which are classified as blighted while those which have retained their character are protected. A comprehensive National Landscape Beautification and Nuisance Control Act could emerge from research efforts on landscaping standards and would be of immense value to control efforts by the Agency. Presently, existing control measures are inadequate, uncoordinated and the overall objective is not clear. There has been for example, a provision which allow most planning authorities wide-range powers to "prohibit the erection of buildings, structures which they think may disfigure the locality or cause depreciations of the value of properties in the locality or detract from the amenities of the neighbourhood'? (Ola, 1977).

But since these rules are not linked to a nationally formulated and directed programme or objectives for landscape beautification they have neither been seriously enforced nor invoked to guide landscape development. The present 'militarily' enforced codes of environmental cleaning; and ethics evident in the operation of Environmental Sanitation Task Forces has succeeded in transferring motor mechanics from city centres to the suburbs, But At the same time, it transfers urban blight to the countryside or the fringes of cities which are supposed to be the symbol of natural beauty.

Still within the-same framework for the management of the environment for commercial and recreational activities, it is suggested that the range of landscapes offered by the different sections of the country be compiled for development and should form-part of the landscape research; programme earlier outlined. Regional contrasts in landscapes; offer a meaningful scope for regional exchanges in recreational/holiday activities and can be expected: to integrate the country further, while lowering' Our dependence on the external environment for recreation. While it is••&• truism that landscapes: are directly experienced by individuals,¹ information in-put and; interpretations also influence the context in which they are cognized, A programme of landscape images promotion is thus a vital force in any attempt to get residents and tourists to patronize and appreciate landscapes.' Such a programme would involve the commercial documentation of specific landscape images/features in the different regions.

Next is the issue of public participation in landscape planning and development. Although cognition-centred landscape research provides a forum for some kind of involvement, the value of more direct public participatory involvement in actual programmes of development, modification, and preservation must be stressed. Grassroots, communal, village environmental education and awareness programme is the most stimulating avenue to get people to cultivate useful habits, develop environmental care and positive consciousness towards their surrounding. Without such support, policies on environmental control are bound to fail, or will have limited impact (Chokor, 1988). Environment societies/pressure groups, conservation bodies/trusts are of added benefit as part of public in-put into planning, particularly when encouraged to focus on specific aspects of our landscapes, for example grassland, forests, rivers, mountains, shoreline, cities, villages, etc. As articulate and informed voices within the public, they can lobby for more effective landscape policies while committing resources to actual management. Appropriate public environmental awareness raised through such societies is indispensable in terms of promoting more useful and conscious public attitudes "towards deforestation, pollution, landscape scenery defacement, etc. In general, a body of environmentalists will enable the public to

develop a greater sense of belonging to an environment and the feeling, that they have a stake in its heritage, future and conservation.

Finally, the character of landscapes as witnessed in a country or social formation must be critically analyzed to highlight the interchange between social structure and landscapes. The present low concern for landscape quality/aesthetics in Nigeria, for example, smacks of public alienation, unfair representation in decision-making processes and limited access to opportunities. Adequate representation, and one that is fair, implies the provision of an equitable, just context for the masses to have a stake in the natural and economic resources of the country. When such a context is absent people would primarily be concerned about what they can get in a market, capitalist-oriented society. The jungle of unsightly structures that ramify our cities, for example, are symbol of limited access, and urbanities' quest to eke a living out of the unequal setting of society. In this respect, landscapes are the foci of potential or real resources imbued with economic intentions/significance. In a society characterized by high unemployment, underemployment and poverty, and whose human and natural resources are controlled by a few elites, there is little chance for deliberate, active interest in landscape preservation on the part of the people except when coerced to show such interest as the present Environmental Sanitation Task Force induced cleaning exercises clearly demonstrate. Human nature, class struggle and proletarian, argues Samuels (1978), are the forces that drive history and create landscapes out of nature. To re-orientate the values of Nigerians toward landscape appreciation and care (as it was before the colonial era), a just and humane economic context must first be provided to enable society to direct landscape transformation towards a common good. Such a context will fuel the financial resource and provide supporting interests to carry out landscape planning works

Conclusion

This paper has highlighted developments in environmental cognition and landscape research emphasizing the absence of substantive studies in Nigeria and outlining the lack of meaningful attention to protect and conserve our rich landscape heritage. Both the problem of blighted urban scenes and the depreciation of rural landscape through exploitation are issues which challenge our policy makers, planners, and academics, including geographers. With adequate financial support, institutional setup and massive public/equitable involvement, environmental cognition research represents an attractive avenue to discover landscapes that people value and identify with and plan for them in order to enhance their quality of life. Do we act now or do we delay action and transfer further environmental consequences and economic cost of reconstruction to generations yet unborn?

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