

**THE INTEGRATION OF LOCAL CULTURAL IDENTITY AND TRADITION INTO
BUILT ENVIRONMENT. A Case of Cultural Centre in Lobamba, Swaziland.**

By

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DECLARATION

Submitted in partial fulfillment of the requirements for the degree of Masters in Architecture, in the Graduate Programme in Architecture, University of Kwazulu-Natal, Durban, South Africa.

I hereby declare that this dissertation is my own unaided work. All citations, references and borrowed ideas have been duly acknowledged. It is here by submitted to the school of Architecture Town Planning and Housing in the Faculty of Humanities, Development and Social Science, University kwaZulu Natal, Durban, South Africa for the degree of Master in Architecture, and has not been submitted before in any degree or examination at any other University.

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ABSTRACT

The aim of this document is to explore the potential culture and tradition has in restoring and preserving local cultural identity through built environment. The need to create local cultural identity to built environments and to ensure that these are expressed in a progressive and dynamic way in order to expresses culture as a dynamic evolving organ, not a static dogma ensuring versatility and significance to all generations.

Most built environments do not consider the importance of culture and tradition hence such ignorance has resulted in the formation of spaces that lacks the identity of the society. The research will explore how culture, tradition and built environments may be integrated to create a meaningful environment in order to achieve environments that are an epitome and responds to the people's needs.

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INTRODUCTION

1.1 INTRODUCTION

1.1.1 Background

Swaziland is a country with a rich cultural back-ground yet it faces a major challenge of loss of identity from foreign influence. Thus in Swaziland most built environments tend to ignore the importance and significance of identity. The environments people live in no longer relate and support their lifestyles. Most cultural centers tend to mimic the past built forms a notion that results in repetition; ignoring the fact that the evolution of time has a direct impact on built forms, environments and the way people live. Built environments must accommodate change in order to become compatible to the cultural needs required by the society. Most environments no longer support cultural and social interaction where people may engage and exchange ideas and learn from one another.

According to the author's view the influence of western culture results in major family disintegration and breakdown, loss of identity and moral decay. The quest for modern and western developments result into multifarious complexities which create a self-centeredness, egocentric, and individualistic society, a major problem that threatens the Swazi culture and tradition which may result to a significant loss of identity.

In spite of loss of identity the major challenge remains; on how preservation of culture and tradition can be maintained through built environments, and the techniques that can be used to create environments that will ensure proper interpretation and preservation of culture? Culture remains an important aspect of any given society, as it entails a society's way of life, values and morals in a given space and time. Built form could be another means that can contribute immensely in the preservation of indigenous and cultural knowledge. The lack of facilities for cultural and traditional information makes it difficult to preserve indigenous knowledge which could be passed on to other generations and for the generations to know the importance of culture and identity. Unlike other countries that have policies which protect historical sites, Swaziland has not yet formulated such a policy hence a great loss of historical and heritage sites which result in the loss of

important material with regards to history. Built forms can contribute in housing indigenous and cultural information through artifacts and library resource and materials.

Built environment thus may provide a spatiotemporal framework for occasions and activities and remind people what these activities are; they only do that if they are legible, if the meaning is appropriate to the culture and its activities (Rapoport, 1978: 17). However there cannot be a proper presentation and interpretation of a culture without an environment through which all these can take place, these two are linked to each other and one cannot do without the other.

1.1.2 Motivation/Justification of the Study

- The decay of moral values caused by misunderstood western and modern influence results in family disintegration, divorces, high levels of HIV, dilapidation of moral ethics and values, and an irresponsible society with individualistic tendencies caused by the lack of education and places which encourage the dissemination of such knowledge.
- The need for facilities of indigenous knowledge that is easily accessible to the public which promote engagement and interaction amongst society and allows sharing of cultural knowledge through art exhibitions and historic archives.
- The non availability of a policy that protects both cultural and historical heritage.
- The need for art performance centers and facilities that will ensure participation and involvement for the younger generation.
- A facility that is inspired by the Swazi culture and is significant to the Swazi society. Built forms that reflect the identity of its people.
- The need to promote arts and culture through built environment.
- The need for the ministry of sports and culture offices.

- The need to stimulate tourism through indigenous preservation

1.2 DEFINATION OF THE PROBLEM, AIMS, AND OBJECTIVE

1.2.1 Definition of the Problem

It is in the author's view that most built environments do not support or bear cultural significance of the people they are built for. The general question asked is how can places be created to become more adaptable to the cultural needs of a society? What influence can they have in society?

Since the environment in which people live is modeled by people's beliefs and thought patterns, the spaces where people live must accommodate and reflect their lifestyles. The significance attached to the concept of spatial identity as the interrelation of cognitive processes, social activity, and formal attributes is one of the most important aspect of this research.

Culture and identity according to the author's view exist in a given society because of certain customs and traditions which all happen in spaces and time. A society becomes a society because of its social activities, social interactions, collective participation and engagement of a group of people with a common goal and background. Rapaport argues that the importance and vitality of open ended design in house permits occupiers to take an effective participation in the designs of their own homes (Abel, 1997: 140).

Societies can model environments and people can be changed by environments. The built environment can create psychological patterns which a society can be governed or controlled by. The patterns that govern the environment are behavioral and are both guided by schemata or templates which organize both people's lives and setting. Hence the organizations have commonalities which are subject to the study (Rapoport, 1977: 11)

This suggest that self built housing not only meets a pressing need for low cost shelter for the poor but equally important, it also provides opportunities to express personal and social identity which come from having control over one's own home and neighborhood.

1.2.2 Aims

The study aims to explore the potential of culture and tradition in restoring and preserving local cultural identity through built environment. This notion suggests that built environment, societies and people may be able to identify themselves and know the importance of their cultural values and be in a position to pass such knowledge to the future generations.

1.2.3 Objectives

- To highlight the importance of culture and tradition in the creation of built environments, and the impact built environments have towards the formation of identity of a society, a notion which suggest that the spaces and forms where people live must be an embodiment of human's needs an expression of the past, the present, and the future.
- To create a built environment that posses and express the identity of a given society in a more meaningful way.
- To explore methods and techniques through which a culture of a society and tradition may reflect itself through built form.
- To seek relevant ways through which indigenous knowledge, culture and tradition may be preserved in built environment.
- To create environments that bear society's needs and significance through built environment in a much more futuristic manner to avoid repetition of traditional

forms but seek new and innovative ways to achieve adaptability and versatility of form.

- Search for an architectural appropriateness on culturally supported environments, their meaning and representation.
- Explore ways in which cultural built forms can be articulated to give a timeless expression and meaning.
- It aims to discuss the quality of space, form, and the importance of symbolism in creating a built environment that expresses a particular society's culture.

1.3 SETTING OUT THE SCOPE

1.3.1 Delimitation of Research Problem

The topic explores ways in which culture and tradition can be integrated into built environment to inform local identity. Culture and identity is a broad subject, hence the topic seeks to express and address the issues and the role played by culture and tradition in creating contemporary built environment that a society may identify with. Integration of culture and tradition into the built form is imperative for the creation of identity and the study explores ways to create a contemporary environment which has meaning and can stimulate interest and inspiration whilst celebrating culture. However the topic will not deeply discuss multi-racial issues since it aims to focus on the preservation of local cultural content which may be used as a prototype by other societies.

1.3.2 Definition of terms.

- Form – refers to the shape, visual appearance, or three dimensional configuration of an object

- Accommodation – is the space demarcated for specific function or use.
- Context – is the surrounding environmental composition, the visual natural attributes of the site.
- Genius loci – the spirit of a place, that which gives a place essence and definition. The term denotes the specificity of a place.
- Symbolism – is the use of multiple symbols representing differentiated terms in a system which conveys meaning
- Organic architecture – is architecture that put emphasis to the recognition of its surrounding, the natural attributes of a site and all that which the site can offer. The idea of organic architecture refers not only to the buildings' literal relationship to the natural surroundings, but how the buildings' design is carefully thought of as if it were a unified organism

1.3.3 Stating the Assumptions

The assumption is that all built environments are a product of cultural and traditional processes. This notion suggests that built environments are a result of human behavioral patterns and the needs for human beings. Another assumption is that built environments influence the way humans live and do things and that they provide schemata for things and activity to occur.

1.3.4 Hypothesis

Culture and tradition could be instrumental in influencing the built environment in order to create local cultural identity. This entails that the forms and spaces people live in must be a summation of the past life expressed in the future.

1.3.5 Key Questions

- How does culture and tradition influence built environments?
- What role does culture and tradition play in the making of a society?
- How can culture be integrated into the built environment and what impacts do environments have on society?
- In what way can built form be used as a tool for learning and teaching culture.
- What is the appropriate interpretation of culture and tradition in built environment?
- What effective methods and techniques that can be used in the formation of sustainable environments and society?
- What nature of form and spatial organization will ensure a proper reflection of a particular culture?
- How do people engage with culture through form and space, and how do forms become adaptable through time yet constantly remaining true to their objective, which is to teach and conserve history without losing relevance to future. What methods and technologies can be used in order to ensure that architecture is inspired by culture?
- How can culture be celebrated through built form such that a timeless architecture with significance of society may be presented?

1.4 CONCEPTUAL FRAMEWORK

It is in the author's view that culture as a concept deals with the way people live, their behavioral patterns, beliefs, values and norms. Culture as a concept can be shared, integrated and is related to the way people live. Culture is not a static entity; it evolves with time and has a symbolical meaning through which man's identity is expressed. Since culture and traditions are a way of life, norms, values, and beliefs, therefore the study seeks to place cultural centers as sites that can achieve an architecture that is distinctive and significant and can capture the spirit of a place thus creating a sense of belonging.

It is therefore important that since culture is a core aspect of human beings, environments must be designed to cater for such human needs, beliefs, and lifestyles and must be able to stimulate, celebrate and reflect the identity of the society whose culture must be expressed. This notion suggests that built environments must achieve a level of cultural supportiveness, which can therefore enable environments to be adaptable, relevant and functional according to human need and requirements.

Cultural supportiveness requires that built environments must function in such a way that cultural requirements must be fulfilled in response to its demands. The concept of relativity and localness is of paramount importance; hence the desire for built environments to achieve specificity and receptiveness. In addition it is a process where emphasis is placed on the relationship between human and landscape, the historical background of the place, its context, climate and how all these are amalgamated to create a built form that has meaning and relevance to its context, site and people. In order to achieve this, built form must showcase the ability to reflect the identity of the people in a more progressive manner, the use local materials and allow its building to become one with the cultural aspect of the people and that of its context.

The concept of culture and relevancy suggests that the architecture must relate and be relevant to the needs and lifestyles of a society. Such a notion is against an architecture that is selfish, self inspired, egocentric attitude of architects or self imposed architecture

sometimes termed alien architecture; an architecture that neither responds to both the context and the needs of its users. It suggests that architecture must be coherent and meet human needs whilst reflecting a society's cultural attributes, Hence a project of this nature will require a high level of appropriateness and inevitably theories such as the 'Genius Loci' and Symbolism' are useful in creating culturally supportive environments. This may be used to generate the design for a cultural centre for the Swazi's. Since Swaziland is a place that has a very strong cultural background such a project must attain site specificity and capture the spirit and be able to capture the spirit of a place.

In order for such a built forms to be appropriate they must first and foremost relate and respond to their context, historical background and respond to the behavioral patterns of the Swazi society. However people relate and adapt to a specific environment when their cultural and social needs are met. In essence the buildings must become the epitome of the society's culture and tradition. The location, the landscape, the geological position, the history of the place and its people become pivotal in the designing of culturally inspired buildings and built environments. All these enable the building to become unique and suitable to its surrounding environment.

Abraham, Tadao Ando, and Norberg-Schulz suggest that architects must discover the genius loci, and design a place that accounts for its presence. In other words Norberg-Schulz *et. al.* call for man's intervention to intensify the natural attributes of the situation. Boundary and thresholds are constituent elements of place. Gregotti (in Nesbitt, 1996: 49) elevates place-making to the primal architectural act, the origin, laying a stone on the ground as the beginning of modifications that turn a place into architecture.

Nesbitt (1996: 49) states that the Genius locus is a Roman concept. According to ancient Roman belief every "independent" being has its genius, its guardian spirit. Nesbitt adds that this spirit gives life to the people and places, which accompanies them from birth to death and determines their character or essence; and he laments 'Even the Gods had their genius', a fact which illustrates the fundamental nature of the concept (*ibid*).

In short this suggests that built form must form part of the landscape in a way that the particular landscape cannot be imagined without the built form in place.

Tadao Ando states:

“You have to absorb what you see around you, what exists on the land, and then use that knowledge along with contemporary thinking to interpret what you see”. (<http://www.architect.architecture.php>)

The notion of ensuring that buildings complement the site in which they are built relates to the theories of critical regionalism and organic architecture. Critical regionalism tried to find a design to suit the identity and the potential of the site, the genius loci, but was not prepared to fall back to nostalgic preference of traditional architecture (D.J.M.van der Voordt, Herman B.R. Wegen (2005).

Their aim was to produce a form which would bring out whatever made the site different from all others. Yet on the other hand organic architecture becomes relevant and ideal to the project because of its nature and principles which are implemented in the relationship between form and function, and between force and construction. The idea was that forms were free and expressive not as imitation of nature, but support people as living and creative beings.

Frank Lloyd Wright's organic architecture took on a new meaning. *He stated that architecture is a reinterpretation of nature's principles, as they are filtered through the intellectual minds of men and women, who can then build forms that are more natural than nature itself.*

Architecture is not seen as an expression of culture and society but also as something that influences the inner and the outer lives of people. Human beings are perceived as physical, psychological and spiritual entities connected to their surroundings at all levels. It emphasizes respect for the properties of materials, the harmonious relationship between form and function of the building and the relationship between man and nature. Wright (ct in van der Voordt and van Wegen, 2005, 53) focused on the relationship between

buildings and their environments, the continuity between inner and outer space, the coherence of parts to the building as a whole, and the respect of building materials.

On other hand it is imperative that buildings of culture should reflect the identity of a particular society through symbolism. Symbolism carries meaning and interpretations, which the particular object or built form, can be identified with. Symbolism may both be visual and non-vocal analogies, but both these are aimed at reflecting and bearing the meaning of the past, the present, or the future.

The inclination to interpret other societies through the filters of classifications is no more special than their perception of the alien from the west through the filters of their own language categorization. Literally, symbols help to convey a certain meaning that can be read and understood by others easily.

To the sophisticated mind of the anthropologist, sociologist, administrator, architect or educationalist who may encounter the phenomena of indigenous attribution of meaning and significance to built structures, there is a powerful motivation to fit such experiences into classifications accorded within the philosophical constructs of his own tradition (Oliver, 1975: 8).

Although critics of this theory argue that the creation of architecture form was to be a logical process, free from images of the past experience, determined solely by program and structure. But still recent critics have questioned the possible level of content to be derived from abstract forms. Archigram group have turned, while similarly protesting, to Pop Art and the space industry. They argue that not only are forms not free from the forms of the past, and from the availability of these forms as typological models, but if we assume we are free, we have lost control over a very active sector of our imagination, and of our power to communicate with others (in Nesbitt, 1996: 312).

Literally, the translation is that symbols help to convey a physical meaning and understanding which can be read and understood by others easily than abstract forms

hence a society or people will own and relate better to the forms they understand that the individualistic impressions that architects of the day create in the obsession of competition and individualism is misleading.

1.5 RESEARCH METHODS AND MATERIALS

1.5.1 Research Methods

This section includes methods used in the exploration of culture through built environment and the collection of data. The data facilitates the process through which the study of cultural integration to environments may be achieved effectively. The study includes field work through some useful techniques used for data collection; which included physical observation, surveys, interviews and, questionnaires through relevant organization and members of the public. The study gives an understanding of the origins of the Swazi culture and its meaning. It will also establish the need for a cultural centre and its architectural significance. Such a synthesis responds to the need of architecture that bearer's identity and that transcends its era, yet fulfilling its intended purpose whilst portraying culture as a dynamic evolving organism for the preservation of culture through environments.

Primary Data

The primary data consisted of interviews with key personnel, organizations and architects through personal interviews, observation and questionnaires. The use of interviews established an argument and discussion on cultural and environmental issues regarding the designing of proper and meaningful environments. The importance of culture and identity through built form is a concept which is nonexistent in Swaziland so far hence the interviews and questionnaires facilitated the testing of the hypothesis with the aim of creating culturally viable environments. Interviews with relevant organizations and architects were carried out to ensure the viability through which this processes may be applied using the underpinning theoretical principles for such a study.

Interviews

Firstly, the data was carried out by consulting with the staff from the Swaziland National Museum (Umsamo Wesive), the King Sobhuza Memorial, Cultural Village, Swaziland Arts and Culture department. The aim was to ascertain the need and viability to create environments with cultural significance.

Secondly, the data collection was aimed at gathering people's perceptions on cultural formation and built environments that are inspired by culture, what their thoughts were with regards to the study in discussion and the need to create social integration through cultural centers.

Thirdly, the interviews were designed to evaluate whether such centers will have a positive or negative impact on the society in as far as identity is concerned and whether the facility will contribute meaningfully to the function for which it is intended.

The interviews revealed the need for culturally inspired buildings in Swaziland, buildings that manifest the identity of the local people. The research revealed that Swaziland lacks the use of culture to influence its architecture hence this has resulted in the selection some South Africa buildings as precedents and case study. The use of such a study has been to ensure appropriate articulation, interpretation and translation of culture and tradition into futurist architecture with meaning.

Questioners

The objective for the questionnaires was to elicit people's views on whether there is a need to preserve culture and traditions, and how best can this be achieved. The questionnaires were administered to the general public and relevant organizations and different age groups. This enabled an understanding of how effective culture needs to be expressed in environments and what typology of the built form best expresses culture and tradition in a more modern way which the society may identify with.

Secondary Data

The study includes secondary sources such as text books, magazines, journals, internet, archives, which validate and explore ways and principles through which authors and architects interpret and analyze the study of interest in order to create an appropriate architecture. The literature will provide clarity through a process of critical analysis and reference by examining a selection of projects with similar ideas. An accurate understanding and interpretation of the study facilitated the development of an argument and debate whilst enabling a proper meaningful design. This was achieved through the process of exploring examples, by which case studies and precedent studies became guiding factors through the process of ascertaining information.

The aim is to ascertain appropriate articulation of such centers and how effectively they can be used as preservation for indigenous knowledge. An analysis relevant literature was drawn, and the use of precedents and case studies was used to draw up a critical and comparative analysis. The selection of relevant precedent studies facilitated meaningful investigations on the individual elements that such centers require and the issues of relevancy include:

- The historical background of the project and the cultural significance of the place.
- The context on which the projects are built
- The character of the buildings its architectural language and theories used on the projects.
- The functional use and technology used.
- Their cultural supportiveness and symbolical meanings and interpretations
- The impact they have on the environments.

The selected precedents used to draw up the analysis include

- Kanaka Cultural Center
- Mpumalanga Provincial Government Complex
- Legislature for the Northern Cape Provincial Government
- The Cradle of Human Kind Maropeng

1.5.2 Research Materials

Research materials included the use of notebook and camera to carry out the required surveys. Text books and archives were used to facilitate the process of acquiring information. A pretest to ensure the validity of the information and the sources was made to ensure that all the information used was of certainty and worth to be documented for this study. The aim of the data collection is to acquire principles and methods to ensure appropriate formation of cultural centers.

1.6 Conclusion

The whole process of data collection is aimed at ensuring architecture and built environments that are culturally viable and relevant to the times and the needs of a society in this case the Swazi people. The process through which these ideas are collected hence the, literature, case study, precedent studies all aim to find ways in which architecture of relevance may be achieved and used as a tool to restore and preserve a culture of a society whilst observing and mastering the architectural and environmental principles. An idea of using the past as a blue print is point of reference to inform the future.

CHAPTER TWO

LINKAGE BETWEEN BUILT ENVIRONMENT AND CULTURE

CHAPTER 2.0

2.1 LINKAGE BETWEEN BUILT ENVIRONMENT AND CULTURE

2.1.1 Introduction

The amalgamation of culture and tradition to built environment in a more progressive manner always remains a challenge that architects of today are constantly faced with. Cultural identity and tradition remains a pivotal subject in informing the built environment. The two are interrelated; one cannot function without the other. The shaping of built environment requires a collective input from both people's behavioral change and the spaces for their behaviors to occur. The idea that culture and environments are interrelated suggests the importance of culture in informing and shaping of spaces people live in. This chapter explores ways in which culture can be used as a catalyst to influence the built environments in order to create a sustainable environment, one that identifies with its society. Louis Khan (ct in Pran 1998: 7) states that:

"In the start lies the seed for all things that must follow. To forget history therefore does not imply that we should not learn from it, but that we should avoid being dependent on stylistic preconceptions and models. Thus it illustrates the embodiment of principles, a world that in fact means "beginning"

2.1.2 The fusion of culture to built environments.

Rapoport (1977: 2) suggests that environments can be understood and interpreted and even with sensory modalities and are all affected by groups with particular values, beliefs and ways of understanding the world. He adds that people's membership in small groups, families, large social groups, subcultures, and cultures, the way in which they communicate, social networks, kinship systems, values and the many other characteristics of humans influences the form of the environment.

The idea that physical environments are determined by human behavior, and that they provide possibilities and constraints within which people make choices, mainly cultural, remains questionable. The current view is that built environment can be seen as a setting for human activities, and such settings may inhibit or facilitate to the extent of acting as a catalyst or releasing latent behavior but cannot determine or generate activity. This reduced competence may be cultural as well as physical, so that groups undergoing very rapid change or groups whose culture is marginal may be affected by inappropriate forms of the built environment (Rapoport, 1977: 3).

It is therefore important to note that environments may be built in such a way that they become responsive to activities of certain groups or societies. It is therefore important to note that environments be built in a way that they become responsive to activities, needs and demands of people. The picture on (Fig.1) shows a typical example where the activity which could be meeting place the organizing structure of the environment in this case the picture suggests that the place is used as a meeting place. The gathering space is in a circular setting with a sitting position in the centre; the activity could be a ritual, or meeting. But the essence is that the activity organizes the environment

Fig 1 shows an environment where activity becomes the organising structure in an environment



(Source: Unknown)

It is imperative that built environments respond to the needs and activities of people in order for them to fully achieve the desired function for which they are designed for and that a right level of appropriateness is achieved, manifesting fully the identity of that particular society. Inevitably it must be understood that built environments simultaneously become spaces for activities to occur, and that activity whether culturally or otherwise becomes the main generator to the formation of built environment. In order to fully comprehend the influence culture has on built environment it is of paramount importance to first understand the meaning of culture, identity, tradition and how they relate to built environment.

Culturally inspired spaces require an understanding, the people's needs for the particular space and creating spaces that respond and fulfill the requirements of the people be it religious, rituals or otherwise. In such instances the activity becomes vital in organizing spaces that bear the attributes of such activities. Factors like weather, climate, materials and methods of construction plays major role in the creation of built environments.

2.1.3 Culture as a catalyst towards environmental identity.

Rapoport (1980: 9) suggests three general views of culture. He defines the first one as a way of life typical to a group, the second as a system of symbols, meanings, and cognitive schemata transmitted through symbolic codes and the third as a set of adaptive strategies for survival related to ecology and resource.

Geertz, and Weber, argues that culture to involve meaning. Thus a community can be referred to by its culture, its pattern, expressive aspects, and its symbol that represents and guides the thinking (Griswold, 1994: 11).

While on the other hand culture refers to the norms, values, beliefs, ethos, that a given society lives and is guided by which when practiced for generations then becomes a tradition. Culture entails the lifestyle of a society that which evokes certain human behavior, response and actions. Njoh (2006: 16) states that culture is the governing

factors, the principles that direct people's intention to do and behave the way they do. It is the embodiment of morals causing a society to respond in a specific way.

Richard Peterson' (cf, 1979), observes culture as usually meaning one of four things; norms, values, beliefs, or expressive symbols. Griswold (1994: 3) suggests that norms are a way in which people behave in a given society, values are what they hold dear, beliefs are how they think the universe operates, and expressive symbols are representation of social norms.

This suggests that culture is variable, designed environment respond to variable definitions of needs and priorities expressed in varying schemata. Both environments and lifestyles are shaped by cultural templates.

Built environments are thus intimately related to the images and schemata of groups, which is made evident by rather remarkable fact that recognizable cultural landscapes emerge from the individual decisions of innumerable individuals (Rapoport, 1980: 8).

There are two aspects to be greatly considered in dealing with this complex topic one is 'environmental design research' which must be cross-cultural and historical, and that; in order to understand man's environment interactions one must go beyond material aspects of environment, the nature of culture of environment and their relationship must be of paramount importance.

The places where people or society live in should be defined by what they believe in or value. Architects of the day must seek to reveal meaning through spaces that reflect people's identity.

Day (2002: 10) suggests how form and space of our surrounding can invigorate or debilitate. Likewise, the principle underlying life manifest in every living thing and how we can employ these to enliven human environment. The moods induced by our surroundings, if matched to circumstances, can nourish, balance and heal. This opens up

a whole palette of sensory qualities, color and social health. To alter the spirit that underlies these messages is very much within our power (Day 2002: 10).

Cultural rules can be conceptualized as a cognitive or structural “map” of the physical environment that determines the appropriateness of spatial relationships and the acceptance of built form. They might also be seen as sets of contextual, mental attitudes that define socio-cultural boundaries. An approach that decodes the built environment by uncovering cultural rules produces a more adaptable set of architectural principles for design.

Low (1989: 90) points out that the relationship between domains; expresses the administrative, cultural, judicial, and socio-political rights of inhabitants, neighbors, visitors and strangers. Bourdieu (1977: 28) discusses how the personalization of dwelling units varies with respect to economic, social, cultural and political factors that impinge upon the lifestyle of residents. It is therefore needless to say that the design, meaning, and the use of buildings are ultimately related to a range of cultural, socio-demographic, and psychological dimensions, and that the reciprocal relations between these dimensions ought to be studied in terms of a historical perspective (Low, 198: 91).

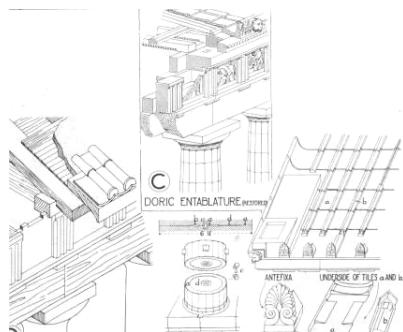
In short culture refers to the expressive side of human life and behavior, objects, and ideas that can be seen to express, to stand for something else. Hence community in terms of its culture is the pattern of meanings, its enduring expressive aspects, its symbols that represent and guide the thinking, feeling, and behavior of its members. Culture is a pattern of meanings passed down over time. Therefore culture will influence the environment through the people’s beliefs as to what should be done, where, how and why? Culture has diverse attributes some of which are spiritual; a society will create spaces that will support their beliefs, lifestyle, rituals, and those that possess a certain symbolic meaning. The ritual aspect of such environments makes it convenient for them to perform certain ritual activities and cultural ceremonies. Cultural supportive environments usually possess certain symbolic meanings and interpretation that supersede climatic response; they usually incline themselves more to the spiritual aspect

and the nonverbal representation such as death, life, etc. Such elements in an environment may be expressed through form, spatial organization or the society's settlement. The ability for the built environment to express and accommodate cultural activity denotes the cultural influence for that particular society.

2.1.4 Cultural dynamics, identity and tradition, its significance to built form

The concept of identity dates back in the 1600 BC in ancient Greece where the classical period was introduced (Fletcher, 1987: 101). According to Fletcher it was the Greek in the context of the politics of control used architectural elements to represent the identity of groups occupying a piece of land. He illustrates that for example the Doric, Ironic, and the Corinthian were not abstract decorative terms but were a symbol of identity dedicated to the colonizing God Apollo by using capital motifs, a griddle of hanging leaves, and lotus flowers and buds around his neck, whose origin was from their mother city. Fig. 2 shows ancient capitol significance of power and order.

Fig. 2- Illustrating a symbol of identity



(Source- Fletcher, 1987: 102)

The dynamic mentality of Greeks enabled such constructions, consolidations, recombinations, and fusions of identity by region of origin using architecture if, where and needed (Tzonis, 1945: 11).

On the other hand identity refers to the significance of one's individualistic impression, his uniqueness, and character. Culture, as a social practice, is not something that individuals possess. Rather, it is a social process in which individuals participate, in the context of changing historical conditions. As an "historical reservoir", culture is an important factor in shaping identity (www.thefreedictionary.com).

The early eighteenth century picturesque regionalism stressed spatial strategies to identify an ethnic group while the late eighteen century laid emphasis on characteristics of a group related to time having common ancestors and shared origins. In this respect memory plays a significant role and the importance of artefact rests in their capacity to be custodians as well as stimulation of memory and as a result maintain the identity of a group, the ethos, its right of existence, and its autonomy as a nation (Tzonis, 1945: 47).

Identity is not only expressed through form and paintings but it is the epitome of cultural believes motifs, events and origins by which a society attains its significance and reason for being. It is important to note that identity is that which people or a society can be identified by and which can be expressed in different forms e.g. through art, paintings and form. Hence identity becomes a symbol and meaning of the past.

2.1.5 Tradition as a tool to foster a timeless architecture

Njoh (2006: 15) describes tradition as having roots from the Latin word 'traditio' meaning to hand down. He adds that the term 'tradition' connotes customs, beliefs and opinions that have been handed down from generation to generation.

Kwame Gyekye (cf1997) defines tradition to include the values, practices, outlooks, and institutions that one generation within any given society which inherits it from the generations that preceded it. He further tries to distinguish between the terms tradition and culture. Njoh (2006: 16) sees tradition as comprising a set of cultural practices that have survived through several generations.

George McLean sees tradition as the development of values and virtues and their integration as a culture of any depth or richness takes time and, hence, depends upon the experience and creativity of many generations. As such it reflects the cumulative achievement of a people in discovering, mirroring and transmitting the meaning of life (McLean, 1994: 9).

Njoh (2006: 16) argues that theories incriminating culture and tradition as a cause of socio-economic underdevelopment in Africa usually make two major implications. He also suggests that it is first the customs, beliefs, socio-political institutions, economic systems and technology that Africans have inherited from their ancestors that are antithetical to contemporary socio-economic development aspirations and the other is cynical and goes something like past Africans created nothing of value and therefore bequeathed the present generation with no sound foundation for socio-economic development.

Njoh (2006: 18) points out that tradition has less to do with under development as the Western society would put it in trying to degrade the African way of doing things, their cultural ethics and beliefs. Sorenson (2003: 79) however suggests that traditional societies tend to place a lot of emphasis on the kinsman and extended families more than individual success, and little or no emphasis on sophisticated technology and the acquisition of material wealth.

Richard Huch's definition of tradition implies that tradition is not concerned with an undiscerning agglomeration of the whole global heritage of past times, but with the careful selection of the best, and the most beautiful and the most effective of mankind's achievements throughout history. Tradition in real sense is not a rigid dogma, but a living organic ecological project. It has nothing to do with obscurantist practices, reactionary customs and irrational revivalism. Tradition is always new, young, fresh, not a defense of the old, the ancient or the antique. She regards tradition as the antithesis of inventiveness, the very foundation of invention. Steil, (1987: 6) refers to it is the permanent embodiment of invention, discovery and perfection.

Tradition must not be misunderstood as a static historical legacy neither should it be seen as a project for the dynamic re-interpretation of the past. The word tradition is a Latin word meaning continuity and permanence. Therefore traditional architecture is not concerned with historical style but with historical principles, cultural integrity, and with the preservation, perfection, and reconstruction of beautiful, solid, comfortable and durable ‘Patria. Part of the fundamental principles of tradition includes the use of natural materials and ecological approach to natural resource, appropriate use of materials in regards to their natural properties, qualities, and limitations, respect for local context, in terms of materials, craftsmanship and architectural culture (Steil, 1987: 6).

Lewis Mumford, de Silva rejected the idea of using traditional building materials, methods and ornaments just for the sake of continuity when these were dysfunctional. She implores that an architect she does not believe in copying the architecture of an era that is long past, but believes in building to suit our living needs in a living way, utilizing the most suitable modern and progressive means at our disposal, and adopting these sound fundamental principles of buildings of the past which are as authentic today as before. (Lefaivre and Tzonis, 1945: 47) suggest that it is perhaps best to fuse the local and global to synthesis the modern and the traditional but without eclecticism.

This notion suggest that a literal translation of form in architecture without understanding the underlying design principles is void of meaning no matter how beautiful that architecture may be. Secondly it is the ability for architects to comprehend the past or origins in order for them to seek to present ways which are more adaptable to the present times and the future avoiding repetition whilst ensuring an architecture that is meaningful and has continuity.

Community and social needs should be of paramount importance in the design generation. The idea of using circles, reeds, stones and stills as reflections of culture and past in building is ludicrous and a misappropriation of regional expression in environments. Meaning remains the most important factor in deriving methods that fulfill

the intended purpose yet maintaining the standard of a globalised society. Tradition remains as the informants of the present and the future. Traditional forms were a response to human needs and the typology of buildings was responding directly to the lifestyles of the people, the climatic conditions of the particular environment, and the availability of materials. This notion is against that, what is tradition is the past and cannot be used to inform the present.

2.1.6 The formation of built environments

It is important to understand what constitute environment in order to give a clear definition of built environment. When considering built environment, the relationships are primarily spatial objects and people's reference. But when environments are designed four elements are being organized, space, meaning, communication and time (Rapoport, 1980: 11).

Built environment makes ideas visible signify power or status, express and support cosmological schemata, encode value systems, they separate domains, differentiate between here and there, private and public, and provide a physical distinction among places and settings not only express the various purposes they serve: they also communicate appropriate behaviour. Built environments provide a spatiotemporal framework for occasions and activities, and remind people what these activities are (Rapoport, 1980: 17)

Fig 3 shows a space where the environment creates opportunity for activity.



(Source: Unknown)

According to Rapoport (1978: 17) built environment makes ideas visible, signify power status, express and support cosmological schemata encode value systems, they separate domains, differentiate between here/there, men/women, private/public, inhabitable/habitable, sacred/profane, front/back, and so on. He adds that the physical distinction among places and setting not only express the various purposes they serve, they also communicate appropriate behaviour. Hence built environments thus provide a spatiotemporal framework for occasions and activities and remind people what these activities are. They only do all these things if they are legible, i.e. if the meaning is appropriate to the culture and its activities (*ibid*).

On the other hand Rapoport (1980: 11) stress that environment can be seen as a series of relationships between things and things, people and things, and people and people. These relationships have a pattern and structure. Rapoport argues that the environment is not a random assemblage of behaviours and beliefs. Both the adds are guided by schemata or templates, as it were, which organizes both people's lives and the setting of these. Hence patterns and organization have commonalities which are subject matter of our topic.

The fact that people act and behave differently in different setting suggest the importance of appropriateness of built environment which provides cues for behaviour and that the environment can, therefore, be seen as a form of nonverbal communication (Rapoport, 1977: 3).

Furthermore designing environments can be seen as organizing spaces for different purposes according to different rules which reflect activities, values and the purpose of individuals or groups doing the organising (Rapoport, 1980: 11)

This notion suggests that the relationship between culture and environments can be achieved by using activities as the spatial organising factor. On the other hand this means that environments create space for things to interact and allow certain activities to occur. Environments are modelled by cultural values, meaning and activity.

The notion of using space as organising elements implies the fact that activity is the generator of space, values can be expressed through space, and space also reflects ideal images of a given society. The environment allows the interaction of things and people, people and people to interact etc. Time becomes important in the formation of environment since people live in time and activities and people change with time. Hence the design and built environment can be influenced by human's behavioural change through time. Communication becomes another important element, according to Rapoport (1982: 180) suggest that who does what and with whom, under which conditions, how, when, where, and in what context and situation is an important way in which communication and the built environment are related. Furthermore meaning allows communicative properties, often expressed through signs, materials, colours, form, sizes, furnishings, landscaping, maintenance etc (ibid).

2.1.7 Symbols and environments

Grabar (1979: 14) states that:

“Symbols become the validity of experience and usefulness of the past memories for the future; hence a symbol of the present is the sign of the past, because it is the end product of an evolved system of knowledge and beliefs. It becomes an expression of specific circumstances and human psyche. A symbolic meaning therefore may be attached to a given form but it does not come from the source. The meaning is derived from human necessities that may be cultural, functional or economic”

Symbols in the formation of environment become vital in the fact that it decodes information and carries meaning and beliefs of a given society. They become expressive of a culture and identity, for many cultures these are signs that carry meaning, motifs and are expressed in certain ways. Symbols in a cultural context give a visual understanding of a society's beliefs and values and present them in a formal or ambiguous manner through built form. Kuban (1979: 81) argues that:

“Instead of seeking a universal mechanism from object to sign, from sign to symbols, I find it more practical to study the reactions of the members of a given society to their traditional environment. I do not doubt that symbols values exist, but are a product of an evolved system of knowledge and beliefs. The symbolic of the present is also a sign of the past.

According to Fathy (1979: 82) a symbol is a form that expresses a man's natural phenomena. In short this was part of the way of revealing or observing nature and giving it names and so on to define being.

While on the other hand signs and symbols must have verbal synonyms or their existence cannot be proven. The challenge that today's environments and buildings face is how symbolism can be reconciled with the modern international architectural forms which introduce their own symbolism of technology? The built environment in its totality is also

symbolic of a certain way of life, but these symbols act in different ways (Grabar, 1979: 14).

Kuban (1997:82) refers to symbols as universal mechanism from objects to sign, and finds it more practical to understand members of a given society to their traditional environment. He sees symbolism as a product of evolving systems of knowledge and beliefs.

Njoh (2006: 178) suggest that in an African context each and every member of the building symbolize something, for example as one walks into a traditional house, one finds stones that are used for grinding grain, such as millet, etc. Njoh argues that the stones are called the house's teeth, particularly because they function as ancestors that chew the grain into flour or other food products. The lintel top is known as the tongue, whilst the door frame is known as the lips. All the different parts of a building are signifies something (*ibid*).

To further explain how form can be expressed as a cultural symbol, the Dongson culture best express such a notion. The Dongson culture in South Asia uses a boat as a symbol of expression. Fig. 4 is an illustration of how the Dongon tribe articulated form symbolizing the ship which signified an important role in their culture.

Fig. 4- Illustrates a form symbolic interpretation of a ship house form of the Dongon Tribe



(Source- Oliver, 1997: 108)

The Dongons community believed that the souls of their dead travelled back across the sea safely to the land of their ancestors where they originated from. Even their dead were laid in finery houses designed to look like boats. Even their spatial organization seem to have been influenced by the boat symbol, the form takes the metaphor of a boat. Fig. 5 illustrates the Dongon's spatial organization in a boat patter.

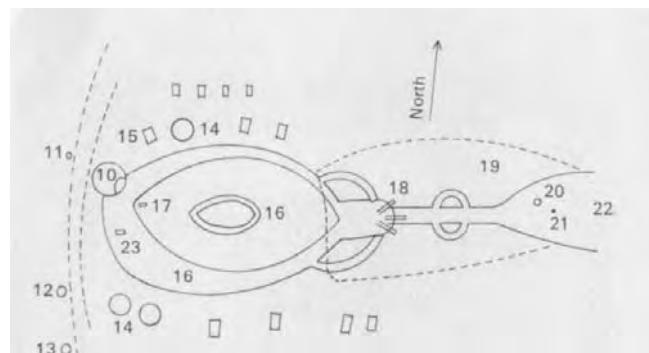
**Fig. 5- Illustrates the spatial organization for the Dongon Tribe
Taking a metaphor of a ship**



(Source- Oliver, 1997:110)

The boat as a shelter implies a very tight social organization, as on a ship. The symbol is not mere a visual analogy, but is integral with the very concept of the village and the dwelling. Fig. 6 illustrates the settlement pattern inspired by the ship.

Fig. 6- Illustrates the Dongon Tribe settlement symbolical of a ship.



(Source- Oliver, 1997: 113)

The people of these communities do not build symbols; they build houses according to an inviolable tradition of which symbolism is the generator and the essence. Oliver (1975: 116) notes that sometimes symbolism may no longer be understood but the tight social cultural organization will continue giving expression to its forms.

Shelter can be symbolized and be made more important in the process. As well as physical shelter, the symbol may provide psychological shelter. Therefore there remains a very intimate relationship between shelter and symbol. Symbolic relationships between sea and land, man and community, the individual and ancestors, death and perpetuation of life and so on, are given expressions in building form, meeting places and even in the layouts of villages. Ordinary shelter has been used to express spiritual ideas (Oliver, 1975: 116).

Symbolism gives a certain specific meaning in architecture; it reveals that which the building or environment is all about, it tells a story. Culture and tradition is rich in symbols bare different meanings and interpretations to diverse societies. Symbols in buildings or in an environment may be presented in visual forms or aesthetic artworks or objects or nonverbal analogues. In order to recognize and acknowledge ones culture contemporary buildings should reflect and be symbolical to the society's culture and tradition.

Having explored diverse interpretations on symbolism in architecture, it is therefore needless to say that symbolism is the essence of existence or an expression for existence, while on the other hand it must be known that symbols evolves with time, since a sign remains a symbol of the past in the present this notion suggest that the effects of symbols are timeless unless they are a representation of non important meaning. Secondly symbols will have different meanings according to individualistic interpretations except when they are of a common interest. It is true that culture may be the accurate system through which symbolism may be of significance. Hence this notion suggests that symbolism may be achieved by first understanding its meaning from the past and its

representation to the future. These analogies may be best expressed through the provision of symbolic spaces, form and aesthetic which in turn communicate or tell a story of the past to the present and which somehow act as a preservation means of the past, culture, tradition and identity through which endogenous knowledge is attained and celebrated.

2.1.8 Art as a cultural expression

Art remains an important aspect of culture, it is perceived as a cultural expression. Arts and culture are interrelated. Most artifacts are portrayed as symbolic means of communication hence the idea of using art to communicate has since been very effective in the formation of built environments.

Through art people express themselves in diverse ways and through art people can detect the times and the events that took place hence art becomes a means of storytelling. Since art can be a means of expression hence art and architecture become correlated in the formation of objects and forms with meaning and the search of form is of great cultural significance and meaning.

Eliel Saarinen (1948: 5) considers art as a plant that grows from its seed. He further argues that the characteristics of it lie concealed in the potential power of the seed. The soil gives it strength to grow while the outer influences decide its shape in the environment.

Day (1990:31) states that:

“Arts whether painting, architecture, even cooking or gardening are involved with raising material matter. In this sense art is the imbuing of matter with spirit, and it is this spirit that the user unconsciously experience and that has a healing influence”

Fig. 7 Illustrates a tree diagram

Fig. 7- Illustrates an archetypal idea responding to the locally individual influences of environment active through both place and time.



(Source- Day, 1997, 33)

Day (1990: 32) further suggest that all of us from time to time experience boredom, insecurities and loneliness or stress, hence the state of mind constantly need something outside ourselves to provide a balance. Therefore where our environment can offer intriguing interest and activity, timeless durability and a sense of roots, connection with the natural world and its renewing rhythms, sociable and relaxing places and harmony, tranquility and quiet soothing spaciousness, it can provide soul support the first step to recovery.

Hence art has the ability to offer such creativity that stimulate excitement and interest which enables and create built environments that are interesting and enlightening. Art serves to clarify our feelings. Until we express our emotions we do not know what they are and how we really feel. The artist's vision both analytic and panoramic makes perceptible at once the parts and the whole. Hayman (1969: 25) argues that the work of art sums up and reflects the discoveries the artist has made about his environment and about himself.

Self expression, as manifested in art, distinguishes individuals as well as cultures. For the purpose of communication men have invented symbols and this symbol making function is one of man's primary activities. The visual and musical arts offer man a means of communication that goes even beyond the scope of words. Art may be used as interpretation, reformation, enhancement, order and as integration (Hayman, 1969, 25).

It is needless to say the ingenuity of art lies in the ability to be creative, innovative and in the ability to passive and express one's self. Nervi (1969: 61) highlights that architecture has been defined as "the art and science of constructing a building in terms of durability, beauty, and economic to fulfill the specific functions for which they are intended. He further discusses that an architectural work has meaning and can be assessed, discussed and examined; only when it becomes a real building and can be judged in terms of functional adequacy, solidity, durability economic justification and true aesthetic effect.

The actual requirement in architecture is that buildings must fulfill the function they are intended for and that they must outlast the fashions in which they were conceived and which were once discarded, will become intolerable. There is greater responsibility on architecture than on the other arts, a responsibility to which all its practitioners must be profoundly sensitive (Nervi, 1969: 68).

Art as means for expression may be used to communicate or symbolize something. In as much as art allows architects to unleash their creativity in a much more creative and innovative abstract way the need for functionality remains a priority in the formation of buildings. The need for an architecture that responds to human need and the needs of their environments remains the most important requirement.

Art creates opportunities for dynamic architecture to display a timeless aspect of architecture. This notion suggests that built form must not be a repetition of the past historic forms but must be designed such that they project a futuristic image which is relevant to the technologies and methods of the times, unflashing the aspect of adaptability and versatility whilst meeting the demands of basic human's needs. Art challenges the

idea that what is considered tradition is stale and static and cannot be used to inform the present a complete misinterpretation. Tradition is an embodiment of the fresh, the new, having been tried, tested and approved, relied upon for the use to inform generations. Therefore tradition was the start and the beginning of something that evolves yet still expressing progression to meet the society's relevant needs. Therefore tradition should not be regarded as the past but an organism discovered in the past expressed in the present to inform the future. Therefore today's image of built form should inspired by tradition whilst must able to liberate, inspire and meet human's needs.

Over the years the evolution of architectural presentations has allowed architects to go beyond the norm and the common, and has allowed architects to evoke and provoke their thinking process in ways that will challenge their profession. Art has allowed creativity that transcends the limitations of time and seek for an architecture that outlives the time whilst still maintaining meaning. Such works include the works of Santiago Calatrava, Frank Gary, Eric Moss, Antonio Gaurdi, Zaha Hadid, Daniel Lebinskind and many more whose work face a lot of criticisms yet they leave impressions and become pieces of art. The projects on Fig 8-11 illustrate art as an expression of futuristic and timeless forms. Some of which derives themselves from a metaphoric representation expressed n built form.

Fig. 8- Guggenheim Bilbao by Frank Gary



(Source- <http://www.pixelmap.com>)

Fig. 9- Planetarium of Valencia, Science Centre. by Santiago Calatrava



(Source- <http://www.brianmicklethwait.com>)

Fig. 10- Dubai Opera House by Zaha Hadid



(Source- <http://www.designboom.com>)

Fig. 11- Guggenheim Hermitage Museum by Zaha Hadid



(Source- <http://www.stashpocketfiles.wordpress.com>)

Most of such works have turned to be landmarks, iconic, sculptural, monumental and symbolic, buildings that are not bound by the past. This allows architects to come to that level where the artistic impression and meaning come together to create something with progression whilst having meaning mainly of the intended purpose for that particular building in order to avoid replication and repetition of the already existing.

Even so it must be acknowledged that function must take the lead in the designing and shaping of environments, and it must be acknowledged that form and function are one just as Frank Lloyd Wright suggested. Indeed architecture is only considered on the basis of functionality without artistic or aesthetic impression then architecture an aspect of art yet art is in a way expression of culture and art tells a story of how people live.

This also allows and enables buildings that will remain true to their function and past whilst being adaptable to the evolution of time a notion that architecture is and that culture is not a static dogma while the principles and the fundamental objective is that they fulfill their function.

CHAPTER THREE

**THE FORMATION OF CULTURAL CENTRES AND THEIR IMPACT ON
BUILT ENVIRONMENT**

3.1.1 Cultural meaning and spatial formation

The demand for cultural centres outweighs the supply of centres of culture. The demand for conservation and restoration of indigenous knowledge remain a great need for any society, to understand its values and significance of their existence, both for the past, the present and the future. From ancient history 17th century the idea of using built environment for activities of significance and meaning to diverse societies has been a common trend through generations, hence the need to be accommodative of such activities remains as important as it was then. A good example is that of the Greek and the Roman temple and spa baths, where in as much as built form was important but did not surpass the activity, the culture of social integration and interaction. Spa baths were places where people met politician, and people of high academic status, markets as a result of foreign exchange were places of economic boost a pure example to show that a need in a particular space and time will demand environmental response. Fig. 12 illustrates how activity may influence the spaces and the environment of a society.

Fig. 12- An illustration of a spa baths



(Source- Fletcher, 1987: 258)

Cultural centres impact the built environment because of the need for space to facilitate activities which identify with people's needs and some of which are significant to a

society. These needs for activities and events will simultaneously create a certain kind of environment be it physically or socially.

Cultural centres become ideal facilities in accommodating more than one activity with the aim to respond to diverse people's needs whilst preserving certain cultural values. Such centres instil the culture of togetherness, association and sharing which are key aspects in the making of a society. These centres then create platform not only for social integration but sharing of indigenous knowledge to future generations, and will facilitate unity and identity. Such centres have the ability to unite, teach, preserve, and inform thus the multi-function aspect creates a vibrant mode and act as a pull factor for masses. It is then vital that the articulation of the spaces are such that people can easily identify with and that the facility posses cultural expression which will have impact not only on the environment itself but to the society.

3.1.2 Responsive Architecture

Dwelling denotes the total man, place relationship. It is useful to return to the distinction between "space" and "character". The two psychological functions involve "orientation and identification. This suggest that the way in which space is articulated will subconsciously denote different feelings and interpretations to different individuals causing them to behave in a certain way in response to that particular space or environment, thereby in due time creating a certain character.

Nesbitt (1996: 423) suggest that to get existential foothold man has to be able to orientate himself, where he is but also be able to identify himself with the environment that is, he has to know how he is in a place.

The subject of relativity and relevancy is dynamic and requires appropriate interpretation. It is important to note that the range and texture of materials alone does not define a society's culture. For instance straws, grass, stone has less to do with the definition of a society though they may define region, yet it may be misinforming to think that natural

material produce an afro centric image because natural materials are everywhere. The misappropriation and misunderstanding is as a result of failure to investigate and research on the motifs, beliefs, and fully understanding of a society. Thus such an error renders mundane and misinformed of form and spatial interpretations without relevancy and significance and architecture without meaning yet perceived to be meaningful. This notion suggests that meaningful architecture is more than aesthetic expression and the idea that natural material defines a certain ethnic group or society is deceiving.

Therefore a human beings character becomes a product of a man's environment. The character results to humans' behavioural patterns which in turn becomes his identity. This therefore suggest the importance and delicateness required when dealing with mainly interior spaces, and the influence finishes has on a human being. Such factors as color, materials, light and the size of a room becomes major factors in impacting a human beings behavioral patterns.

People feel differently under certain conditions, people feel uplifted and refreshed in places with bright colors than dull colors. Bright colors are considered to be good for emotional and physiological healing hence the use of color becomes important to define spaces and to cause emotional therapy. Light on the other hand plays a major role in the human body temperature and productivity rate. If a class room is dark, the production rate for the people will not become as productive as they would in a class with enough light hence there is different levels of production.

3.1.3 Culturally appropriate environments

People read and respond to space and spatial arrangements in culturally appropriate ways, using cues from the past, the present and their perception for the future. From the designer's point of view, the interpretative process draws on social, cognitive, and symbolic information to create a design which emerges from cultural setting but also adds a personal sense of artistic style to the cultural form (Low, 1985: 301).

Culturally appropriate design is not simply a matter of drawing on our work knowledge of the traditional; it also requires sensitivity to social and cultural change and the generation of new form and design theory. The argument is that the culturally appropriate design of housing must begin with an appreciation of the larger urban environment (Low, 1985: 302).

Culture is not static; it is represented by a process into which various interpretations might be offered, negotiated, and realized. Designs that will have a positive impact on the environments will require a futuristic resolution whilst themselves being informed by the past. Cultural change will have a direct influence on the way viable and living environment are presented.

3.1.4 Context and Site Specificity

Context renders major contribution toward the shaping of built environment since such environments takes place on a landscape. An undeveloped landscape is a virgin land that offers honesty by its own presentation. The challenge is that an undeveloped land requires more consideration and attention, the decision where to build or not to build remain a crucial factor in the building and making of environment. The intention to build must be to add value and honesty to the environment. A context then offers its own attributes that demand an appropriate response and articulation in the process of building the environment. Culture happens in an environment or context, in order to create a space proper response must be adhered to for the environment to be presented in an appropriate manner.

Context offers its own attributes which include the type of earth, rocks, grass, weather, and terrain. Built environments must be able to embrace the qualities of a given context in order for them not to only achieve aesthetic beauty but that coherence and continuity is attained through right appropriation of built form. The proper articulation of built form is one that acknowledges its context either by form or making and one that complements rather than contrast with its surrounding. Tadao Ando state, “You have to absorb what

you see around you, what exist on the land, and then use that knowledge along with contemporary thinking to interpret what you see (www.ando.com).

3.1.5 Siting

Rapoport suggest that an attitude of respect and reverence for the site means that one does not browbeat or rape it but works with the site. Buildings must fit into the landscape and express this attitude through choice of sitting, materials, and forms. These forms not only satisfy cultural, symbolic, and utilitarian requirements, but often are so much a part of the site that it cannot be imagined without the dwelling, village, or town. Such qualities also reflect the presence of shared goals and values, a clear and agreed on purpose. The unity of plan, site, and materials in traditional villages generate an enthusiastic response even in the most lay observe (Rapoport, 1967: 77).

A proper understanding of the context will enable one to respond in the right manner towards methods of construction, and the choice of materials to be used and in creating a sustainable environment, one that identifies with its surroundings. The idea of context creates a sense of place; a notion that built form is inspired by specific environments and forms part of that particular environment becoming *genius loci* of the particular place.

Rapoport (1969: 74) suggests that there are two ways in which the effect of the site on buildings can be considered. The first would deal with the physical nature of the site its slope, type of rocks or soil, run-offs, vegetative cover, microclimate, and so on. The second would consider the symbolic, religious, or cultural values of the site and their consequences (Rapoport, 1969: 74).

Siting and to a degree building form, are mainly the result of social factors, which may include family or clan structure and grouping relation to animals and the spatial relationship with them, attitudes to nature, the needs of magic, and sacred orientation and the symbolism of landscape features.

Karen Blixen highlights that it is the cultural aspects of the choice of site that seem most crucial in choosing a site to build. The fact that sites are chosen on the basis of myth, religion, and a way of life rather than on utilitarian or physical grounds has been pointed out by a number of writers (Rapoport, 1969: 74).

Buildings fit into the landscape and express this attitude through choice of siting, materials and forms. These forms not only satisfy cultural, symbolic, and utilitarian requirements but often are so much part of the site that it cannot be imagined without the dwelling, village or town. Such qualities also reflect the presence of shared goals and values, a clear and agreed on purpose and an accepted hierarchical structure of a house, settlement, and landscape, as well as direct response to climate and technology (Rapoport, 1969: 76).

For example, the Australian Aborigines define place through sacred directions, routes of dreamtime ancestors and their stopping places become sacred sites, landscape features. Eliade's view is that a sacred space is more real than profane space which is amorphous and formless. Ritual orientation enables reference to some fixed points which are in sacred space. Rather than defining sacred spaces by building they make each natural feature significant, they obtain the coincidence of mythical and physical landscape which distinguishes places from each other and establishes a system of special places. Space becomes symbolic through myths of dream time, they construct ritual ceremonial sites laid out in a sacred order and they have strong attachment to site (Oliver, 1975: 42).

It is a true phenomenon that traditionally site holds significant meaning that can be seen, most of which are culturally inclined. In order for such environment to be perceived as important they must be able to carry historical background or be able to tell a story. The important aspect in designing is designing with the context than designing against it.

3.1.6 Spatial meanings and climatic response

The organization of space differs according to the purposes and according to different rules which reflect the activities, values and purpose of the individuals or groups doing the organizing. Intuitively space is the three dimensional extension of the world around us, intervals, distances, and relationships between people and people, and people and things. Rapoport (1980: 12) state that space organization is the way in which these separations occur, although space organization itself expresses meaning and has communicative properties, meaning is often expressed through signs, materials, colors, forms, size, furnishings, landscaping etc.

Specific organizations of space meaning reflect and influence behavior of people, it can also be seen as the organization of time reflecting and influencing behavior in time. In a contemporary situation, where people generally do not directly shape their environments, semi fixed elements become particularly important and play a major role in personalization and other ways of expressing individual and group identity.

Environmental existence is in terms of people's actions and meanings; it is in existential space which is neither external object nor internal experience. According to Schulz, (1971:12) architectural space may be defined as a concretization of this existential space. Pearson and Richards (1994: 5) posit that the relationship between spatial form and human agency is mediated by meaning; people actively give their physical environments meanings, and then act upon those meanings.

According to Pearson and Richards (1994: 40) a constructed cultural space is a defined context where people undertake particular activities at particular times. People move through its confines and do things at appropriate places. Thus, meaning is realized through social spaces.

Symbolically perspective, spatial layout may embody particular associations or meanings attached to space, as a model of ideal domestic relationships between genders or between

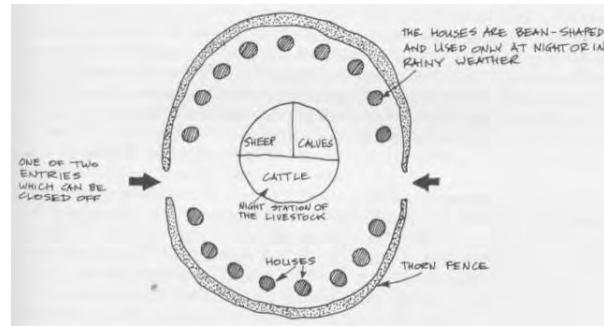
generations as a model of social relations or statuses within society, either by categories or by degrees of difference (Pearson and Richards, 1994: 229).

Thus this notion suggests that space possesses symbolic meaning and interpretation which enables meaning. Secondly the character of space is achieved by social interactions and is as a result of a social requirement to perform certain functions.

Traditionally every space, form, location, orientation has a meaning. The spatial organization varies from community to community and others according to what is of great value. For instance traditionally, in a polygamous situation, the man has no real house and he visits his wives, each of whom has her own house on different days. The impact on this house form is clear when the two houses are compared in the same area, one belonging to the polygamous and the other to the monogamous. Although the same features are found, separation of man from the wife whom he visits controlled single entry, walled compound, and protection according to granaries; the spatial arrangements are different (Rapoport, 1969: 56).

However to the Masai, cattle is not only a symbol of wealth but have a mystical, religious, and ceremonial importance transcending their economic value and forming the basis of the Masai culture and there is probably symbolic features in the circularity, the centrality, and the fence itself. It is thus considered to be of great importance and justifies its central position. Fig. 13 is an illustration of the Masai tribe's spatial arrangement.

Fig. 13- Illustrate the spatial configuration placing importance by centralizing the activities of importance



(Source- Rapoport, 1969: 57)

There is an element of symbolism and hierarchical order of space in African societies. Some African communities designate the central part as an open court-yard for communion and integration or a place of reception.

This becomes a clear model of how traditionally, spatial organization of any given society can inform the contemporary built forms to yet still reflect the society's identity. Njoh (2006: 28) argues that here form may not literally be the same, and the technology may not be the same but the spatial organization becomes the informing factor which creates coherent unity of time in space.

Njoh (2006: 28) further substantiates the fact that the idea that whatever African may consider their own architecture was devoid of a feeling space and that Africans never made an attempt to use space itself as a building material is fallacy.

One example Njoh highlights is the GZR the Great Zimbabwe ruins, which comprises of a castle of inter-locking walls and granite boulders that were constructed between the 13th and the 14th centuries by wealthy Shona-speaking cattlemen in the present day Zimbabwe. Some of the intriguing engineering, no binding material used walls, an array

of chevron, herringbone and many other intricate patterns and durability, a complexity that has survived almost completely intact for more than seven centuries. Fig. 14 is an illustration of the Great Zimbabwe.

Fig. 14- Illustration of the Great Zimbabwe portraying defensive spaces



(Source: <http://www.arandgame.files.com>)

Europeans suggest that Phoenicians, Arabs, Romans or Hebrew constructed the ruins but their theory has failed (Njoh, 2006: 28).

Atkinson (1950: 228) highlights that not only does house form the physical background against which a community develops but, in the form of the shrine and the temple, it affects its mystical life. The way in which the different people of Africa have developed house forms suited to their customs of living, to building materials close at hand and to the local climate, is a fascinating subject.

Njoh (2006: 143) further laments that the shortage of literature on housing, architecture and spatial organization strategies tends to devalue the efforts by tradition and customary practices for the development in Africa.

African architecture cannot be fully appreciated unless it is seen as part of the artistic expression of the African people. He further argues that the diverse architectural forms and styles are as a response to the various geographical locations and the climate in the

surrounding areas. To further illustrate these, while the northern portion of the African continent is dominated by Arabic architecture, the sub-Saharan regions boast a considerably wide variety of architectural styles. Among these are beehive or domical, bread-loaf-shaped, onion-textured, inverted cone, bullet-tip, or egg shaped, bell shaped, rectangular with hump roof, square-box with pyramid roof, ant-hill-shaped, cone on cylinder, quadrangular, surrounding an open courtyard etc most of which was an influence of their lifestyle (Njoh, 2006: 166).

Rapoport (1969: 46) states that house form is not simply the result of physical forces or any singly causal factor, but is the consequence of a whole range of socio-cultural factors seen in their broadest terms. Form according to Rapoport is modified by climatic conditions (the physical environment which makes some things impossible and encourages others and by method of construction), materials availability, and the technology, the tools for achieving the desired environment (Rapoport, 1969: 46).

Buildings and settlements are the visible expressions of the relative importance attached to different aspect of life and the varying ways of perceiving reality. The form of a house, the village, and the town express the fact that societies share certain generally accepted goals and life values. The traditional forms are less of an individualistic desire than of the aims and desires of the unified group for an ideal environment. They therefore have symbolic values, since symbols serve a culture by making concrete ideas and feelings. At the same time house forms are more than artifacts, are influenced and modified by climatic forces, choice of site, and availability and choice of materials and construction technique (Rapoport, 1969: 47).

Spatial function remains a pivotal role in the formation of environment as it deals directly with what takes place in an environment. Spatial organization is an important attribute to the formation of space as these deals both with the physiological and physical aspect of human being. Both the character and function of a space remains a predominant factor in the creation of spaces with meaning. It is therefore needless to say that form must follow

function and that through space one's behavior and actions are determined. Spaces set the mode and tone for activity to occur. Lao Tze (ct in Wright, 1939).states that:

"The reality of the building consisted not in the four walls and the roof but inhered in the space within, the space to be lived in."

3.1.7 Beauty through function

It is necessary for buildings to attain functionality in order to satisfy human needs.

Adolf Loos (ct in van der Voordt & van Wegen, 2005: 24) is one of many architects that found usability as an important criterion for architecture, calling for pure architecture and simple forms suited to practical usability. He rejected the use of ornamentation for purely decorative purposes, and viewed decorations as tattooed architecture and thought it impossible for anything impractical to be beautiful (ibid).

David Hume almost 200 years in a treatise of human nature (1739), identified beauty with utility; efficiency generates beauty (ct in van der Voordt & van Wegen, 2005: 24).

Frank Loyd Wright once stated that:

"If the inside of a house is convenient and properly arranged to suit the needs of its occupiers, its exterior will be attractive too (ct in van der Voordt & van Wegen, 2005: 24)"

Frank Loyd Wright (van der Voordt & van Wegen, 2005: 24) based his designs on the purpose for which they were designed for. What he wanted to achieve was an organic architecture the idea that a building must grow from people's needs and from the character of the land from which they are built from like a living organism.

Hugo Haring in (1882-1958) concurred with the idea stating that conformity between function and forms is essential. Designs must provide each activity with its own separate space. Architects should express in the form the essential function of the building (van der Voordt & van Wegen, 2005: 24) hence meaningful beauty must attain functional requirements.

3.1.8 Spatial configuration

The issue with regards to surrounding spatial configuration requires accurate appropriation and articulation in order to achieve spaces that relate to the desired activities. Spaces must be able to address the social needs, activities achieving relationships with one another.

Spaces suggest activities and spaces must create transition whilst correlating with each other. It is important that the spaces of such a project be more adaptable and accommodative to activities. Flexibility and multi-functionality must be achieved.

Spaces designed to suit only one function is often rather badly suited to other functions, however both use and users change with time. Thus most architects produce spaces that are suitable for multiple uses, allowing individual interpretations and interventions.

This notion suggests that space articulation must allow for many activities, be adaptable to multiple uses and must be versatile responding to diverse human's needs.

Hertzberger (ct in van der Voordt & van Wegen, 2005: 32) points out that to be able to stand up to the change, forms must be built to allow a multitude of different interpretations. They must be able to take on several meanings and then abandon them again without harming their own identity. Mies van der Rohe, whose designs were strongly influenced by effort to achieve a degree of independence from function, location and climate; he believed that good architecture can accommodate a variety of different functions and can be seen from the way his designs' simple generous space which can be equipped end up being used by the user to suit their needs in a way they think proper (ct in van der Voordt & van Wegen, 2005: 33).

3.1.9 Indigenous knowledge

One most important aspect remaining in architecture is the aspect of using architecture as an informant tool, a means of passing information to generations. This idea suggests an architecture that is meaningful and that surpasses the idea of using architecture and means for shelter only. The architecture of the present day seems to lose its meaning and seem to be focusing only on the aesthetic beauty which is void of meaning. Modern technology and the discoveries of new materials and methods of building seem to bury the past meaning through which a society gains identity. Hence the issue of preserving and passing indigenous knowledge remains a great need in the process of restoration of cultural identity.

More over buildings of the past were adorned with attractive patterns and paintings some of which are symbolical to certain regions and societies. The patterns were a discovery by women as they applied finishes to their house with mud, then the hand would leave pattern which then created opportunities for diverse pattern acting as decorations to their homestead. Oliver (1975: 122) argues that different patterns signified different region and meanings which then become symbolic to certain beliefs.

Most definitions of indigenous knowledge refer to accumulation of experience and the passing down of information from one generation to the other within a society (Mundy, Compton, 1995: 112). These types of indigenous system enable the preservation and the passing down of indigenous information to generations through, communication, art, social integration. Thus cultural centers become ideal systems through which the preservation and dissemination of such knowledge can be achieved, with the aim of restoring identity of a given society.

The Indigenous Knowledge Systems is an enabling framework to stimulate and strengthen the contribution of indigenous knowledge to social and economic development. The affirmation of cultural values in the face of globalization – a clear imperative given the need to promote a positive identity; the challenge remains as to how

best architecture can be used as a tool for the conservation and distribution of indigenous knowledge. Tado Ando (1998) highlights the need for the preservation of the craftsmanship, which has been handed down to the future generations.

Indigenous knowledge is an appropriate tool that can be used to reconcile people and environments with their past. Such systems can allow social integration and involvement which empower a society with tools to shape environments of significance and relevance. Cultural centers are the appropriate centers which could be used to conserve indigenous knowledge, and to ensure continuity on the use of such knowledge by future generations.

3.1.10 Fostering a progressive architecture

Culture is forever evolving it is not a static entity, and such idea demands that the approach to culturally inspired designs needs to seek a futuristic expression whilst reflecting the meanings of the past. Designs of the present and the future must not replicate past primitive designs, the fact that human needs are constantly changing suggest the need for progressive approach in solving architectural issues.

Architecture must no longer portray preconceptions, but actively seek for new relationships between material, purpose and reality. It must seek languages of expression that engage history without portraying it; that value substance and experience before image and myth; that build culture and not its memorial (Barsness, Bentel, Minor, 1989: 11). Hasan-Uddin Khan (ct in Pearson, 1994: 121) states:

“Architecture rooted in cultures and traditions must extend them to reflect contemporary concerns and to transform the models of the past to act as a catalyst for the future. Tradition and modernity are merely two sides of the same coin and must be dealt with simultaneously. Building cannot be a rigid dogma, but a living, organic, ecological project. It is about continuity, based on memory, common sense, and experience, and is the foundation of invention”.

Frank Lloyd Wright (1939: 3). States:

"For architecture to recognize its own nature, to realize the fact that it is out of life itself for the life as it is now lived, a humane and therefore an intensely human thing; it must again become the most human of all the expressions of human nature. Architecture is a necessary interpretation of such human life as we now know if we ourselves are to live with individuality and beauty".

Buildings must seek an innovative way to express culture without mimicking the past primitive forms. The forms must be able to liberate its past confines yet remain able to celebrate the past in the present to inform the future, a notion that suggest built form must not be bound to the past traditions but must be able to convey meaning in an much futuristic way. The architecture of the present times must outlive its time and this can be achieved by evoking the inner most sense of a human being. It must be able to transform whilst instilling significance and identity.

CHAPTER 4 A HISTORICAL APPROACH TO THE DESIGNS FOR CULTURAL CENTRES

4.1.1 Introduction

Cultural centers are a celebration of culture, tradition, and history of a specific society. It is important to ensure that the location, place, and orientation on which the project sits on is significant to the society's culture and tradition. Such centers become conservation centers of people's identity, culture and indigenous knowledge systems. The historical background of the place is vital as it tells a story of the place and its people.

The precedent study focuses on the articulation and appropriateness of both cultural centers and buildings that bear cultural significance. The study consists of different buildings that will demonstrate qualities of identity, functionality and relevancy to the contexts which they are built from.

The study will analytically illustrate the required attributes for cultural centers that both relate to context, culture and function without particularly being bound to the past. The study will concentrate on the concepts, form expression, the quality of spaces and the symbolic meaning of the projects in the quest of drawing out the elements that constitute a cultural centre that is symbolic to its past yet itself being timeless. The study shall be carried out on the following projects;

A selection of cultural centers including Kanak cultural centre by Renzo Piano, and Mpumalanga Provincial Government building have been selected as an ideal projects for the precedent study which aims at illustrating important elements that constitute a cultural centre and appropriate articulation of such centers.

4.1.2 Concept derivation

The concepts to such centers must be driven by historical significance of that particular place and must put to consideration the society and context from which they are built on, they must reflect

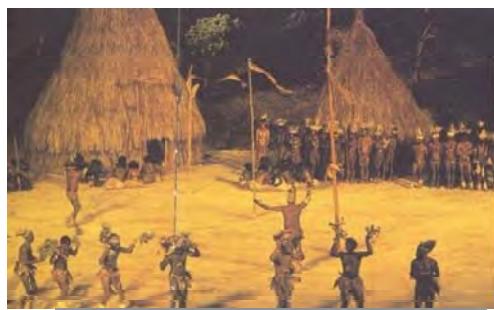
the identity of that particular society. Kanaka cultural centre portray is a perfect example of a project derived from these cultural attributes.

The indigenous Kanaka people live on the island of New Caledonian archipelago. In 1991 Renzo Piano won an international competition to design a centre of Kanak culture. The centre is named after Jean-Marie Tjibaou, leader of New Caledonia independence movement who was killed in 1989 by Kanak extremists unhappy with the agreement he had brokered with the French for a referendum on independence. Piano developed his original proposal with the help of local people, including Tjibaou's widow.

4.1.3 Tradition and form

Building forms can be metaphors for certain symbolic meanings or interpretations. Different forms can be used for different interpretation and meaning. Nature can be used as form generator together with traditional forms. The form derives itself from the Kanak's traditional house forms. The traditional forms together with the trees found in the landscape as metaphoric design generator to inform the design form.

Fig. 15- cultural dance



(Source- Chaslin, 1996: 43)

Fig.15 shows a cultural activity, of a dance which illustrates the idea that circular forms and rhythms play an important role in their gatherings. A synthesis of both the tradition and nature found in the place was brought together to inform the form. The traditional round forms and the circular patterns on cultural activities and rituals has been fused together to create the identity and transforms the building from traditional to more dynamic futuristic forms. The diagrams in

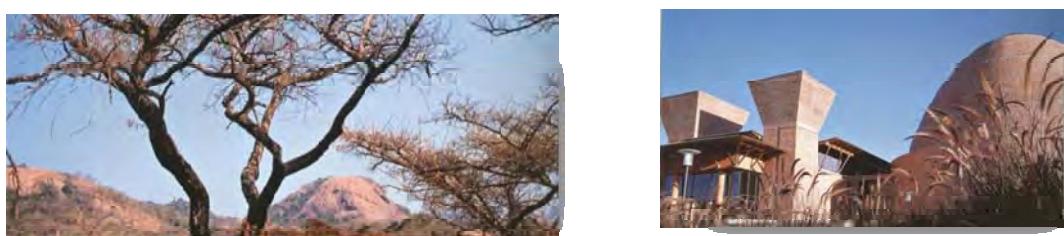
Fig. 16- forms derived from the natural landscape of the place to inform design



(Source- Chaslin, 1996: 42)

the Mpumalanga Legislature building's chamber borrowed natural ideas found in the landscape as an inspiration to the design of its chamber. The dome is reminiscent of granite outcrop prevalent in the area, and this is where the parliament assembles and it signifies the symbol of power. The idea is to absorb all the attributes or elements the context can give in order to create built forms that have meaning and bearers the identity of the place.

Fig. 17- traditional forms



(Source- Malan and McInerernery, , 2001: 42)

Fig. 18- symbolic forms**4.1.4 Symbolic forms**

(Source- McInery, 2009: 56)

Different symbols of the past have different meanings and translations. The Northern Cape Provincial Government has used different traditional forms with symbolical meanings and interpretations together with artworks created by the local. The shapes, forms and imagery of the design break the formal presentations of Government buildings. The forms are sculptural, and the project has a highly artistic impression which expresses the multicultural identity of the people. It is embellished by local artists to emphasise its local cultural importance, and is a source of pride in the community. The expressed human forms manifest the dynamic role art can play in the formation of built environments. The conical tower demarcates the entrance it becomes the focal point, the gateway and act as a visual link, the landmark, it takes precedent of the Great Zimbabwe's granary and is symbolical to the African culture. Fig. 19 shows the articulation of forms.

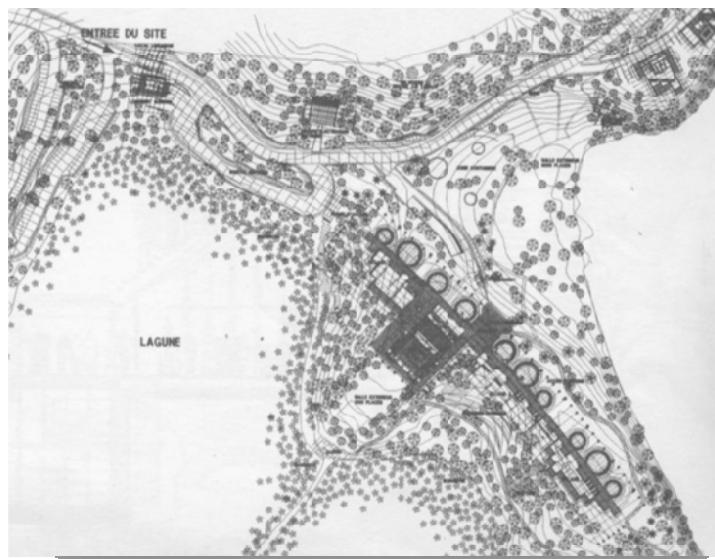
Fig. 19- symbolic forms

(Source- McInery, 2009: 56)

4.1.5 Contextual response

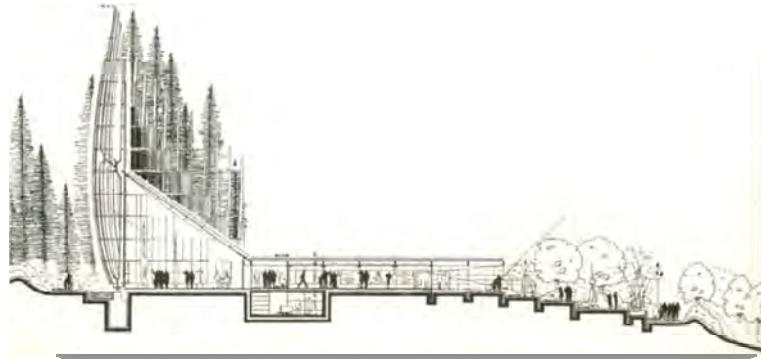
The context at which the building sits is highly natural, and the landscape has a strong ridge that filters into the ocean. The buildings lie on the ridge on a strong axis. The aim was to respond to the context and the terrain. The decision to place the building on the ridge in a linear position enabled the building to express dominance and become part of the terrain itself. The building celebrates and expresses the potential of the site.

Fig. 20- the building engaging with its context



(Source-Mcinsty , 1998: 34)

The typology of the building lends itself to the type of nature found in the area. The building expresses architecture which is organic and regional. The building acknowledges its landscape through the use of natural local materials and responding to the terrain, it steps transitionally towards the ocean. The form does not only reflect the typology of its context but the use of natural materials to blend in with its context. The concept of localness has been used through local participation by the community and the use of skills in the design through local artworks.

Fig. 21- cross sectional elevation

(Source- Mcinstry, 1998: 38)

4.1.6 Form and landscape

It is important that buildings acknowledge the landscape which they are built upon. This notion suggests that form must embrace its landscape. The building must merge with its landscape. Kanak cultural centre becomes a model on how buildings must acknowledge their environmental settings. Fig. 22 illustrates how the building has successfully integrated itself with the environment and merges with its natural surroundings through the proportion, height, the use of natural materials forming the Genius Loci of the place.

The Cradle of Human Kind is another perfect example of a building that integrates itself with its landscape. The land as a site has spiritual connotations; hence the building was designed in a way that engages with the ground to commemorate the buried and those past human skulls found in the place. The building buries itself into the ground and becomes part of it's the landscape; grass flows uninterrupted under it, the use materials reflect the colours of the earth.

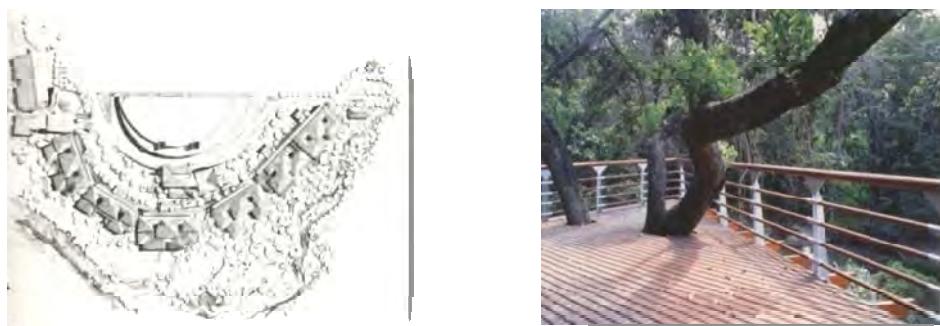
Fig. 23- form merging with its landscape



(Source- <http://www.maropeng.co.za>)

Mpumalanga legislation building has been designed in such a way that it integrates with its natural environment through the creation of avenues of natural environment in its courtyards, pavements etc. The building engages with the site in more dynamic ways, the use of natural materials, by using roofs that expresses horizontality drawn from the nature of the trees found in the area. Instead of removing the trees, the building integrates with the environment. Fig.24 shows how the building celebrates its environment by integrating with it instead of clearing the environment.

Fig. 24- Engagement with nature



(Source- Malan and McInernery, 2001: 33)

Fig. 25- Landscaping

(Source- Malan and McInernery, 2001: 62)

The overall concept in planting design is aimed at keeping most of the site as natural as possible. This aspect also allows the building to blend well with its natural environment.

4.1.7 Identity through art

The building materials have been carefully selected and the traditional weaving methods by the women of Kanak have been borrowed to influence the pattern and texture of the building itself. Cultural and local art has been used to inform the aesthetics of the building project. The texture and patterns of finishes were adopted from the use of traditional weavings and technology use by the locals to achieve the particular aesthetic presentation, a notion that creates culture and identity of the community.

Fig. 26- Traditional weaving as means to express art and identity

(Source- Chaslin, 1996: 41)

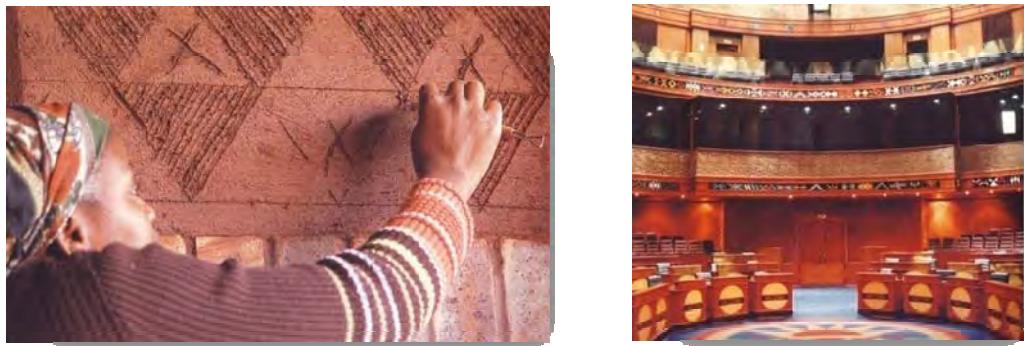
Natural materials, weaving patterns have been used in a more abstract manner to inform the aesthetics of the building. Colour, texture and patterns create a cultural representation and are symbolic and significant to specific society's way of living. The finishing of the building celebrates and reflects the Sotho, Pedi, Tsonga, Tswana, Swazi and Ndebele cultures. The complex synthesis of these elements which provides a unity that combines to create a uniquely African-South African and Mpumalanga experience. The building expresses relevancy to an African spirit. The finishes are themed into three categories: the rock, mud or clay, grass for woven fabrics and reeds for posts. The red brick reflects the earth found on the site itself. Identity in such a case is achieved through the use of local artworks bearing certain meanings and interpretations by the local community. The paintings identify with their history and they are considered as means of communication and are done manually by the local residence as their pride and contribution to the buildings. Hence such buildings reflect the identity of the community. The building reflects the identity while borrowing styles and patterns to inform certain elements of the building as show on Fig. 27

Fig. 27- Nature informing finishes of the building



(Source- Malan and McInerney, 2001: 47)

Fig. 28- Artistic impressions used to inform aesthetic impression



(Source- Malan and McInerney, 2001: 44 and 48)

The dome's interior takes its precedent from the corbelled parabolic stone dome of the 19th century settlers in the Karroo. The final patterns of the interior of the dome have been inspired by the basket weaving of the Ndebele traditional artwork, hence the traditional shapes of the beehive dome that emulate the patterns of a woven basket. The overall theme of the building reflects the significance of African theme. Fig 29 is an illustration of how traditional artworks have been effectively used to inform the technological aspect of the building.

Fig. 29- Traditional artworks used to inform technology on the ceiling's chamber

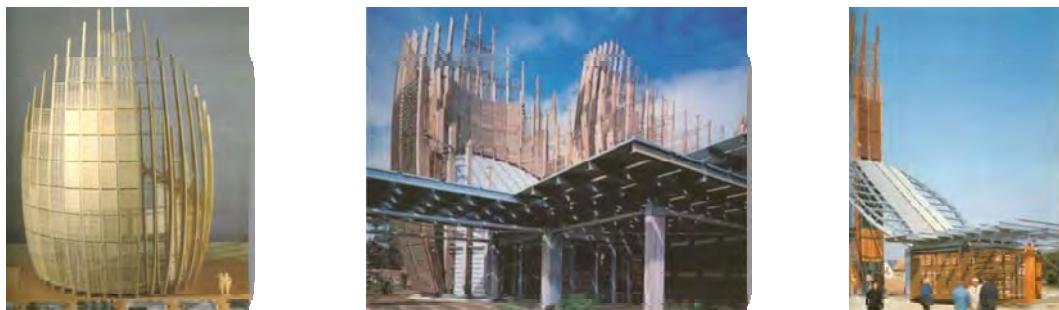


(Source- Malan and McInerney, 2001: 84)

4.1.8 Materials and Technology

The use of materials such as timber, steel and the execution of the building reflect the genius on the architect. The building uses timber as the main material, steel has been used as secondary material. Traditional weaving patterns have been used to derive a more abstract way of creating pattern and to achieve interesting aesthetic patterns. The building becomes an embodiment of the kanaka's tradition and culture which aims to be relevant to the dynamic changes of traditions of a society. The idea of using technology to project evolution and progression seems to work well. Progression can be expressed through the use of materials, the use of steel glass expresses a nonconventional way of creating forms that are not bound by the past but seek new and easier ways of construction. Kanaka Cultural center manifests a high level of new technology the dynamics of combining and expressing the new from the old which then creates a modern and dynamic presentation and in genius architecture which is somehow timeless.

Fig. 30- Technological response



(Source- Chaslin, 1996: 41)

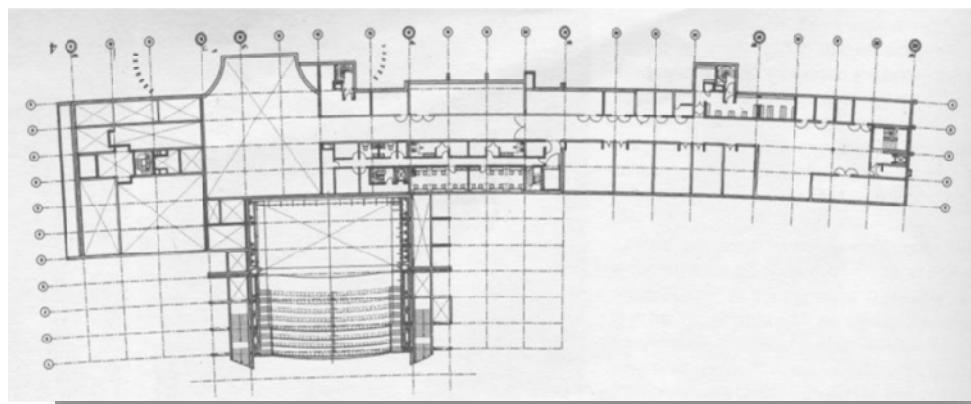
Fig. 31- The tumulas expresses a futuristic form in modern technology



(Source- Nel, 2006: 26 and 27)

4.1.9 Spatial organization

The building sits on a ridge with a strong axis which forms a datum on which all the accommodation is linked. The accommodation is arranged in a cluster arranged in an axial linear arrangement. The idea is taken from the traditional setting of the Kanaka homestead. The strong axis is used as the circulation corridor which then acts as a datum unto which the rest of the accommodation is interlocked and allows easy access to the exhibition space, theatre and the rest of the accommodation.



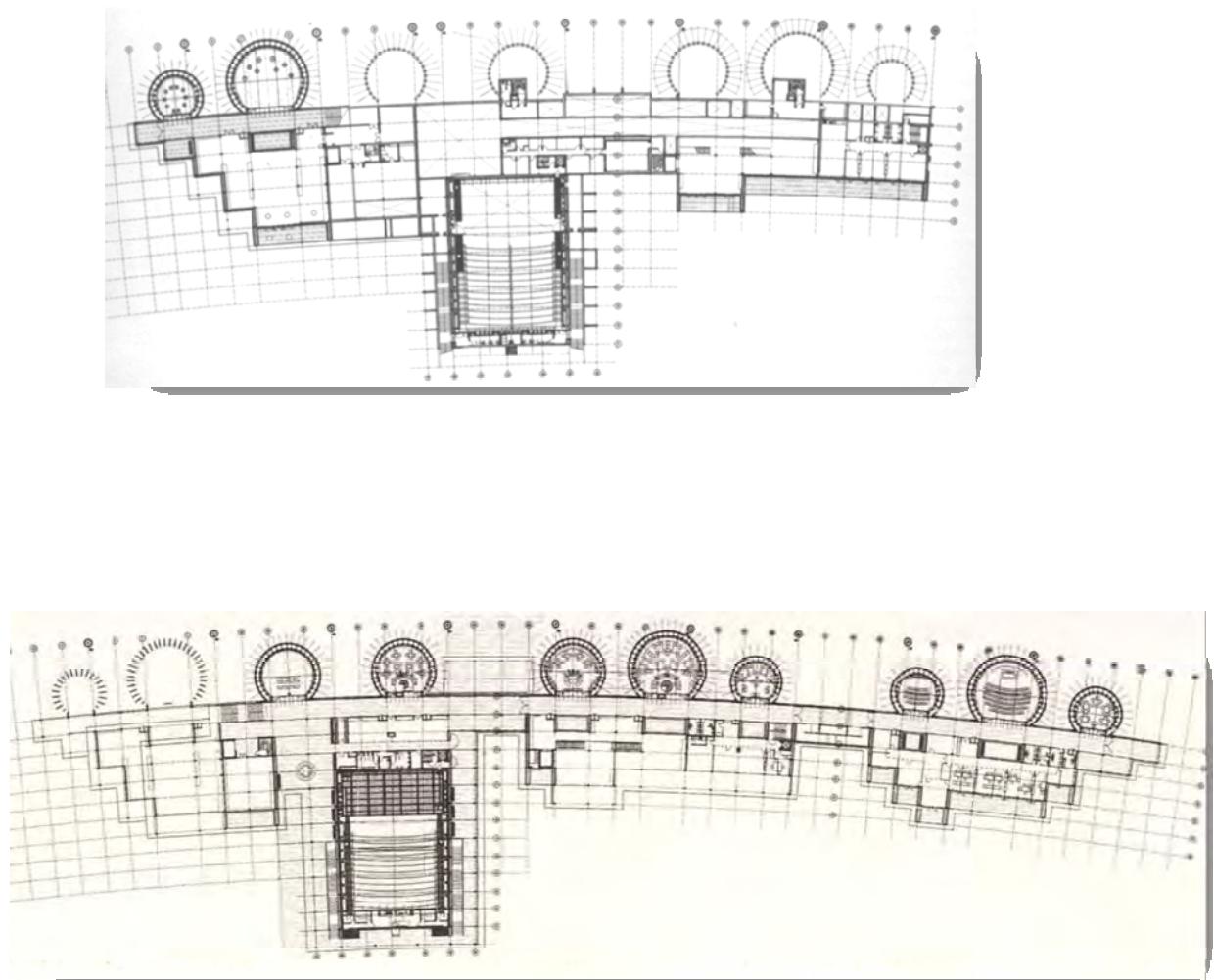


Fig. 31a- layouts showing accommodation and circulation in an axis

(Source- Chaslin, 1996: 43)

The axis becomes the anchor to which all the parts of the buildings are connected enabling easy usability by offering a simplistic approach to the functions. The building takes consideration of the context from which it is built on the ridge; this idea makes the whole scheme to blend well with its natural environment there by creating *genius loci*, the specificity of the project to its place. The overall character of the building speaks the language of its context and the Kanakas community.

4.1.10 Flexibility and fluidity

The spatial arrangement of the Legislation building in Fig 32 & 33 portray an organic impression, an idea which relates to the volumetric form itself, coherence is achieved through curvature. The interior of building speaks the same language with the exterior. The places flow allowing easy circulation and the accommodation is articulated in a coherent manner making the whole scheme organic in nature. The fluidity enables progression and continuity throughout the building.

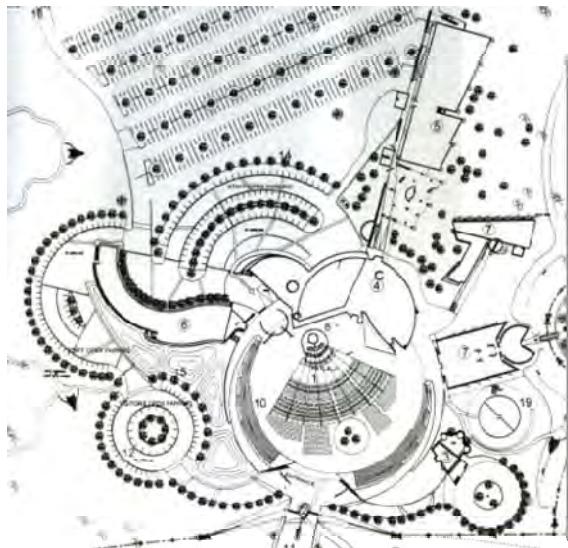
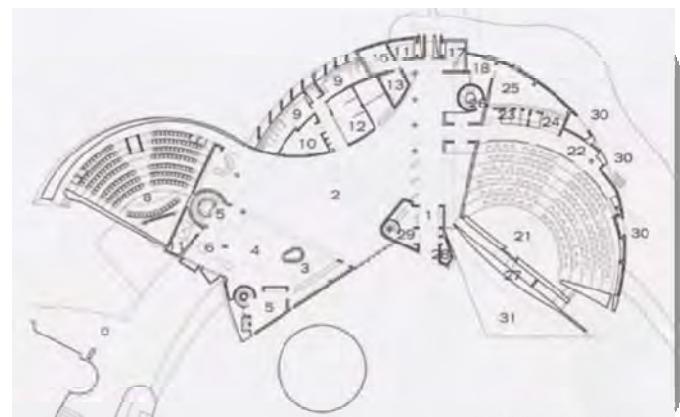


Fig. 32- An organic site layout
(Source- Deckler, Grauper and Rasmuss, 2006: 11)

Fig. 33- The layout expressing fluidity of space

(Source- Deckler, Grouper and Rasmuss, 2006: 13)



4.1.11 Light fenestration

Light through the walkways and galleries is achieved through the use of transparent glass and timber slates which allow light to penetrate the building. The project portrays good qualities of sustainability and energy efficiency. Fig. 34 illustrates how efficient natural lighting has been incorporated in the building spaces such that minimum use of artificial light is used.

Fig. 34- illustrating means of light emission into the building

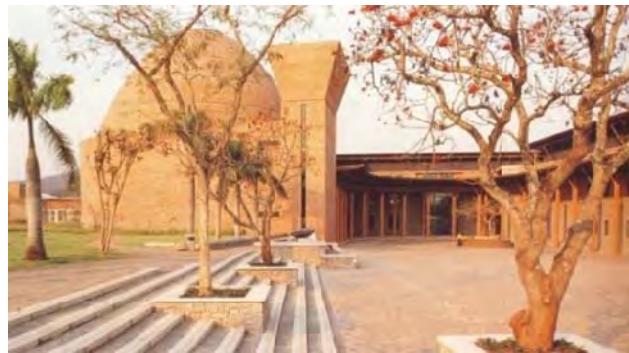


(Source- Mcinstry, 1996: 46)

4.1.12 Interactive spaces

The grand piazza and the courtyard have used the concept of integration, gathering an important aspect in the African tradition. The opening space is used as a place for relaxation and social interaction. The piazza becomes a multifunctional space to be used for a wide range of activities and performances.

Fig. 35- Public space



(Source- Malan and McInernery, 1996: 40)

4.1.13 Conclusion.

The precedents have been carefully selected to illustrate the influence local culture and tradition certain has towards the formation of built environment and elements which are culturally inspired. It is important that buildings of such a nature should draw inspiration from such buildings. The buildings have strong symbolical forms and the celebration of multiculturalism through art expression. The buildings expresses the principles of using art as form to inform identity in buildings an aspect that is a celebration of culture, tradition and the talent of human. The principle of symbolism is expressed in a high dimension. Coherence of form and spaces, express the importance to architectural language.

CHAPTER 5 THE ARTICULATION OF A PROGRESSIVE ARCHITECTURE THROUGH CULTURAL CENTRES

5.1.1 Introduction

A case study is aimed at drawing a detailed analysis on the formation of cultural centres that have reference to the past and are adaptable to the present and sustainable to the future. A detailed analysis on the composition, articulation and significant meaning shall be established. The perception is that through a case study will give an understanding of the importance and role cultural centres have in the society. The outcome of the study will highlight the important factors to be considered in designing of cultural centres which include the importance of meaning, design derivation, symbolism, spatial configuration and relationships. Most importantly how identity and meaning could be achieved through forms and how the whole idea of cultural centres may be used as a catalyst for the preservation and conservation of culture.

Furthermore this case study will act as a guide and a template for the processes involved and to be considered in the formation of facilities bearing the past whilst having meaning in the present and the future generations. This is aimed at exploring the appropriation of cultural centres, their usability and how these facilities may be articulated in ways that will not result in replication of the past primitive forms. It will focus on how these facilities may be built to achieve versatility and futuristic approach in designing whilst maintaining past principles and meanings. It will seek for new yet compatible methods or resolutions that will ensure architecture has progression, not bound by its past but seeks to manifest past meaning to the present and the future generations. It will search for ways in which futuristic architecture will have on cultural relevance to the society whom they are built or designed for. Culture evolves through time it is never a static dogma hence the case study seeks to illustrate how timeless forms may have been achieved yet still bearing past connotations.

5.1.2 Justification of case study

The study aims to express show the need architecture that that bears the identity of the Swazi culture and people. Swaziland yet so rich in culture lacks an architecture that identify with its people, most of its architecture is of a colonial influence and does not in any way reflect the identity of the people. The study seeks to show need and articulation of culturally inspired buildings and the buildings and the selection of these case studies has been because of their appropriation and usage which is relevant to that of a cultural centre. The selected projects include the Museum of Swaziland which will critically highlight the misappropriation of an architecture that has identity and relevance to its culture. The analysis will critic the architecture with the aim to show the need for buildings that will be an epitome of a society's culture. Since Swaziland does not have a any building that possess such qualities hence a selection of building have been selected in South Africa that will be used in the case study to draw inspiration and understanding from.

Therefore Freedom and the Cradle of human kind are ideal projects to be used for the case study. Both projects deal with historical backgrounds and they both support the idea of culture having a significant role in the derivation of their concept and design. They recognise and celebrate the context from which they occur and both posse significant meaning. Both projects transcend the limitations offered by traditional or historical forms. Both the projects place major importance to their context, instead of conforming to normal primitive forms of the past they somehow display a futuristic design approach and an expression that is timeless revoking interest to the viewer. Though possessing a futuristic impression they both have strong links to their past historical backgrounds, and found to be appropriate in analysing the elements for cultural centres and may be used to inform the proposed project. The form, planning processes, the activities and the accommodation relates to the intended projects, hence a critical analysis and conclusions will be drawn upon the areas of relevance to the topic of interest.

The case study therefore shall concentrate on the designed derivation, relationship to its context, symbolic meanings, spatial configuration and relationships, form expression, quality of space, usability of spaces, technological resolution, materials and sustainability. An accurate analysis shall be drawn by the use of pictorial images, drawings and layouts for the projects, interviews with both the designers and users of the facilities together with information acquired from the literature and precedent studies. The primary aim for the case study is to draw a critical and analytical resolution for the proposed project to test its design principles, theories, significance, meaning and functionality towards its intended purpose and whether a project can become an epitome of a society's culture and whether it reflects and bears the identity of its people.

Cultural facilities must aim to educate, preserve and to teach and should be institutions which serve the community. The challenge for such facilities is their inability to express themselves in a cultural language. This case study seeks to reveal certain aspects which cultural facilities must consider in order that they successfully portray and fulfil the intended purpose which is basically to manifest the cultural image of its particular society. The aim is to examine how effective such facilities can be articulated. A critical analysis will be drawn on site significance, design concept and its derivation, context, significant symbolic meanings, the underlying principles of traditional designs and how they influence the modern, multi-functionality and usability of spaces, art as means for identity, planning organisation, materials and technology, aesthetics symbolism and meaning, environmental impact, futuristic and timeless approach of and how these facilities relate to given societies, finishes and the storage of the museums. These museums were selected to display and express principles applied in their design process for such facilities, its shortfall towards achieving architecture with cultural identity.

5.2.1 Background

The museum of Swaziland was built in 1982 under its aim was to preserve the country's history, cultural and tradition through exhibitions. The building was designed by the ministry of works under and expresses architecture that is of a colonial influence. The building is a simple single storey building which includes a reception, sitting area and an entrance hall, courtyard, four exhibition art galleries, an amphitheatre, offices, and rest rooms. Though Swaziland is one of the countries with minimum population, the countries museum is small and is not as active as it is supposed to be mainly because of its design limitations and the fact that most of the exhibits are passive hence people cannot interact with and the layout of the building does not meet multifunctional requirements and flexibility.

5.2.2 Site and Context.

Thus the museum sits in a very historical setting, surrounded by buildings of importance in Swaziland such as the Parliament building, the National Church, the Royal Residence, King Sobhuza II memorial and national cattle byre. By virtue of the nation's culture, the choice of site remains significance and upholds immense historical background.

In terms of culture the place is perceived to be of great importance (spiritual hub) since all cultural activities are being hosted in the area hence the site making it a symbolic and significant site. The building does not bear or reflect the image of any cultural qualities of its context except that its placing suits its terrain.



Fig. 36 - Entrance to museum

(Source- Author)

5.2.3 Symbolism

The building has a colonial influence and does not reflect any cultural influence. Though the building is rightly placed in terms of the historic background of the place, it lacks continuity with its context. The building does not have any symbolic reference except that the exhibits are cultural artefacts.

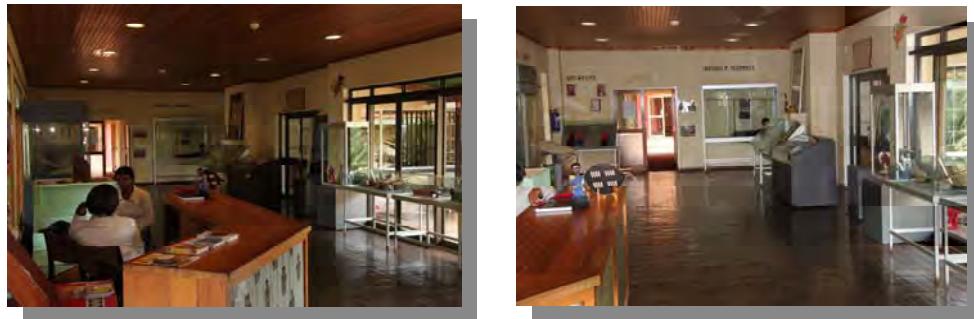
5.2.4 Form

The architectural language of the building lacks Swazi identity; the building form is neither inspired by the nation's tradition nor culture. Swaziland's is known of its traditional beehive form and its hierarchy of space with defensive screen wall system called liguma. The building has not utilised the use of local natural material that it blends with its surrounding. Most importantly the building falls short of the identity of the people of Swaziland.

5.2.5 Spatial configuration

The spatial co-ordination of the building was designed such that it meets a basic function which is accessibility and circulation. The entrance is centralized and has sitting area along the inside and an information desk, and such an arrangement hinders the flow of circulation and creates congestion. The building has four galleries, one gallery if for is used traditional artefacts, the second gallery is used for the history of the kings showing pictures of the kings and other historic event, the third gallery is used for the flora and fauna and landscape found in Swaziland, the forth exhibition space is used to showcase king Sobhuza's Auto Mobil. The Museum has no library, theatre and other relevant accommodation necessary for museums to function to their maximum

Fig. 37- The Reception and Foyer



(Source- Author)

A foyer and VIP lounge is needed to cater for huge numbers of people coming at once and to allow easy circulation. The foyer becomes a transitional space hence a grand foyer and required, together with spaces that allow fluidity of movement.

Directly opposite the entrance is a redundant enclosed court-yard which is a lost space. The idea was to create a space for interaction and relaxation an aspect of social responsibility but lies neglected and does not functioning as intended because of its size, location not enough opening and activities are opening to it hence the court yard become dead instead of giving life and vibrancy. The fact that museums were not considered to be

a place of social integration and lacked the element multifunction rendering the whole space passive.

The roof is relatively low and does not allow easy air circulation. The fact that the galleries are normal spaces rectilinear spaces without partitions which makes them to be open hall does not allow the notion of privacy to the users, which results in congestion and places with minimum privacy whereas museums should offer privacy to allow observers to concentrate as they move from object to object. The articulation of spaces for exhibition is vital as improper allocation causes distortion and complicates movement. The amphitheatre lies misplaced and small interlocked in between buildings, creating echoes during processions and does not allow freedom of movement.

Fig. 38 - Amphitheatre



(Source- Author)

5.2.6 Circulation and social interaction

Circulation in the building is has a single corridor unto which the rest of accommodation is linked which cause an overload during tours with large groups. The social aspect of museums has increased over time, and there is a transition in the design of museums brought about by the idea that museums must function as public places rather than store rooms and ware houses. There for such facilities have a social responsibility which is to house viewers not only for exhibitions but for social integration amongst each other.

This aspect not only serves as an entertainment factor but assist in dealing with large numbers of viewers arriving in a museum at once. In this case the social space becomes a transitional space for people to rest and relax whilst other groups are touring the place. This suggests the multi functionality of cultural facilities in the modern day, the need to have restaurants, coffee shops, amphitheatre for various activities etc. which allows social interactions and discussions amongst viewers. The Swazi museums lack such a notion which makes it a passive and stale place. People give life and meaning to a space and without life, space loses its definition and excitement. Hence the facility renders minimum social responsibility.

5.2.7 Light

Light becomes an important aspect of the a museum, it is quite clear by the articulation of walls and the provision of clearstory window that light plays a pivotal role in the formation of a museum. Provisional artificial lighting has been provided for the gallery though the challenge is between the walls. Some of the displays in the galleries do not have lighting at all and only survive by the use of artificial.

Fig. 39 - Galleries under renovations



(Source- Author)

There is a need for more natural light in the building which will allow clear vision to the displays. The building has enough glass to allow natural light into the spaces; the windows in the galleries are recessed to control the amount of light penetration in the building. Reasonable artificial light has been provided and is good enough to provide that

amount of light that is required for the exhibitions. The museum is currently undergoing renovations.

5.2.8 Access

Access includes means of transportation not only to the building but the site itself since exhibitions are made to the accessible to viewers the public. The distance from the transportation node becomes relevant. The early 18th century museums were made to attract the rich and intellectuals with enormous parking which rendered the building not easily accessible by the ordinary public an idea that is changing with the modern day museums.

5.2.9 Architectural expression

The architectural expression of the building has a colonial expression, contrary and misrepresenting to the Swazi culture. Contrary to the way such facilities must be articulated as discussed in the chapters above. Cultural centres must reflect and manifest cultural image. The notion suggests the celebration of culture and tradition through the use of local materials, weaving and painting methods and engagement of the community to the building. Building that will become the epitome of people's culture and the notion of that "what is right in Brazil is not necessarily right and fitting in Belgium" (Riviere, 1977, 67).

5.2.10 Adaptability

Cultural facilities must be flexible and be able to accommodate change the idea of multifunctional which serve space and create room for expansion. Adaptability means that a space is accommodate diverse functions. According to Prof. Lehmbruck, he argues that ideally the museum building should be nothing more than a shell, shelter, within which all divisions, floors, stairs and lifts can be easily rearranged as new needs arises (Riviere, 1977, 66).

5.2.10 Empirical Data:

Empirical Data:

The data collection to the building and the interviews collected on the museum revealed the need for firstly a facility that will manifest the Swazi cultural image through form, and the articulation of space and the use of materials. Secondly the interviews expressed the need for a facility that will provide office accommodation for the employees and staff. The inability for the spaces to express meaning and function and the size of the building needs to be increased to meet the standard of public buildings.

The analysis expressed the need for the building to accommodate more than one function an idea that will enable multi-functionality of the building, the idea of a multipurpose ensures adaptability and versatility of the building therefore contributing to the effectiveness and usability of the building

Buildings of cultural activities must manifest the society's identity an element that is lacking in the museum of Swaziland. The building has not taken advantage of the cultural opportunities offered by the site and the context at which it is built from. Facilities of this nature must express the ability to function as means of indigenous knowledge systems through which the future generations and a society may learn about their past.

The museum revealed the need for improvements both the user and the staff highlighted the fact that the facility needs to be developed further to cater for more accommodation for the staff, and to ensure the facility functions to its maximum potential with spaces that encourages public usability. There is a need to synthesise the building of such a nature to its culture and tradition in order for it to celebrate its function which is to exhibit cultural displays. First and foremost building must reflect the identity of the Swazi society, through form, aesthetics and spatial configuration and must bear the history of the place. Symbolism is also an important aspect of such facility, because symbolism carries the

essence, the meanings and interpretations of the particular society. Secondly the interviews expressed the need for a facility which is more adaptable and flexible to both the public and the staff by including spaces that are more sympathetic and more useful to the public such as restaurant, courtyards, theatres which will then be able to allow multi-functionality of the facility. The idea of a multipurpose ensures adaptability and versatility of the building therefore contributing to the effectiveness and usability of the building.

The inability for the spaces to express meaning and function and the size of the building needs to be increased to meet the staff requirements and basic public need in cultural centres.

Buildings of cultural activities must manifest the society's identity an element that is lacking in the museum of Swaziland. The building has not used to its advantage the cultural opportunities offered by the site and the context at which it is built from. Facilities of this nature must express the ability to function as means of indigenous knowledge systems through which the future generations and a society may learn about their past.

5.2.11 Conclusion

Though the building is of a smaller scale it lacks major aspect of functioning as a public building and that has the ability to reflect the society's identity. The above analysis shows the problem of forms with no meaning and the lack of well designed and articulation of ideal circulation throughout the building, spaces that relate to their function. The cultural aspect is pivotal in the making of such buildings and the history of the place gives it in-depth meaning. There is lack of relationship and transition between spaces and the context at which it is built from. The building portrays a foreign image it lacks cultural and traditional relevance.

The analysis shows that buildings must identify with its purpose, activity and the people which it is built for which in this case to educate, reflect the people's identity and ensure

preservation of indigenous knowledge. Though history and tradition is discovered from the past, it may be expressed in more modern and abstract ways that transcends the limitations of time. Buildings must therefore fulfil their functions at the same time be able to give meaning.

Buildings must recognise and acknowledge the context on which they are built. The spaces designed for activities must relate to each other and to the purpose for which they are designed or intended for. Buildings must be experiential, be a journey or tell a story rather than rigid dogma. Because people live in time yet time evolves the buildings architects produced must be significant to the time they were produced yet not be bound by the time itself meaning that they must be timeless futuristic whilst upholding history. This notion suggests that buildings must not be a replica and a repetition of the past. Buildings must show progression.

5.3.1 Historical and social context of case study

Freedom Park was initiated as a place of pilgrimage to commemorate South Africa's commitment to democracy and freedom. Albeit the result of a contentious international competition, Freedom Park is a National Heritage Project endorsed by Parliament and managed by the Freedom Park Trust with former President Nelson Mandela as chief patron of the trust.

It is envisioned that the development of Freedom Park should ultimately create a precinct dedicated to the celebration of South African heritage, a centre of knowledge aimed at creating a deeper understanding of South Africa and its people through the narration of South Africa's geological, pre-colonial, colonial, apartheid and post-apartheid history. It aims to be inclusive of all South Africa's people and will retell South Africa's story because many myths and injustices have hidden the true history of South Africa.

Its mission is to provide pioneering and empowering heritage destination that challenges visitors to reflect upon the past, improve the present and build on the future as a united nation. At the core of this mission is reconciliation and nation building through the use of history, culture, and spirituality.

Site

Fig. 38- Locality Plan



(Source- <http://map.google.co.za>)

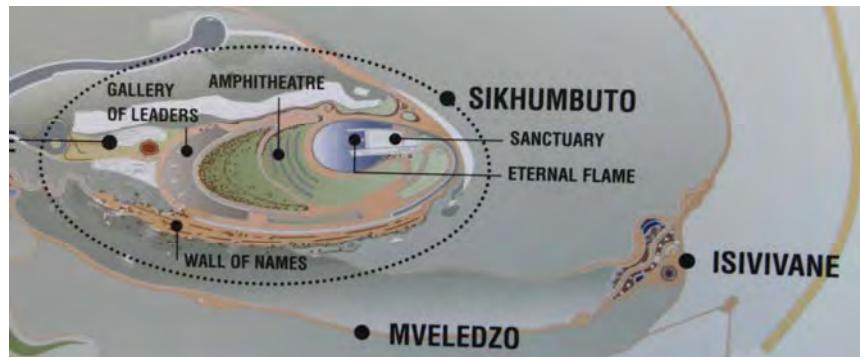
Fig. 39- Site Plan and 3D Model



(Source- Young, 2009: 98)

5.3.2 Design Derivation

The Freedom Park is divided into three phases, first phase being the Garden of Remembrance, second phase being the Place of Remembrance, the third phase is Xapo (the dream) the Pan African Museum which is currently under construction and is due to finish in July 2010.

Fig. 40- Site plan

(Source- Young, 2009: 98)

The first and second phase design was derived from consultation with advisors, traditional healers, experts and drawing on indigenous systems knowledge. The principal design challenge was to introduce a cultural sensibility of local symbolism through a narrative of abstract expression, based on universal rather than particular values. Symbolism was a key governing design factor to the project.

Phase three of the Freedom Park is the Pan African Museum which used the idea of the rock as a metaphoric design generator.

Fig. 41- Phase Three Xapo Museum

(Source- Young, 2009: 98)

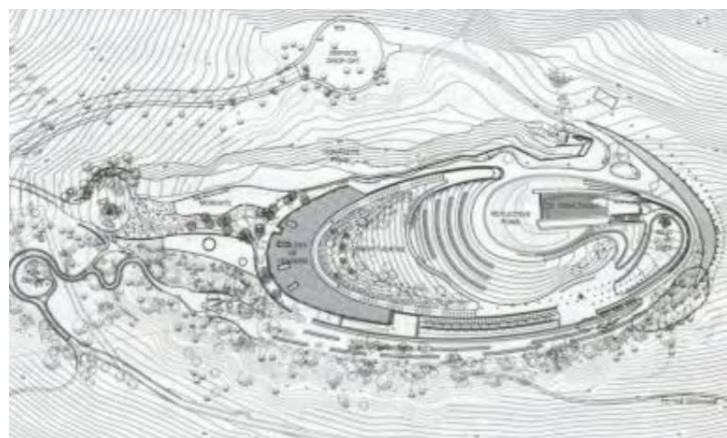
The design takes the metaphor of seven boulders which represent seven epochs and has been laid out in a progression manner with a court yard in between a notion of space for gathering. The three part brief is realised in a ritualistic language of procession, its simplistic overruling parochial connotations. By respecting the subtlety of African symbolism and tactfully realising it on monumental scale, the project was able to capture a shared history and a sensitive subject.

Hence the whole design has been conceived through an African symbolic meaning to give it significance and meaning to the users and the place on which it is built.

5.3.3 Contextual response

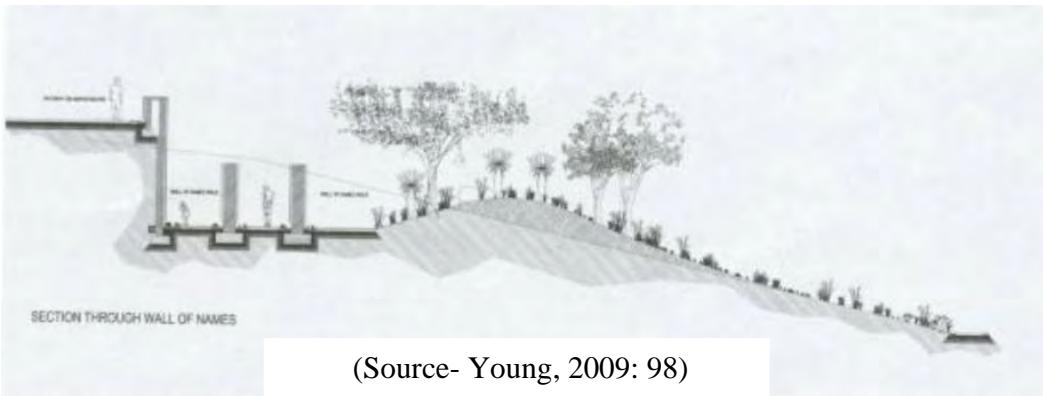
Freedom Park undoubtedly does portray a sense of significance in as far as the context is concerned. The Freedom Park's first phase and second phase the garden of remembrance and the wall of remembrance sits at the peak of the hill, and the building coils itself around the hill responding to its undulating terrain and landscape. Their circular rhythm allows the building to be anchored in place; celebrating and embracing its landscape.

Fig. 42 - Site Plan



(Source- Young, 2009: 98)

Fig. 43 - Typical Cross Section



The layout responds to challenges offered by the contours which enable the building to complement its surrounding, rather than form contrast and a feeling of being imposed. Frank Lloyd Write suggests buildings must show respect and be true to nature. The building manifest the idea that great consideration and a precedent amount of skill was put in; ensuring that the synthesis of the building to its landscape was such that unity and harmony with the landscape was achieved. Natural materials have been used on the project to maintain coherence to the indigenous trees and rocks found in the place. The whole idea of nature and natural materials reflect means to capture the spirit of a place the (genius loci). The designer Chris Kroese emphasised the importance understanding context in order to design a building that becomes part of the context on which it's being built. He added that a building in a way becomes organic responding to the terrain, here form follows meaning (2010: 04: 28).

5.3.4 Symbolism meaning

Fig. 44 - (Isivivane) Symbolising a Sanctuary

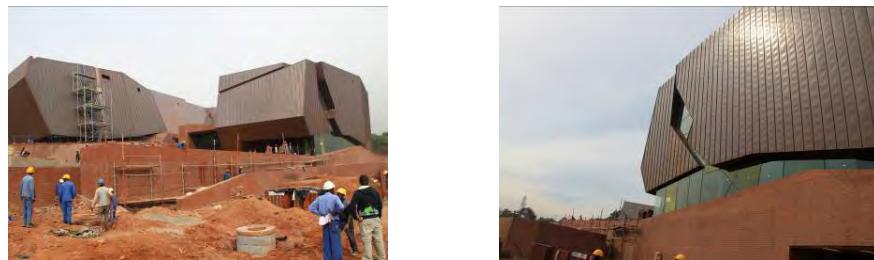


(Source- Author)

The integration of the building to its landscape creates such an effect that one gets a feeling that the building has its umbilical cord from its landscape and that the building grows from the ground. Both the place (ground) and the form are intertwined to form one meaningful interpretation of culture and memory.

Phase three of the project used the idea of seven boulders grouped together, the collection and the use of colour on the project was to avoid the building to project an image of being alien thus bronze had to be used instead of aluminium or any other bright colour. The aim was to attain a colour that would complement the soil found on that site in order to create coherence and complementation to the context.

Fig. 45- Phase Three of Freedom Park (Ixapho museum)



(Source- Author)

The whole Freedom Park is centred on symbolic meanings. Culture is one of the main elements in the formation of the facility therefore symbolism has been deemed to be the main design generator through which the true meaning and the essence of African culture and history would be expressed. The facility is rich with African meaning and interpretation which the genius of the designer enabled the whole meaning and interpretation to be presented in a more abstract manner in order to accommodate diversity.

The Garden of Remembrance consist of an information centre named (isivivane) a commemorative space, isivivane is translated as a cairn of stone which is considered to be a resting place for all who have died in eight different pre-colonial, colonial, and apartheid conflicts. The design for isivivane is derived from indigenous practises of commemoration, underpinned by cultural and spiritual significance.

A combination of a lesaka (burial place) and lekgotla (meeting place) is transcribed into a curvilinear precinct of stark simplicity, defined by boulders. The symbolic use of stone and the purification properties of water, combined with specific plant material, elicit profound meaning. The Place of Remembrance (sikhumbuto) includes a commemorative wall inscribed over 80 000 names of people who died and are honoured. Another place of sanctuary houses an internal flame.

Fig. 46- Galleries under renovations



(Source- Author)

Sikhumbuto is demarcated by lighting steel poles which illuminate at night. These symbolise reeds, and considered spiritual conduits between earth and heaven and signify the emergence of new life. The spiritual place is symbolical of different religions and has seven boulders which have been gathered from the seven regions of South Africa and acts as representation of the people in these regions indigenous plants have also been gathered from these place.

Fig. 47- Seven stones representing the Provinces of South Africa



(Source- Young, 2009: 99)

The last part the Pan African Museum also has a symbolical meaning, its design emanates from a historical background. The location and its composition links back to the idea that ancient African settlement would establish themselves at the peak of the hills in bid to ensure security and surveillance.

Fig. 48- Concept Derivation



(Source- GAPP Newsletter, 2010: 6)

When besieged by enemies from the foot of the mountains they would roll huge stones towards their enemies and the stones would form piles at the foot of the mountains, the reason why the museum is in the form of boulders arranged as a pile of stones gathered together at the foot of the hill Salvokop. The seven boulders represent seven regions of South Africa, and represent seven epochs, the earth, the ancestors, the peopling, the colonization and resistance, the industrialization and urbanization, nationalism and struggle, national building and continent building, and indigenous knowledge systems, and a courtyard signifying a place of gathering

5.3.5 Spatial configuration and relationships

Spaces can configure that the whole building does not just become an envelope with rigid spaces but that the spaces are interlinked to achieve a sense of progression. That spatial configuration is such that the building creates curiosity and interest to the user and the spaces are also articulated to create a journey through the building and each of the spaces tells a story, a genius undertaking for a building of this nature. Apart from the spaces being experiential, they are flexible, fluid and open an idea that enables multi-functionality of space and use. The spaces are organic in nature and the curvilinear allow easy movement throughout the facility.

Fig. 49- Curvilinear Wall



(Source- Author)

The spatial relationship is achieved through outdoor and indoor spaces, courtyards, amphitheatre and spatial place. All are linked by well manicured walkways creating a

smooth transition of spaces each with symbolical meaning. Both the ground and the building become one as some spaces are engraved in the ground with concrete roof and garden on top to give a natural feel.

Spaces are defined by the activities that take place in each and every space of the building. In the museum the space is free for the easy access to activities to be placed. Open and fluid space allows easy movement through the building and creates suitable spaces for the purpose which is to exhibit arts.

Fig. 50- Spaces expressing fluidity



(Source- Author)

5.3.6 Form expression

Both forms for the Freedom Park and Pan African museum express artistic impression and are organic, symbolic, monumental and sculptural.

Fig. 51- Model showing form articulation



(Source- Author)

Although based on historical and origin they posses a futuristic impression which was achieved through an abstract approach to avoid literal interpretation and replication of

form. The forms are derived from meaning more than function as (Meis van der Rohe) puts it emphasising the idea that form without meaning is void.

5.3.7 Quality of spaces

Most of the spaces are open for ensure adaptability and both light and air fenestration, and movement. Open spaces allow flexibility in terms of use and movement. The idea of less is more offers the user the opportunity to manipulate space according to what he wants it to be and what he wants it to be used for ensuring maximum usability of space.

Fig. 52- Flexible open spaces



(Source- Author)

Maximum height has been achieved to allow easy movement of air through the building. Combined natural and artificial light is used in a more artistic way to ensure both sufficient light and artistic impression throughout the building. Means to ensure and to control light emission to both facilities prove the ingenious of the designers.

Galleries require control ensuring adequate and controlled light in exhibition to achieve the right quality of light to displays. The museums do not have corridors a means to avoid long narrow dark walkways and each gallery leads to an open space.

5.3.8 Materials and technology

The Freedom Park facility constitutes of natural materials, stone, timber, concrete, glass for lighting, water for purification. All these materials create subtleness and a feel of contemporary, and idea of using materials to express natural feel and site relevance. The use of natural materials allows the building to project an image of honesty and pure expressing connection with nature.

Fig. 53- Use of natural materials



(Source- Author)

The Freedom Park uses the combination of off shutter concrete and natural material, the museum uses the bronze material steel frame for the structure and rhino board for the interior this idea gives an impression of heaviness yet the whole method is a simple conventional method of dry walling.

5.3.9 Environmental impact.

The use of natural materials ensures energy saving strategies and materials that are eco-friendly. Since most of the materials are local they are easily available and render the project eco-friendly, whilst the articulation of spaces both open indoor and outdoor space create an environment that is socially sustainable. Somehow the project reflects the theory of critical regionalism yet it is organic in nature. Through the input of the above consideration there has been minimum interference and impacts to the environment making the project achieve a highly sustainable environment.

5.3.10 Empirical Data:

The collection of data and the findings highlight the importance of how the application of facilities of cultural and historical meaning should be articulated. It also reveals how symbolic meaning may inform forms and how forms may be articulated such that it blends with its surrounding. History and tradition may influence modern forms yet forms themselves must transcend their past to inform the future. Forms may in a way be means of passing out knowledge and may be used as a means to preserve indigenous knowledge. Freedom Park is able to convey vividly the cultural meaning and the data shows that the project does meet its usability requirements.

5.3.11 Conclusion

Having analysed the building the findings are that Freedom Park does reflect a futuristic building intermesh of its representation and symbolic interpretations which is more abstract in the sense that it is not literal and obvious yet it is somehow a celebration of the diverse cultures of the past history. It is a building which narrates a story and forming part of the landscape, it is a perfect model for culturally inspired facility which has to reflect identity, culture and tradition.

Buildings must present themselves as living organism not as static entities, culture and tradition are not static but are living organism though which people identifies themselves hence an architecture that identifies itself with culture and tradition will be that which strives for a continuous progression, a relevant and timeless and futuristic presentation to attain relevance and adaptability to all generations whilst celebrating its past.

Freedom Park is an embodiment of cultural, traditional, and spiritual sanctity, rich with symbolic meanings and interpretations. The building reflects an organic architecture as a direct response to the context it is built on. The spaces are in a curvilinear form speaking the language of the terrain. The building forms part of its landscape in a more symbolic

way, it is an epitome of an African culture and the memory of the past. It celebrates the human spirits of those who passed in the struggle.

Every space has meaning and the concepts we conceive of historic attributes translated in a more abstract way, a notion that translate architecture into a meaningful art of expression. The building is part of its landscape and encapsulates coils and wraps itself in a defence manner yet allowing experience and progression through space. Particular attention is paid on the use of materials rendering the project sustainable and eco-friendly.

The analysis shows that buildings may transcend their basic use which is to accommodate and become systems of preserving knowledge. Although history and tradition is discovered from the past, it may be expressed in more modern and abstract ways that transcend the limitations of time. Buildings must of course fulfil functions at the same time and be able to interpret themselves or give meaning. Freedom Park demonstrates these qualities. The idea that form follows function and that function must respond to meaning is in inevitable.

Buildings must recognise and acknowledge the context which they are built from. The spaces designed for activities must relate to each other and to the purpose for which they are designed or intended for. Buildings must be experiential, be a journey or tell a story rather than ridged dogma. Because people live in time yet time evolves the buildings architects produced must be significant to the time they were produced yet not be bound by the time itself meaning that they must be timeless futuristic whilst upholding history. This notion suggests that buildings must not be a replica and a repetition of the past hence buildings must show progression.

A building that ceases to be just a building but one which narrates a story is a perfect model for such facilities which have to reflect identity, culture and tradition. It becomes a template and a perfect prototype of preservation through form.

Buildings must present themselves as living organism not as static entities, culture and tradition are not static but are living organism though which people identify themselves hence an architecture that identifies itself with culture and tradition will be one that strives for a continuous progression, a relevant and timeless and futuristic presentation to attain relevance and adaptability to all generations whilst celebrating its past.

5.4.1 Historical and social context of case study

The Cradle of Human Kind is declared one of the world's heritage site. The translation of Maropeng means "the place we all come from". The Cradle of Human Kind is a heritage site which aims is to celebrate the life history of humankind. Found in the provinces of Gauteng and North West, the fossil sites cover an area of 47 000 hectares. The remains of ancient forms of animals, plants and hominids - our early ancestors and their relatives - are captured in a bed of dolomite deposited around 2.5-billion years ago. Lying in the centre of the Cradle area, Maropeng brings to life the history of humankind in an entertaining and educative way. It offers interactive displays, restaurants, a marketplace, an outdoor amphitheatre and, from March 2006, a 24-bedroom five-star hotel.

Maropeng's interpretation centre enables visitors to explore, by means of zones, the history of the earth and humankind. It lies on the side of a hill where ancient rocky outcrops will mark the setting of a huge tear-shaped burial mound, referred to as the Tumulus: a partly disguised grassy mound 20m high and 35m wide. The first of its kind in the world, the Tumulus is designed to look like an ancient burial mound from the front and, when exiting on the other side, a very modern structure from the rear. The architecture aims to symbolize the journey through time from our ancient origins to today.

The Site



Fig. 54- Site plan

(Source- Bremner, 2006: 13)

5.4.2 Concept derivation

The concept is of a tear drop the idea that is symbolic to the people that died many years and whose bones are being discovered. The strange teardrop-shaped mound is 20m in height and 35m in diameter, and was purposely positioned to offer great views of the Magaliesberg and Witwatersberg Mountain.

According to Chris Kroese the design architect, the idea behind the Tumulus follows the overriding theme of discovery, and is intended to encapsulate the essence of the voyage by depicting the past, the present, and the future through architecture. The idea of discovery, being all important, starts when visitors approach Maropeng. The building is centered around the experience and discovery.

5.4.3 Form and landscape

The land as a site has spiritual connotations; hence the building was designed such that it engages with the ground to commemorate its meaning which deals with those discoveries to the human past human skulls. The building is somehow buried to the ground and imagines itself as part of its landscape; grass flows uninterrupted under it, its materials reflect or imitate the colours of the earth.

Fig. 55- the building integrating with the landscape



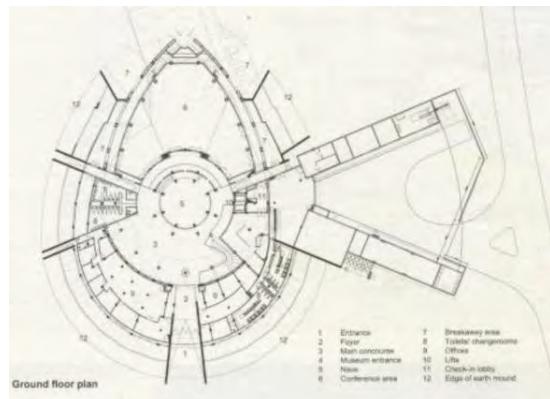
(Source- <http://www.maropeng.co.za>)

The landscape, views, spatial sequence and the building has been orchestrated to convey both the sense of ancientness and sacredness associated with the architectures of earlier civilisation, and a world of hyper-modernism. Views were of prime importance with regard to placing of accommodation in the building. All the restaurants open up to capture the beautiful views from the mountains of Mahalisberg, an idea that transforms the viewer's mood emotionally. This ideal placing merges the building and its landscape and enables the building to capture the spirit of the place "genius loci".

Design layout:

The design is centred on a focal point which is a triple storey grand foyer and the rest of the accommodation radiates around the centre of the building.

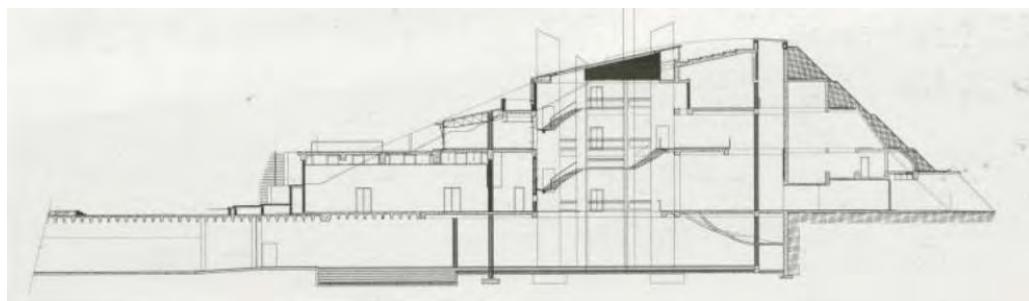
Fig. 56- Site plan



(Source- Nel, 2006: 27)

The rest of the accommodation is forming a linkage to the central part of the building with other accommodation embedded in the ground forming part of the landscape.

Fig. 57- Typical section



(Source- Nel, 2006: 27)

5.4.4 Symbolic meanings

The transition in form and materials symbolises the transition from the past to the future. The past is symbolised by rich, earth tones such as bronze, copper, orange, and earthy motifs, organic shapes and geometric patterns. In contrast, the future is symbolised by the clean, sleek lines of furniture, abstract art, textured fabrics, brushed stainless and natural timber.

Merging the past and future, the old and the new

Maropeng is defined by its main building, called the Tumulus which appears like an ancient burial mound rising from the earth. As one journeys through the interior, the Tumulus is transformed with high-tech and futuristic form from the other side. The transition of the Tumulus follows the overriding theme of discovery, and is intended to encapsulate the essence of the voyage by depicting the past, the present and the future through architecture.

Fig. 58- The tumulus a synthesis of nature and hi-tech



(Source- Nel, 2006: 26)

The idea of discovery, being all-important, starts when visitors approach Maropeng, with the building being partly disguised. According to Chris Kroese the idea behind the Tumulus follows overriding theme of discovery, and is intended to encapsulate the essence of the voyage by depicting the past, the present, and the future through architecture. The past is once again symbolised by rich, earthy tones such as bronze, copper, orange, and earthy motifs, organic shapes, and geometric patterns. In contrast, the

future is symbolised by clean, sleek lines of the future, abstract art, textured fabrics, brushed stainless steel and natural timber.

5.4.5 Usage

The multiplicities of the spaces make the building to be more versatile and sustainable. The vast difference of spaces under the same facility allows for more usability and functions. The variety of functions become a major boost to the usability of the facility and draws people of different ages and allows interaction between people and the building itself. The building consists of;

- Visitors' centre.
- Conference facilities for up to 350 delegates.
- Three restaurants.
- Luxury boutique hotel with views over a private game farm.
- Outdoor 5 000-seat events amphitheatre.
- Accommodation for 120 schoolchildren.
- Retail food outlets.
- Destination retail store.
- Visitor information points.
- Arts and crafts marketplace.
- Observation deck.
- Ample parking for cars and coaches.

Fig. 59- Versatility of space



(Source- <http://www.maropeng.co.za>)

5.4.6 Empirical Data:

In an interview with Chris Kroeser the designer of both the Freedom Park and the Maropeng the Cradle of Human kind, he expressed the need and the importance of buildings to acknowledge the context in which they are built from and to consider the fact that culture is not a static entity and the ability to design in such a way they will project movement in space and time whilst being relevant to humans needs. It is imperative that a designer must first understand the attribute or the makeup of a site and then work with the site instead of against the site. He state that:

“When designing one must be more of an observer, allowing one’s self to see let the building become what it wants to be”.

5.4.7 Conclusion

Maropeng is an appropriate model of a building that displays the dynamism of transition from the past into the future and reflects a futuristic presentation. The building aims to portray a sense of discovery offered by the context into the modern futuristic development. The building’s ability to evoke a sense of discovery and expectation through form and spatial organisation demonstrate the ingenious of the designers in understanding the brief, site and the history of the site. The building is a symbol of synthesised past and the future integrated to transcend the boundaries of time. The building liberates and transform through its journey to discovery, each space has its discoveries making the building exciting and engaging to its users. The spatial accommodation suggests an experiential journey and its spaces are interactive. It is a building that has been a product function presented in a more futuristic manner, emphasising the notion that buildings must outlive their time. Lastly the building merges with the ground in a more dynamic way absorbing every bit of its qualities offered by its surrounding context.

The multipurpose aspect of the building ensures the social aspect of spaces that allow multiple activities and interactive spaces. Cultural centres of today must integrate these principles to achieve good functional and quality spaces.

CHAPTER 6 ANALYSIS AND DISCUSSION

6.1.1 Concepts and design derivation

From the analysis provided in chapter five it is clear through the illustrations and the demonstrations provided that the underlying principle of generating concept that deals with cultural factors needs to understand the history and the background of a society and place remains unquestionable.

The cultural and traditional connotation of the people and its setting plays a pivotal role in both the generating and the development of a concept. The ingredients of historical imputes supersede the functional approach of designing cultural facilities this is not to say that it disregards function but the historical attribute become prime informers in deriving the design concept.

History carries the meaning and the purpose of intentions. This notion suggests the idea that environments are a product of humans' existence and needs, and those environments themselves posses natural attributes that must be adhered to in order to achieve coherence and balance between man and place. The place where the concepts and designs take place must possess spiritual and historical meanings and interpretations. This notion therefore implies that in order to be able to formulate modern architecture as a meaningful contribution that adds value to the environment, an understanding of society's values, and beliefs is of prime importance. Concepts with meaning will either uplift, celebrate, or honouring history's past. These meanings are then translated to inform a much more abstract or futuristic manner, such engagement welcomes the idea that culture and tradition is not a stale entity but is an evolving living organism. Through symbolic interpretations concepts and ideas are presented.

6.1.2 Context and Siting

Context and site become an important element in the designing of environments and the studies carried out play a major significant role. The absorption and understanding of the site, working with it not against yields remarkable results in the creation of culturally supported environments. Context constitutes certain important properties that govern humans. It is the umbilical cord of human beings; context provides a setting for people and designers to engage with.

In the study above the projects demonstrate the importance of fusing a building to its landscape and how a building is designed so that acknowledgement and respect to context is achieved. The nature of the environment and the terrain offers maximum opportunities for intervention through built form. Apart from climate, location and orientation, context offers spiritual meaning to a place which guides man's intentions and motives. The projects express ways to capture the spirit of a place the genius loci and how both building and its context can be synthesised to create a place with meaning. Colour and materials are used in a way that blends well with its context.

6.1.3 Form expression

The form articulation is symbolical of certain beliefs, customs or historical background of the people, place or events that took place in the past presented in the future in a more futuristic manner. The buildings manifest the essence of time as a continued evolving organ, the buildings acknowledge time in much more dignified ways whilst liberating themselves from the limitations imposed by the past always seeking a progressive means to convey the past meanings. The forms by virtue of being expressive of either culture, identity or a commemoration of certain events become monumental landmarks. The qualities and features stimulate viewers' interest. The buildings themselves tell a story and become an experiential journey of discovery.

6.1.4 Art as symbol of expression

Certain artefacts and motifs are used to express significant meaning and identity through art. This notion allows relativity through form and creates a platform through which man and form can interact in much more deeper and dynamic ways. People relate to these artistic impressions hence art becomes a catalyst for people to interact and engage with built form. Art may be symbolic of the past or the future depending on the message being conveyed. Different artworks and symbols have different meanings and interpretations. Hence art expression project's meaning to people and become a representation of certain events and beliefs

6.1.5 Spatial articulation

The overall spaces signify something and represent certain meaning. Spatial articulation is in a progression manner and the spaces must be more of an experiential journey full of discovery and encounters. The layouts are not restricted to formality but respond to the context and the meaning of each space. The study illustrate the importance of clear transitional spaces, the need for natural light in public spaces and the clear definition of space are designed to suit activities. Spaces are defined for various activities. It is however recommended that the spaces become flexible and adaptable to diverse use to allow the multi-functionality of activities. The spaces must also express the cultural identity or the intentions for the desired purpose of the building in order for the building itself to become a means of communication and source of preserving and passing knowledge.

6.1.6 Environmental impact

Such buildings show minimum environmental interference by working with the site and its context. The use of natural and local materials offers a sustainable approach not only to the architecture itself but with the environment.

6.1.7 A Futuristic Approach to Designs

Technology and materials have been used to express a futurist representation. The past being represented by conventional ways and methods on constructions and the future represented by the modern technological material and methods in a more abstract manner to give a timeless meaning. The aim is to create architecture that passes people's identity without replicating and repeating the past primitive forms and to produce a meaningful architecture that does not portray literal translation but a progressive, dynamic architecture that generations will relate to and understand their past without conforming to it.

CHAPTER 7 CONCLUSION AND RECOMMENDATIONS

In conclusion all of the literature, precedent studies and case studies, reveals the important role played by architecture in the preservation of culture and identity through built environment. It is evident that architecture has so many responsibilities and meaningful contribution to make in the built environment. Built environments must respond to both cultural and traditional needs in order to manifest the identity of a society.

Built form must express cultural as a dynamic since it is not static hence the built form must be compatible and versatile in order that it meet people's needs and demands. Building must respond generously to the context which they are built on. Context and the history of the people must be synthesised to ensure relativity and relevance to the place. Buildings must seek to form continuation with the history and the nature of the landscape. It is also vital that public buildings must achieve a sense of multi-functionality and flexibility in order for the facilities to sustain themselves economically or otherwise.

The aspect of identity is unquestionable when it comes to the building of such centres, Symbolism inevitably becomes of paramount importance in ensuring identity and meaningful interpretations some elements that the people will be identified by. The

relationship between man, culture, and built environment must be attained through built form. Activity remains an important aspect of such designs. The notion that facilities must use activity as a generator for spatial co-ordination and that the spaces must reflect and form identify with the purpose they are intended for. Buildings of such a nature must meet the basic requirements for public spaces, the spatial relationship and transition must promote integration and interaction.

Buildings must express evolution in order that they become compatible with the modern technology and adaptable to all generations. Architecture must express progression in a way that somehow does acknowledge the past. Meaning is important in the formation of built form and environments.

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APPENDIX

Structured Interviews: Researchers

The interviews were aimed at gathering information on the proper articulation of cultural centers and how culture and tradition may be integrated into built environment with the aim to reflect the society's identity. The questionnaires were designed to ascertain the need and the importance of culture and the built environment in preserving identity. The interviews carried out were through the help of:

- Mr. Maziya – The Sobhuza Memorial Park
- Rosemary - Swaziland national Musium (Msamo)
- Thembekile Dlamini - Swaziland National Arts and Culture
- Fonono Dvuba – Swaziland Boarder Adjustment Commette
- Chris Kroeso – (Principal Architect) GAPP Architects and Urban Designers the architect to Freedom Park and Cradle of Human Kind
- The staff and the public.

Research overview.

Culture and tradition

- The role of culture in the formation of environments
- The importance of culturally supportive environments
- How can culture influence the built environments such that it reflects the identity of the people?
- Is there a need to celebrate culture and tradition if so how?
- How can cultural centers be used as a tool to instill indigenous knowledge?

Built environments

- How can built environments be created such that they become systems for indigenous knowledge?
- The significance of history and its influence towards the formation of environments.
- How important is identity and how can built environment reflect the identity of a society without mimicking past traditional forms?
- How can symbolism be expressed in built environments?

Articulation of cultural centers

- Culture evolves with time hence how can tradition be integrated in environments in a way to express progression?
- How can the facility be designed to ensure versatility and flexibility?
- Cultural centers are public buildings, how should be their constitution?