

CHAPTER 2: PHILOSOPHICAL APPROACH AND RESEARCH METHODOLOGY FOR THE CONTEXTUAL STUDY OF ARCHITECTURE

2.1 SUB-PROBLEM 1

Despite the large amount of literature on vernacular architecture, there is no relevant interpretative framework with which to study the selected region, with its particular characteristics. Definitions of architecture exclude vernacular contexts. A philosophical approach thus needs to be identified, and a theoretical base articulated, so that architecture can be viewed eco-systemically within prevalent paradigms of thought and practice.

2.2 HYPOTHESIS 1

In a study of the architecture of the northern riverain Sudan, where little architectural interpretation has been attempted and where institutional architecture is almost non-existent, there is relevance in approaching an architectural inquiry from an eco-systemic, inter-disciplinary viewpoint. Architectural theory, which resonates with the realities of a context, may be the basis for a framework for architectural study relevant to the selected region.

2.3 OUTLINE OF CHAPTER 2

A philosophical approach is identified and articulated. Information sources, issues of language and its implications, artefacts and their classification all influence the final interpretation. Definitions of these are elaborated. The importance and difficulties of using sources from other disciplines are discussed.

As an introduction to the area of study, the issue of why Africa needs to be tackled individually is tackled. This includes the symbolic content of ritual and ceremony. New religions, Islam and Christianity, as well as Western colonialism are discussed as the three major cultural influences in Africa.

Aspects of characteristics of relevant types of African art are identified. The region does not exist in isolation and is therefore viewed within a broader context. An understanding of vernacular architecture exposes the most appropriate unit of study in regional contexts. From this understanding, architecture is thus re-defined and the

northern Sudanese idiom identified. Ultimately, a relevant theoretical basis for the study is achieved.

2.4 METHODS, SOURCES AND SCHOOLS OF THOUGHT

2.4.1 Eco-systems of paradigms

“At certain times in history, specific ways of thinking about the world have predominated. Each particular worldview can be termed a paradigm. Different paradigms may co-exist and overlap.” (Oliver, 2000: 72)

Kuhn (Gelernter, 1995: 269) introduced the term ‘paradigm’ as a universally accepted worldview that is ‘violently’ replaced by another. These revolutionary milestones intercept episodes of peaceful agreement. It is an approach articulated in architectural terms by Fisher (1992) and further articulated in studies at the Department of Architecture, University of Pretoria. As an example, in a study on the early Ionic capital, its founding history is explained as design evolution and the degree of ‘fit’ between this particular architectural element and its paradigmatic context. An understanding of this element, in its built context, is understood as “emanating from an ordered data base” (Bakker, 1999: 4). In a proposal for the teaching of history, Fisher (1993: 10) describes an ‘eco-system of paradigms’, where the prevailing paradigms of various historical episodes can be articulated. This entails the selection of historical milestones, the manifestations of those on a broad spectrum of disciplines, the identification of artefactual material and the development of a relevant vocabulary with which these can be articulated. This study also tries to illuminate transition periods rather than just focus on the points of transition – the milestones. A plurality of simultaneous worldviews is acknowledged where many ideas co-exist at any time. This theme is evident throughout the study.

Artefacts are approached in the sense that no ‘thing’ stands alone, but rather pertains to a whole setting of importance in its interpretation. The world is a collection of inter-dependent entities. Things are what they are by virtue of their relationship to each other. Things or artefacts are further broadened to include intangible concepts and values. After all, Heidegger does equate ‘thinking’ with ‘dwelling’ (Cooper, 1996:92). In 1954, Heidegger (1889-1976) wrote that: we build because we are *dwellers* (Krell, 1977: 326). Therefore artefacts/things, including buildings, make our existence/thinking evident.

2.4.2 Dialectic processes, absolutism and relativism

“You can... never claim that any particular thought is correct for ever and ever. But the thought can be correct from where you stand.” (Gaarder, 1991: 301)

“Knowledge is thus both perceptual and conceptual – the joint product of perceiving and thinking. We can only think what cannot be perceived; we cannot know it.” (Urmson, 1960: 149).

In order to be able to engage with previous bodies of knowledge, the research follows a dialectic process of reasoning and only claims to achieve as much as possible in terms of accuracy. A structured pattern of questioning assists in revealing the meaningfulness of the stated problem and in the testing of the set hypotheses of the dissertation. The ‘truth’ of an interpretation constitutes a concept or synthesis representing a part of a wider framework involving a number of disciplines. Within such a framework, it is difficult to see that a completely ‘untrue’ concept could exist.¹

An antithesis to prevalent ways of approaching architecture in the northern Sudanese region is proposed: the focus is on interpretative, rather than, descriptive research. This is a critical form of analysis. The synthesis of this process will constitute a new thesis for future ‘cycles’ of analysis and research on architecture in the Sudan. As in any scientific investigation, the outcomes of the research are open to debate and re-interpretation. This does not undermine the significance of the study.

This dialectic mode of inquiry, rooted in the rationalist school of thought, is used to give a certain order to inquiry based on experience and perception. The hypotheses have been set according to intuitive analysis and observation. These need to be tested in order to provide a platform for further research.²

¹ According to De Bono (1994: 66), “Absolute truth overrides the reality of complex system interactions.” He explains how truth favours analysis and description rather than creativity and design (De Bono, 1994: 66, 113 and 128).

² Phenomenological reduction requires emptying the consciousness of everything that is derived from scientific inference or rational thinking (Gelernter, 1995: 224). Where this study departs from this way of thinking is in the assumption that this form of inquiry will lead one to absolute pure data of consciousness or authentic reality (ibid). The isolation and study of artefacts through this phenomenological method is deemed important to the study. The difference is in the expected outcome where a philosophical relativism is believed to pertain more to an existential way of thinking. Perhaps the superimposition of a rationalist structure on a phenomenological inquiry will be seen as a contradiction. Yet, it is believed that intuitive perceptions, subjected to academic inquiry is a valid research approach and this is tested in the following dissertation. This study borrows from a wide variety of sources and different schools of thought. This attempt “...to reconcile the subjective self with an objective world.” (ibid, 259) is long-standing. Both Husserl and Descartes would then examine an object by detaching it from its context and examining its essence. An object’s essential attributes are

Blaise Pascal (1623-1662) and Renè Descartes (1596-1650), in the 17th Century, were on either side of this struggle between Rationalism and Existentialism. Descartes' rationalism was opposed to Pascal's view of human life as paradoxical. Descartes' 'method' implied that he could only accept beliefs that were 'clearly and distinctly' true, through logical and mathematical reasoning (Urmson, 1960: 73). On the other hand, Pascal's theories were based on the concept of probability and he attributed the same importance to belief or disbelief, in terms of religious faith, for example, claiming that there is no rational ground for either (Urmson, 1960: 211).³

As Descartes, Georg Wilhelm Friedrich Hegel (1770-1831) believed that a rational understanding of humanity and history could be achieved through dialectic reasoning (Russel, 1979: 702). Again, Søren Kierkegaard (1813-1855) opposed this and as a continuation of Pascal's theory stressed the uncertainty of the human situation.⁴ In either case, the Existential ideas of 'choice' and the focus on each individual's unique vocation are what determine the difference between the Rationalists and the Existentialists.⁵

Of major importance in this struggle between the two ways of thought are the writings of Edmund Husserl (1859-1938) and his ideas on Phenomenology. There is a thin line between Existentialism and Phenomenology, the latter defined as the descriptive analysis of subjective processes, objects as 'constituted' in consciousness (Urmson, 1960: 133).

Husserl's 'intuitive study of essences', referred to as the 'study of things themselves', means that everything, including thoughts, can be made evident through

thus identified through 'phenomenological reduction' (Hale, 2000: 96 and Urmson, 1960: 217). In this study, it is attempted to not only detach physical objects and examine them, but also intangible aspects of a culture such as feelings, beliefs and attitudes: "...the organisation of the environment is a mental act before it is a physical one..." (Rapoport, 1977: 15).

³ This approach pertains to Empiricist thought in that it is the "...body that brings us into touch with the world of external reality." (Russell, 1979: 151); Kant's proposition states that we cannot 'know' without the help of sense-perception (ibid. 679).

⁴ Kierkegaard strongly attacks Hegel's systematic analysis of existence (Urmson, 1960: 152), declaring that this is not feasible, since an understanding of existence cannot be systematically constructed.

⁵ As the age-old adage goes, you only see what you know. You know what can be 'named', thus, we can understand our relationship to an environment in terms the language we use to describe it. Structuralism, as a philosophy of language, would explain how the built environment acquires 'meaning', thus strong links can be found between language and meaning in the built environment.

phenomenological enquiry. This type of enquiry focuses on objects as they are encountered.⁶ A phenomenological approach to architecture involves a 'return to things', as opposed to abstractions and mental constructs of the rationalists. *Things* consist not only in the concrete phenomena of our life world, but also comprise more intangible phenomena such as feelings (Norberg-Schulz, 1976:3). A real or authentic *thing* concretises or reveals life in its various aspects.

Heidegger's 'environmental phenomenology' introduces natural elements and philosophy to describe places, an approach elaborated by Norberg-Schulz (1980). Attention to the character of dwellings and how they are made is important in achieving a phenomenology of place. Phenomenological approaches bring the idea of existence, the notion of doubt/uncertainty, as well as faith in the correctness of choice and individual experience, to architecture.

This concept is employed in the study by relating visible aspects of built culture to the particular location and people's understanding of place. It makes a valuable contribution, in combination with other theories, in achieving a meaningful interpretation of people's interaction with a particular landscape.

2.4.3 Phenomenology of the body

"Just as we think architecture with our bodies, we think our bodies through architecture." (Frascari, 1991: 1)

Maurice Merleau-Ponty (1906-1961) brought to phenomenology the idea of the 'lived body'. For this philosopher, consciousness is not just something that goes on in our heads. Rather, our intentional consciousness is experienced in and through our bodies. He believed that the body, as a living organism, by which we 'body-forth' our possibilities in the world. A person's intentional existence is lived through the body. We understand the world through understanding our own bodies. We project onto the world our understanding of the body, and this has crucial spatial manifestations for any research into place making patterns.

⁶ Drawing on Immanuel Kant (1724-1804), who first distinguished between 'perceiving' and 'thinking', the phenomenological approach identifies 'things' through experience rather than description. It focuses on cognition and perception. That is why it is of such great value to architectural thinking. There is an actual real world that surrounds us; we perceive identically, yet cognition is individual (Rapoport, 1977:4).

Taking the above into consideration, it becomes possible to understand apparently ambiguous 'things' through our understanding of the body, as we tend to project onto the world our perceived body images.

Inscription of perceived universal and social order on the body are extended onto clothes, shelter and ultimately into place-making practices. This is not a unique practice. Quatremère de Quincy's (1772-1849) theory of type (hut/tent/cave), discussed later, and his theory of imitation explains abstract and direct imitation of nature. Lavin elaborates:

"When architecture was considered to be imitative, the path to its natural model was almost always described as indirect: thus the human figure became the model of the orders through its reduction to a system of proportion, or a central plan imitated the divinity by reproducing its perfection through geometry." (1992: 106)

Man imitated his form through proportion systems, in settlement patterns, architectural forms and other made objects. Abstract human qualities are sometimes ascribed to buildings (Lavin, 1992: 146). Anthropomorphism, the extension of human characteristics and attributes to buildings and edifices – has long been a part of architectural practice and theory. Representation of architecture in bodies, and of bodies in architecture, is first known with Vitruvius in the First century B.C., in his analogies between the proportions of the human body and buildings (anthropometric proportions). He narrates methods of anthropomorphic practice in Hellenistic-Roman tradition (Morgan, 1960: 72 and Frascari, 1991: 1). While it may not be a universal trait, anthropomorphism in architectural form and settlement layout are also known to be prevalent in specific African environments.

This phenomenon is extremely important to the particular case study of this dissertation where ideas of 'body' have profound bearing on various forms of cultural expression. The seclusion of women, sub-divisions within the home and movement patterns of people in a settlement are strongly inter-related and they are all reflections of peoples' perceptions of the differences between men and women expressed through their body images and the creation of boundaries around the body.

These boundaries are a response to human activity. They do not necessarily have to be static and may be dynamic and changeable, as will later be discussed. Clothes

and shelter are seen to mediate between the body and the environment. These boundaries protect/hide or express/accentuate accepted notions of 'body'. The body is constantly in motion. This is elaborated by Klinck (2002: 71) and represented diagrammatically below:

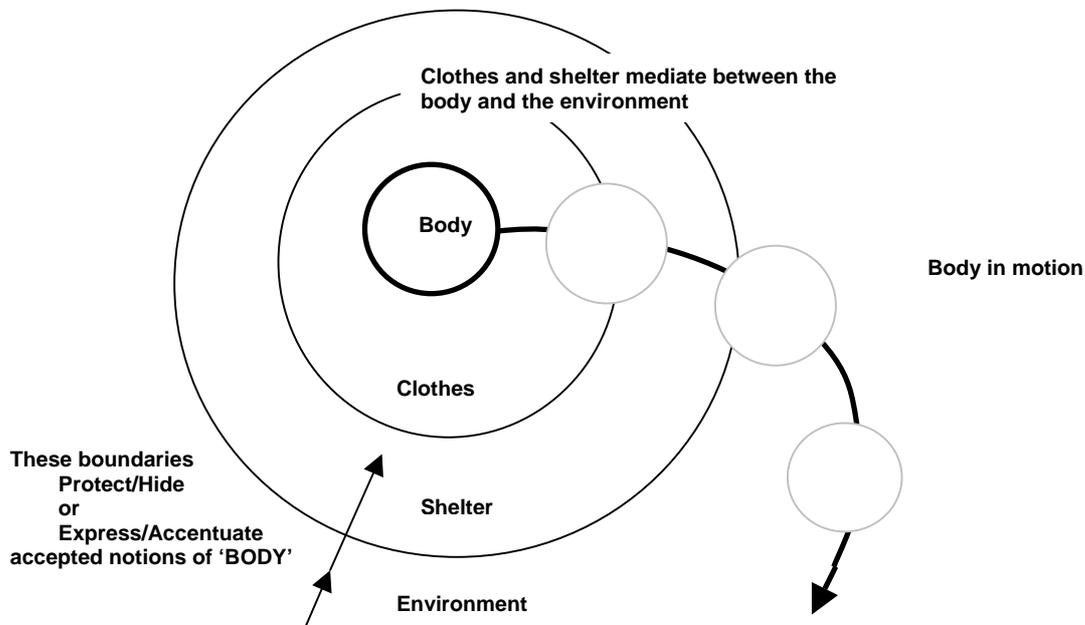


Fig. 2.1 Diagram generated by the author from writing of Klinck (2003: 71)

2.4.4 Recapitulation

Thus, the philosophical setting of this enquiry is articulated. Thinking is equated with dwelling; therefore the tangible becomes a representation of the intangible. Existential exploration is believed to lead to a sense of belonging through making existence evident. Things come into consciousness through experience rather than description. For these reasons the acceptance of the value of subjective understanding implies a focus on experience and choice rather than abstract constructs only. The perception of the body is seen as central to this construct.

To enable this approach to the research, several factors need to be looked at in terms of the sources, methods of analysis and strengths and shortcomings. These are tackled below.

2.5 SOURCES, LANGUAGE, CLASSIFICATION AND INTERPRETATION

2.5.1 Information sources

Bonta (1979: 147-148) explains how an author's motives, beliefs, values and biases can influence the assessment and interpretation of a context, as well as what is selected for inclusion in an interpretative text. He explains that interpretation is also influenced by the 'channels used to gain information'. The approach of this thesis focuses on analysis of a context through various texts and photographic images. The subject is included in the interpretation. These written and pictorial materials have not been produced consciously to study the built environment.⁷

2.5.2 Language

"Being able to use words properly was a great advantage, for the more words you knew the meaning of, the better you could think." (Holm, 1965: 83)

One reason for subjectivity in interpretation is due to the influence of the language being used in a selected text. Language is not only a communicative tool, but also a 'thinking' tool. It reflects thought processes, values and attitudes. Edmund Leach explains Claude Levi-Strauss' understanding of language:

"At one level it allows man to communicate and form social relations and at another it is an essential element in the mysterious process we call 'thinking', in that we must first categorise our environment and then represent these categories by symbols ('elements' of language, 'words') before we can 'think' about them." (Brawn, 1991: 13).

Price explains it as follows:

"Language is not a window onto the real world but is, rather, the stuff of thought itself. Individuals are born into a society which already contains sets of institutions, practices and a common language from which the individuals construct the world and themselves." (1984: 11).

Detecting certain terminology in descriptive texts, and how it is used, can become an effective tool in constructing a description of a context. "One cannot separate what is said from the manner of saying" (Hale, 2000: 94). This argument can be extended to understanding the meaning of architecture. Architectural meaning construction is unnecessarily split into a dichotomy between material/functional constructs and

⁷ This has been done previously to study vernacular contexts, most notably by Amos Rapoport (1982: 11). Being drawn into the interpretation of the text or image (as an artefact in itself), rather than the context that it is supposed to portray, is a possibility. An individual distinctive process of selection and consequential analysis is not seen as a shortcoming. It is perceived to enrich the study.

social expression. The two cannot be separated. The social aspect of building and space-use patterns (what is being expressed) cannot be separated from the physical and spatial concretisation of these aspects (visible/material manner of expression).

It was Quatremère de Quincy who first introduced the idea of architecture as language, which reflects societal meanings – a way of thinking that originated in the 18th Century. Quatremère's core theory, the link between architecture, society and language, can be traced back to Vitruvius (Lavin, 1992: 60). Structuralist analysis cannot provide a complete representation of a context – nevertheless, while it is not used as a core method for exploration in this study, is deemed useful in providing a temporary view of a series of specifically identified, discernable hierarchical systems. The structural linkages between systems can then be explored within an ecosystemic construct, which allows for inclusion of more non-structuralist modes of understanding.

2.5.3 Artefacts and their classifications

In Structuralist terms, any artefact can be viewed as a signifier, what it is, and a signified, what 'idea' it holds. This analysis constitutes the science of Semiology developed by Ferdinand de Saussure (d. 1916) and applied by the anthropologist Lévi-Strauss in cultural analysis. Reality is never the most obvious – meaning emerges from the way that basic units are combined into systems (Hale, 2000: 136-137). Lévi-Strauss reacted to the subjectivity of Existentialism by an excessive determinism aimed at seeking a more 'objective means of analysing and interpreting reality' (Hale, 2000: 139). Roland Barthes (1915-1980) also influenced by Structuralist thinking, yet questioning the determinist nature of Lévi-Strauss, interpreted words either by category or position within a sentence. The "syntagmatic" (sequential) is contrasted with the "systematic" (categorical) approach (Hale, 2000: 139 and 141).

The gridded structure showing the elements of semiology, developed by Barthes (portrayed by Hale, 2000: 140 and Leach, 1974: 49), has been adapted to the requirements of this particular study:

Language/Code	System Parts of speech nouns, verbs	Syntagm Sentence
Clothes/Garment System	Set of pieces that cannot be worn together, variation corresponds to a change in meaning	Juxtaposition in the same type of dress of different elements
Food System	Set of foodstuffs	Sequence of dishes chosen
House/Family Accommodation System	Set of stylistic variations of the same layout/form/materials – selection is based on meaning	Juxtaposition of different layouts/form/materials in the same contexts
Furniture System	Stylistic varieties of a single piece	Juxtaposition of different pieces in the same place
Architecture System	Variations in style of a single element of a building	Sequence of the details at the level of the whole building
Settlement Village/Town Rural/Urban System	Variations in settlement layout and relation of buildings to each other and to streets and open spaces	Sequence of the buildings at the level of the whole settlement

Table 2.1 Constituents of the tangible culture of a people.

The sum of these languages/codes constitutes a chosen or perceived range of the tangible culture of a people. How these tangible aspects of a culture are intertwined with intangible constructs is elaborated later. According to Levi-Strauss, when we construct artificial things, devise ceremonies or write histories, we are imitating our “apprehension of nature: the products of our culture are segmented and ordered in the same way as we suppose the products of nature to be segmented and ordered.” (Leach, 1974: 16). Thus a method of analysis is formulated where:

- the phenomenon to be studied is defined in relation to two or more terms
- a table is constructed of possible permutations of these terms
- connections are analysed

This method is used in structuring concepts dealing with tangible/intangible artefacts. The quest for order in our understanding of artefacts influences our attempts in the search for the origins of artefacts.

2.5.4 The origins of artefacts

“The ‘whatness’ of an object can be learned through the ‘whyness’ of it.... knowledge about an object is based on understanding or recognizing the causes of that object.”
(Turan, 1990: 9)

Turan (1990: 9) explains how understanding the artefact through material, the form into which material enters and its use as insufficient because it only applies to the appearance of an object. The social connotations embodied in any artefact comprise

a part of the three structures of the artefact as explained by Thieme and Eicher (1987: 122-123).⁸

The design disciplines have always borrowed from other disciplines in an attempt to achieve something tangible, as design process (as distinct from its products), is a somewhat obscure activity (Osman 1996: 42). Some researchers refer to biology or sociology to explain the built culture of a people. Gottfried Semper (1803-1879) had a notion of architecture that assumes that: "...as in biology, the search for origins was a search for laws; architecture ought to have these too." (Brawne, 1991: 17).

Rykwert (1972: 30) elaborates on Semper's method: "...it certainly shows a positivist way of attacking the problem; indeed when Semper comes to classify artefacts, he classifies them by their feel and durability."⁹ Semper proceeds to identify the tent as the primary form of the house. Quatremère searches for origins of built artefacts in the way that people acquired their food. The first homes of agriculturalists, hunters or herders are identified as the hut, cave or tent simultaneously (Lavin, 1992: 41). This aspect is tackled critically in a later section.

The origin of form in architecture has always been a tantalising aspect for researchers. Perhaps before attempting to analyse form, a method of classification needs to be identified.

2.5.5 More on Classification – the Concept of Multiple Characteristics

"Any grading system is meaningless... There is one way to understand another culture. Living it. Moving into it... At some point understanding may come. It will always be wordless. The moment you grasp what is foreign, you will lose the urge to explain it. To explain a phenomenon is to distance yourself from it." (Høeg, 204)

Classifications can be historical, stylistic or typological (Bonta, 1979: 167). He explains that:

⁸ Where access to the artefacts themselves is not possible the researcher uses the following structures: iconic structure, the photograph, and in descriptive texts, the syntax. The visual image may convey information not easily readable from descriptive texts. This is the method used in this study.

⁹ He proceeds to explain how Semper's categories correspond to four groups of trades: weaving, ceramics, carpentry and masonry. Deducing, thus, that the first artefact is a knot or a daisy chain. While this study does not ascribe to the positivist attitude espoused by Semper, the idea of classification is employed to be able to locate the architecture of the region in a wider context and to be able to relate it to similar building practices.

“A corpus of buildings with geographical boundaries – such as an entire city or a section of it – may seem more manageable than one with stylistic boundaries... Geographical areas, even small ones, usually display a variety of different expressive systems juxtaposed against each other... The same is true also of chronological units such as centuries or decades. The locus of the expressive system, in my view, lies in the interpretations.” (Bonta, 1979: 223).

Amos Rapoport's influential essay, “Defining Vernacular Design”, of 1990, focuses on the influence of culture on space use, and the influence of space use on architecture from a cross-cultural perspective.¹⁰

Rapoport further describes 3 taxonomies using Multiple Characteristics:

- Epistemic (properties of a phenomenon)
- Genetic (presumed causes of a phenomenon)
- Functional (presumed effects of a phenomenon)

He explains how classifications and taxonomies have heuristic value and are based on order and generalisation. It is impossible to deal with wholes, therefore the need to dismantle and decompose (before reassembling) (Rapoport, 1990: 69. this concept is further explained in Rapoport, 1990, 54-55). Epistemic classifications are then divided into:

- Classical – based on various intuitively grouped characteristics.
- Numerical – polythetic and quantitative based on numerous carefully defined characteristics. (Rapoport, 1990: 70)

Of interest is the shift from monothetic to polythetic, or single to multiple, characteristics that is described in terms of the various fields such as archaeology or science. The convergence of the various disciplines means the rejection of monothetic classifications.

Rapoport's main premise is that it is not possible to use a single characteristic to distinguish among entities as complex as built environments and that “...multiple characteristics become more useful the less clear-cut the case.” (Rapoport, 1990: 71. “A framework for studying vernacular design” by Rapoport, 1999: 60, is also referred to). In complex cases, Rapoport proposes that study begins with Intuitive Gestalt

¹⁰ This assists in the interpretative process. Different cultures are compared in terms of how 'the same space becomes a series of different settings' or how 'the sequence of settings is based on social status, relationships, etc.'. For example, proximity and efficiency are emphasised in some contexts, while the sequence is based on sacred relationships for the others.

Perception as a hypothesis, which is then tested ‘more rigorously and possibly quantitatively’ – i.e. starting with paradigm cases (extreme examples) and then moving on to more subtle ones (lists of characteristics) (Rapoport, 1990: 72). This concept is proposed as suitable for the interpretative framework constructed in this study – it is also articulated in the conclusions. Overlaps with other terminology included in the interpretative framework are explained in 2.5.6 below.

2.5.6 Interpretation

“I know that trying to figure things out leads to blindness, that the desire to understand has a built-in brutality that erases what you seek to comprehend. Only experience is sensitive.” (Høeg, 1993: 261)

Explanatory, rather than descriptive, approaches are complex, as this

“...type of treatment involves and requires anthropological and historical information and explanation as well as sociological and psychological. This ‘information’ is not limited by empirical data, but demands a theoretical framework within which to work.” (Turan, 1990: 12)

Juan Pablo Bonta (1979) describes a paradigmatic approach to interpretation. He states that by looking at problems within the paradigm of communication – that is, meaning as decoded by the receiver should largely coincide with meaning as encoded by the emitter. The shortcomings of this are that there is no proof that designers intended to communicate anything at all and it fails to explain the process of reinterpretation. He also identifies the problems with Umberto Eco’s approach of distinguishing primary (designer intended to communicate) and secondary (those that come later and are beyond the designers control) meanings in a work of architecture. His alternative is the paradigm of interpretation that is limited to the facts that can be validated empirically such as:

- People do assign meaning to their environment, in ways, which are not random but are governed by canons and are subject to historical change.
 - Designers have the ability to produce forms that are meaningful to other people as well as to themselves.
 - Meanings assigned to a form throughout its life-span are far more varied and complex than any single interpreter could possibly envisage – even if the interpreter was the designer himself.
 - Designers may try to anticipate the meaning people will assign to their forms. They may even manipulate form in order to suggest certain meanings to the interpreters.
 - Interpreters sometimes feel that designers intend to communicate something. But this is a belief of the interpreter, not an intention of the designer. What is at stake is a special kind of interpretation, not a special type of design.
- (Extracts from Bonta, 1979: 226-227)

Thus: "Interpretation can be successful even where communication fails." (Bonta, 1979: 227). There is no such thing as an 'objective' description of a building: "Buildings can be described only from the point of view of certain interpretations, which entail value judgements and refer to classes." (Bonta, 1979: 165). Even incorrect interpretations then reflect beliefs operating within society at certain times.

Fisher explains the concept of a hierarchy of interpretations:

"A hierarchy of interpretations can be distinguished within the temporal strata of cultures. The artefactual material, the artefactual type, and the artefactual style all need to be ascertained... Within the interpretative hierarchy each act of interpretation is directed at a particular object type and accessed through a different historical system." (1992: 38)

This interpretative hierarchy of Panofsky (1968: 40-1)¹¹, originally intended for investigating Renaissance art, is re-interpreted and articulated by Fisher: The levels of interpretation are broken down into pre-iconographic interpretation (descriptive), iconographic interpretation (associative) and iconological interpretation (speculative)(1992: 38-39).

2.5.7 Signs, Symbols and Interpreters

As a conclusion to the above, it is emphasised that metaphysical systems (like religion or spirituality) and commonplace daily life each play a role in creating a cultural order of meaning and activity, metaphysics being expressed in everyday places and routines (Geertz, 1973: 23). Conceptualised symbols and metaphors, rather than abstract and de-conceptualised logical manipulations, serve as the tools for assigning and apprehending order and meaning in people's lives, especially in places where literacy is of limited importance. Vagenes (1998: 150) elaborates that where there are numerous taboos in a society, and where relationships are governed by avoidance or deep respect, signs and symbolic manipulations with objects are very important.

Vagenes (1998: 151) further elucidates that any object used in specific ways can become a sign. Any constituent of a community structure (such as 'gender' in Vagenes' research) can be approached in terms of the following:

¹¹ Panofsky believed that Renaissance attitudes to art removed the 'object' from the inner world of the artist's imagination and placed it in the 'outer world' (Gelernter, 1995: 97) – this can perhaps be adapted to attempts at interpretation in this field of study.

- Spatial and material aspects
- Social relations
- Symbolic/cultural expressions (Vagenes 1998: 124)

It is acknowledged that one can recognise a culture by being shown a part of it. Each of the codes, pertaining to a specific cultural context, conveys certain messages. All of these messages are similar in meaning. If 'body' is added to the top of the list, it becomes apparent that each of these cultural manifestations is in reality as extension of body images. In very religious cultures with strongly contained gender roles, these images are strongly linked to gender differentiation.¹²

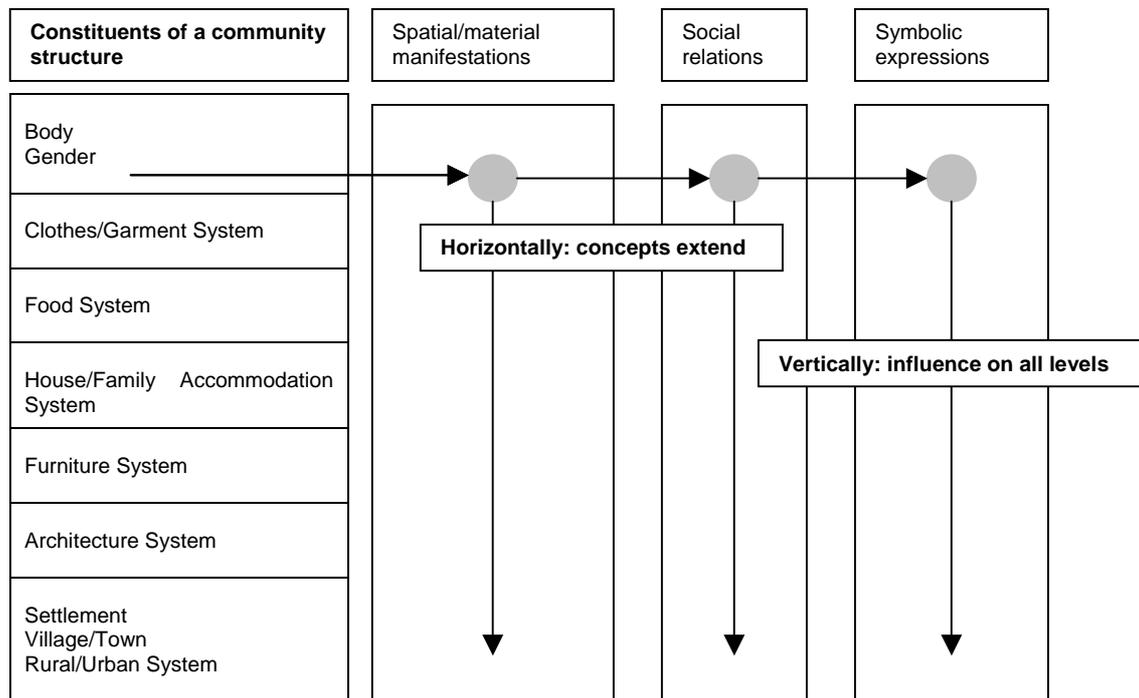


Table 2.2 Codes that make up a cultural context

Place making and spatial movement extend personal body images, making them larger in space and time; they also reflect social relations and symbolic expression. The maintenance of tradition, through the consistency of meaning in each language/code, or what has been alternatively termed the constituents of a community structure, is served by the encoding of space with critical social symbols and ordering devices. Ritual defines these spatial patterns and the symbolic content of ritual is thus acknowledged.

¹² This may be even clearer in very religious cultures with a patriarchal dominance. This aspect needs more research.

2.5.8 Recapitulation

The above sections have identified the constituents of the tangible culture of a people. These elements are broken down into spatial/material manifestations, ensuing social relations and inherent symbolic expressions as possible categories for research. This greatly assists in the selection of artefacts relevant to a particular study context. The multiple characteristics of any artefact are acknowledged. A method of analysis, whereby phenomena related to artefactual material is studied in relation to identified terms, their permutations and the analysis of possible connections between them is considered essential. The breaking down of an interpretative process, and the three levels of interpretation, namely descriptive, associative and speculative, set a base for the methodology followed in the remaining sections of this dissertation. Interpretation based on the above is seen to be possible only through interdisciplinary investigation.

2.6 INTERDISCIPLINARY INVESTIGATION: THE VALIDITY AND DIFFICULTIES OF USING A VARIETY OF SOURCES TO UNDERSTAND ARCHITECTURE

This dissertation approaches architecture in an explanatory, rather than descriptive manner. Anthropological, historical, sociological and psychological information and their interpretation become imperative to the success of the study. More meaningful interpretations are obtained by interdisciplinary investigation. Relying on data from one discipline is limiting.¹³ Social conscience, religion and ethics give order to a society that is no doubt reflected in space appropriation – that is, how people adapt their spaces to suit a particular understanding of relationships and activities. The degree of social segmentation and its relation to space segmentation is an important aspect of study. Social structure represents the key influence on the organizational configuration of domestic space at the level of the community and the individual house.

¹³ In Rapoport's writings on vernacular architecture, he points out that "...evidence comes from many disciplines... it also makes available new approaches and new methods that "come with" these disciplines." (1990: 43). In earlier writings he also explains how the study of vernacular architecture may generate new fields of study "...at the intersection of two or more previously unrelated disciplines." (Rapoport, 1982: 10). He believes that the boundaries defining disciplines are sometimes arbitrary (Rapoport, 1977:4).

Kinship systems and structural themes in society such as gender and attitudes to life and death mean that relevant research needs to be referred to before one can achieve a meaningful reading of the architectural expressions of a people. In the context studied, power relations affect spatial arrangements within the home and gender related subdivisions. There are many clues to be derived from the study of linguistic terms used for spaces and buildings. All of these cannot be studied without reference to other disciplines. The nature of architecture itself means that other disciplines need to be referred to constantly.

Movement patterns of people through/within a country no doubt influenced interaction and cultural amalgamation. They also assist in generating an understanding of where people settled. The study of these can be found in historical and geographical records. The impact of the natural environment and people's perception of it is vital to creating a picture of a culture. This aspect is seen as pivotal to the premise of this thesis and some of the themes pertaining to this approach are explored below:

2.6.1 The Architecture/Culture/Environment Dialectic

"When man alters nature, he himself is altered... (man) interacts with nature and transforms it. But in the process nature also interacts with man and transforms his consciousness." (Gaarder, 1991: 299)

There is a great deal of academic debate on the relationship of culture and environment to architecture.¹⁴ Culture and the built environment are sometimes seen as one and the same units. Some scholars challenge this (refer to various authors in Kent, 1990). Generally, culture is expressed through behaviour and space use, which ultimately determine architecture. Kent (1990: 3) admits that the physical environment is delegated a very minor role in this scheme as it is only seen as a broad limiting factor. This is problematic as the environment is seen to have a strong impact on culture and people's outlook on life.¹⁵

¹⁴ Environment-Behaviour Studies have been strongly advocated by Rapoport in various writings. His "EBS-based design theories" are an attempt at taking a "more explicitly "scientific approach." (Rapoport, 1990b: viii and other sources). The author has been cautious of the term "scientific" in these writings, and the attempt to challenge the so-called "art metaphor" in design theory (Rapoport, *ibid*, vii). Thus, concepts are used selectively. It should be noted that Rapoport does support the view that cultural variables are more important than climatic ones (*ibid*, 44).

¹⁵The German word 'Weltanschauung', meaning philosophy of life, world outlook, views, creed or ideology interestingly contains the term 'Welt' which means world, earth, people, society, humanity or universe (Cassell's New German Dictionary, 1974: 562). A philosophy of life is strongly linked to context as a totality.

An issue of dispute among scholars is to what extent is the physical world is a determinant of architectural form and the use of space. Because a spiritual understanding of the physical world is believed to be a determining factor in terms of social ritual and religious practice, it ultimately becomes a determining factor of architecture that contains such ritual or practice. This dialectic is discussed more in subsequent chapters.

According to Kent (1990: 44-45), form, organisation and use of space are determined by naturally fixed, flexible and culturally fixed factors. This is a limiting construct if one considers that climate and topography are considered naturally fixed elements, especially in a region where there have been drastic climate changes through time.

It is acknowledged by Kent (*ibid*) that each factor modifies the effects of the others. In this case it is seen that none of the factors are really 'fixed'. The difference between them would then be the rate at which they change.

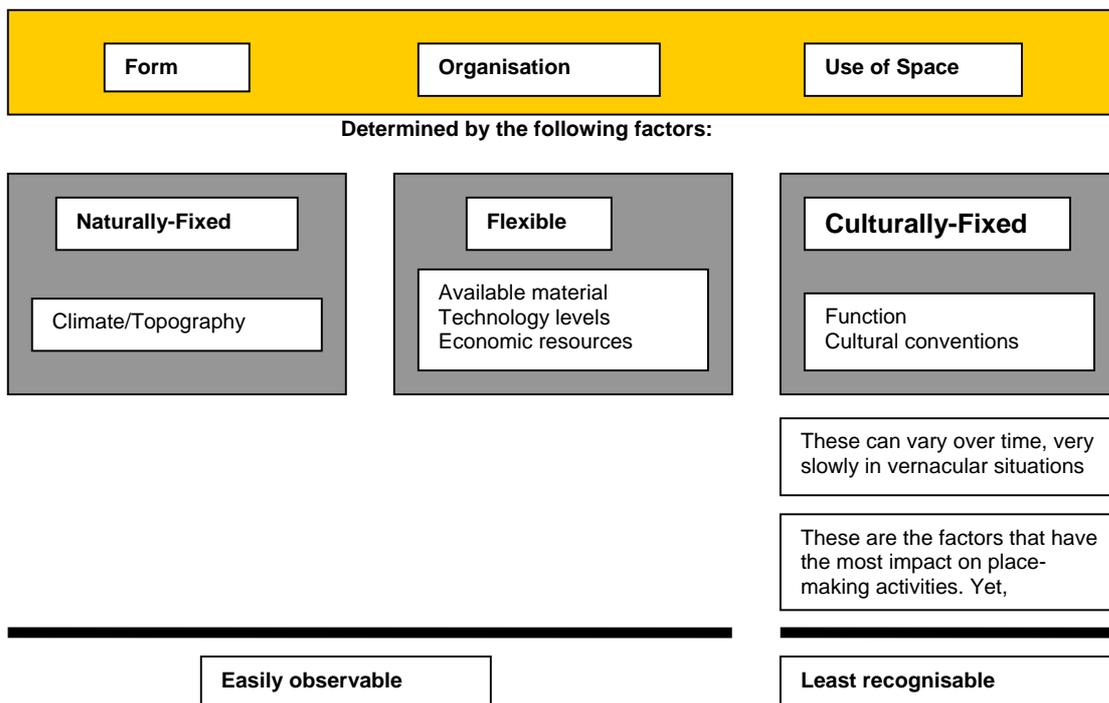


Table 2.3 Determinants of form, organisation and use of space (adapted by the author from Kent, 1990).

This construct is valuable in comparing to what degree different factors are observable or not. Naturally fixed as well as flexible factors, which comprise available material, technology levels and economic resources are said to be easily

recognisable in archaeological remains (Kent, 1990). It is the culturally fixed factors, comprising function and cultural conventions that have the most impact on built form, yet they are the least recognisable in remains. These factors vary over time, even though the change is slow in vernacular situations.

There are a variety of approaches to studies concerned with climatic changes and their impact on culture. Quatrémer de Quincy looked at the way people acquired their food in relation to their social structures and architecture. Similarly, some researchers see natural areas as defining cultural areas, invoking food sources as environmental determinants: “The dominant archaeological paradigm in prehistoric archaeology since the 1920’s emphasizes the role of the mode of subsistence in cultural evolution.” (Hassan, 2000: 125). The environment needs to be understood in two ways: as it is (was) and as it is (was) perceived (Hassan, 2000: 127). How the “...known environment relates to the “real” environment is also discussed by Rapoport (1977: 25). In the following sections, the inquiry of environment is looked into in terms of climate and landscape as the first is seen to have profound influence on social organisation and state systems, and the latter is believed to affect our worldviews in relation to sensory stimulations gained from the surroundings.

2.6.2 Perception of climate

“The historical relationship of humanity to climate is a story that remains substantially untold.” (McIntosh, Tainter and McIntosh, 2000: 1)

Social components of adaptation to climatic change are largely invisible to observers (McIntosh, Tainter and McIntosh, 2000: 5). Some illuminating considerations on the issue of climate change are as follows:

- Humanity interacts not directly with nature but with its perceptions of nature, and it acts on those perceptions.
- A major portion of any human response to climate or other environmental change is through behaviours that are intangible: changes in social networks, in relations of reciprocity, or in the cosmology that defines the place of humanity in nature.
(Excerpts from McIntosh et al, 2000: 6)

Archaeological records show that many flourishing ancient societies suddenly collapsed. There are indications that in many cases this was a result of sudden and persistent environmental change (<http://www.igbp.kva.se/cgi-bin/php/sciencehistory.show>). Where agriculture is possible, sedentary lifestyles predominate and these give rise to ‘civilisations’. Temperature changes may have previously limited agricultural

practice and encouraged people to adopt nomadic lifestyles, for example. Human presence is integral to the eco-system and not overlaid onto it, human behaviour is nested in the biophysical and is not isolated from it (McIntosh et al, 2000: 15). Culturally created perceptions of climate are generated through collective social memory, which results in active processing of climatic information and its transmission from generation to generation. “Social memory is thus the source of metaphors, symbols, legends and attitudes that crystallize social action.” (McIntosh et al, 2000: 24-25).

Of importance to this study are the concepts embodied by the previous writers in terms of the relation between complex societies and hierarchical organisation of society. This is discussed as the ability of a system to maintain its structure in the face of climate change, a society’s resilience. Heterarchy, the horizontal integration of multiple overlapping social lattices with different centres, such as a tribal system, is compared to hierarchy where there is a vertical integration of networks of power and information, streamlined by ranking various systems, such as in a kingdom. In the latter, few decision makers means quick responses to change, in the former the decision making involves everyone and is therefore slow but information is not lost in the process (McIntosh et al, 2000: 13).

Hierarchical	Hetrarchical
Kingdom	Tribal councils
Streamlined information	Information available to all
Quick decision-making in the hands of few – bureaucratic	Slow decision-making as all are involved in the process

Table 2.4 Two forms of social structure and their characteristics

One may speculate that hierarchical systems led to the production of massive monuments. As explained by Elvin (2004), regarding Chinese environmental history: “Politics and the state played crucial roles in encouraging and shaping environmental changes.” (McNeill, 2004). The architectural production of different regions of Africa can be gauged based on these systems of adaptation. The northern riverain region of Sudan would then be assessed according to historical episodes with major differences in climatic conditions. Other disciplines will be referred to in this

investigation at a later stage of the study. Before that can be done, some other aspects important to this theoretical framework are discussed below.

Another aspect of interest in relation to the table above is that climate change may result in a breakdown in social order, which could be perceived as a breakdown in cosmic order: "This was likely to generate feelings of pessimism and fear of an apocalypse, as well as notions of future salvation at the hands of a saviour." (Hassan, 2000: 136).

Before that, it is explained that climate change and responses to it depend on how people perceive it: "Individual perceptions and memories are subject to selective retention. Actions become a part of the social memory if they are accepted by a sizable segment of the population and are passed on to future generations. Such cultural actions are likely to become integrated in the cultural fabric of thoughts, discourse and practice." (Hassan, 2000: 121). Events are fabricated and modified in folklore, practices in order to preserve social memory (Hassan, 2000: 136). Preservation of memory of past crisis is crucial in order to help people deal with future crisis (Tologa, 2000: 181).

To understand interaction between people and their environment in the past one needs to rely on relics from the past as articulated by Hassan (2000: 128-129): remnants from lived existence such as modifications of a landscape, physical remains of material objects, graphic signatures of art or scripture, residues of human activities and oral or written traditions.

2.6.3 Perception of landscape

"Landscape is the visual signature of a territory (a vista) that is partially formed by the people who inhabit it." (Crumley, 2000: 193)

"It is only by a complete understanding of how the landscape is, that we fully understand the 'genius loci' or 'spirit of place'. The concept of 'genius loci' denotes the essence of place." (Norberg-Schultz, 1976:4, 5)

Our perception of landscape has an influence on our worldviews, discussed above. The topography, vegetation, colours and sense of openness or enclosure are all aspects that are part of our cognition of the environment. Place making activities are our response to this. Some forms of landscape create a strong sense of direction.

Some create a sense of unity or disjunction. Natural features provide structural elements that help us determine order in landscape composition. The natural order of the cardinal points also represents cosmic symbols as agreed-upon meaning, an extension of social beliefs. This will become more apparent as the study progresses. Rapoport believes that: "Nearly all landscapes are cultural landscapes." (1990: viii) and that people interact with their environments through meaning (ibid, 42).

Norberg-Schulz explains that a feeling of intimacy and a unified visual image are characteristics of some natural landscapes, but are absent in others. To him a quality of place is generated through a combination of striking external relations and exteriority. A 'place' can thus appear as a figure on a natural background (1979: 114-115). Rapoport notes that among Australian aborigines, "...meanings of place are frequently stronger and clearer in locales where there are striking and noticeable environmental features." (Rapoport, 1982: 26). It is clear that there may be other categories of landscape that lead to specific ideas of place - the understanding of place in the study region needs further investigation.

2.7 ARCHITECTURE DEBATED

2.7.1 Vernacular architecture

The vernacular is the 'language or dialect of a particular country' according to The South African Pocket Oxford Dictionary (1994: 1084). Thus, each setting has its own dialect; yet, some characteristics are shared due to the similar mode of production in all the settings. Despite its appropriateness, importance and valuable lessons, vernacular architecture exists as a separate entity from institutionalised architecture 'with the beginning of labour specialisation and the ensuing dawn of stratified society' (Turan, 1990: 3). Architecture is seen to be the product of architects. In traditional contexts people are seen to be 'without architecture' or architecture is seen to exist 'without architects' (Turan, 1990: 5).

The qualities of vernacular architecture are similar to the products of craft-evolution. Artefacts that came into being as craft were characterised by their non-mechanised nature and their beauty by virtue of their direct resonance with functional need of the society and often the response to limitations and opportunities posed by regionally available material. This indicates that the qualities inherent to vernacular artefacts were societal constructs passed on from one generation to the other (Osman, 1996:

24). In this situation, change happened very slowly over long periods of time. Institutionalised architecture separated the maker from the designer. It also shortened, the previously very long, evolutionary process through the use of design-by-drawing, modelling and computation.¹⁶

Until recently architectural history mostly ignored complex interpretations in favour of dealing with individual buildings. “Architectural history became the record of isolated cases as if they existed outside of society and a discourse of countless casualties.” (Turan, 1990: 9). Rapoport states that traditional mainstream architectural history has had a bias towards “important” works that are subjectively selected (1990: 11). It has also emphasised “hero” figures, and neglected many practicing architects (Rapoport refers to Niels Prak in his book, *Architects, the Noted and the Ignored*, 1984).

In this study there is a different view: According to Rapoport, architectural history “... has emphasised the “hardware”, the visible products. But the environment is best conceptualised as the organisation of space, time, meaning and communication, or alternatively, as the relations between people and people, people and things, and things and things.” (*ibid*).¹⁷

Lekson states that in terms of vernacular architecture, “architecture is town planning or it is nothing.” (1990) The settlement, or the community, is the basic architectural unit. The community is defined as the daily face-to-face social network. To study the community, which in turn, defines the settlement, patterns of interaction need to be identified.¹⁸

The study of vernacular settings means looking at the built environment as a totality and not as an assemblage of individual buildings, thus conventional methods of architectural history serve no purpose in these endeavours. One of the assumptions

¹⁶ These concepts have been articulated by Christopher Jones in his 1976 book ‘Design Methods, seeds of human futures’.

¹⁷ This further justifies the need for a term to define these relationships, thus the use of “intangible artefact” in this study. This seems to be the basis of Rapoport’s theory of Environment-Behaviour Relations (EBR): the study of these relationships, not only of fixed elements, but also of semi-fixed and non-fixed features (Rapoport, 1990: 13). Here it is expanded to the non-existence of features as well, where people use the open space for various activities and rituals.

¹⁸ A settlement can often have many communities as explained by Rapoport. This becomes evident in the proceeding sections of the study.

of this thesis is that individual structures would give little light as to the nature or meaning of the environment and it seems that this is a basic characteristic of vernacular contexts anywhere.¹⁹ If there is a statement made by the built environment it is a collective statement and not an individual one, unlike the institutional approach to architecture where the building is isolated, unique and designed to stand out.

Norberg-Schulz believes that to dwell means the establishment of a meaningful relationship between people and their environment. A house repeats the basic structure of the environment – it becomes a microcosmos: “To dwell means to belong.” (1984) The use of space is also influenced by the lifestyle of the people concerned. He compares the role of the house in the cold north (‘my home is my castle’) to other contexts where daily life takes place outdoors and the house serves a semi-public purpose. This also represents the ‘medina’ typology of Islamic cities where individual houses are also not easily identified within the urban fabric. It also reflects some of the qualities associated with vernacular settings.

These two modes of habitation imply that the single building, within an urban matrix, would be characterised by anonymity and dependence, while in other cases the building is an autonomous object of identification. Most architectural theory focuses on the latter, thus it is unsuited to the study of vernacular contexts.

Many times the distinctions between vernacular and institutional architecture are attributed to subjective factors such as levels of sophistication or beauty. It was seen appropriate here to debate this.

2.7.2 What is beauty?

“The peasant wanted to build a house for himself, his kin and his cattle, and he has succeeded. As his neighbour and his ancestor succeeded. As the animal succeeds, guided by his instincts. Is the house beautiful? Yes, just as beautiful as the rose and the thistle, the horse and the cow.” (Loos in Rykwert, 1972: 27)

Because the concept of beauty is such a pervasive aspect of architectural evaluation, its role in understanding the value of vernacular architecture is explored. Beauty is culturally determined. As a starting point for the discussion, a commonplace definition

¹⁹ This approach is strongly supported by Lekson and the author has found it applies to the case study in question. It may perhaps be further tested in future studies of other contexts.

is put forward: According to The South African Pocket Oxford Dictionary (1994: 72), beauty is 'a combination of shape, colour, sound that pleases the senses.' Or 'pleasing to the eye, ear, mind'. But this applies to only the physical appearance of a product, and if the first statement holds true, the concept of beauty by definition differs between cultures, societies or individuals.

The meaning of beauty can be expanded to include relevance, function and process. Turan refers to this as 'environmental wisdom' (1990: 8), that is natural and accumulated knowledge that influences the development of built form. Environmental wisdom is appropriate environmental response. 'Beauty and wisdom are rarely found together' is not true in the case of vernacular architecture (Turan, 1990: 8).

Pevsner (1963) uses 'aesthetic appeal' to draw the distinction between architecture and building (refer to Brawne 1991: 146). Aesthetics is explained as: 'of or sensitive to beauty' (The South African Pocket Oxford Dictionary, 1994: 14). From the above it becomes clear that making the distinction between architecture and building, in terms of 'aesthetic appeal', is limited in accuracy and significance.

Quatremère de Quincy excludes from the designation 'architecture' any building that has a purely material function (Rykwert 1972: 37). A product of natural circumstances and the imitation of natural models do not 'raise' building to the status of architecture. Emulating nature through taking up the proportions of the human body, as the Greeks did, is assumed to have 'raised' their craft to a 'great art'. Quatremère de Quincy was shouted down at the Ecole des Beaux-Art in 1826, according to Rykwert, due to his ideas being perceived as static and limited in progress (1972: 38). He quotes Algorotti's notion of architecture being different from painting, poetry or music:

"These have in a certain sense, merely to open their eyes, contemplate the objects around them, and base a system of imitation upon them. Architecture on the other hand, must raise herself on high through the intellect, and derive her system of imitation from ideas about more universal things, far removed from human sight. It might almost be said with good reason that she has the same place among the arts as metaphysics has among the sciences..." (Rykwert, 1972: 63).

Rykwert (*ibid*) refers to these ideas as being smug. This conceited approach to architecture is still evident among architects today. This can be detected in the fact that, unlike other disciplines, architecture is still perceived as esoteric and

incomprehensible to the general public. Architects and architecture seem to exist in isolation in an impenetrable sub-culture.

Architectural activity is partly a process of technification. In distinguishing between the work of a mere builder and a master builder, between the dwellings of a common person and a dignitary, between the ordinary building and the important building, and between human, animal shelter or religious, public function, through emphasising the superiority of the monumentalised or technified artefact, there is a resultant, artificial focus on a small percentage of building activity only. This focus is what the history of architecture has promoted. This undermines its relevance and accuracy.

2.7.3 African architecture

“Unspecialised cultures make little, if any distinction between the concepts of beauty and functionality. All art originates within a specific cultural context, and is used to reinforce belief, customs and values, and is for the most part oriented positively towards humankind’s search for a secure and ordered existence.” (Dippenaar 1987:129)

The triple heritage (as articulated by Mazrui, BBC series and Parrinder, 1976) of the culture of most African contexts complicates investigation into the art and architecture of these regions. Merged identities of ‘Islamic’ or ‘African’ are difficult to disentangle. Again, in Africa, there are fewer preserved remains of historic objects than for instance in the West, architecture is often very fragile and short-lived, there are many gaps in the historiography of architecture, and the systematic practice of conservation of built culture is only recently becoming prevalent.²⁰ Also, existing historic objects are not necessarily dated or related to certain people or events (Adahl, 1993: 141). Western architectural history theory, if it wants to pronounce on African architectural history, needs to be extended and adapted to accommodate for these major differences. Methods of analysis should be relevant.

There are those who would argue that criteria for assessing architecture that prevail in Western societies might be used universally. Yet, if we cannot create a theoretical base more relevant to the abovementioned African vernacular contexts, many valuable lessons will be lost and cultures will go undocumented. African built culture cannot be appreciated using conventional architectural theory that is biased towards

²⁰ Other objects of African art and useful objects have been preserved and documented to a greater extent than built culture.

western civilisation. For example, the so-called Sudanese-style characterising buildings in the savannah belt of sub Saharan Africa, is not considered to be more than 'shelter' (Adahl, 1983: 132). It is seen as a technique rather than aesthetics. This attitude exposes how limited western architectural views are in terms of understanding African architecture.

Elleh (1997: 345) states that architecture is the least developed of African art forms. This statement is rejected since the assessment of architecture of the region is based on an irrelevant understanding of architecture. Small scaled, non-permanent or short-lived architecture are all valid architectural responses to specific ecologies and situations and on the whole, African architectural responses to climate and social settings are extremely successful. There are no doubt communicative problems when a work is produced in one setting and observed in another. In terms of the cultural content of architecture, Balogun (1979: 34) distinguishes between the form, which is accessible and understandable, and the content, which is inaccessible, to outsiders. He states that there are no commonly shared elements with Western culture that allow for valid interpretations. There is also no shared definition of art. A work of art in one context may be considered a religious or cult object in another.

Balogun makes a controversial statement:

"African architecture has seldom given rise to massive monuments and constructions, with the possible exception of the city of Zimbabwe... it is mostly devoted to structures of modest proportions." (Balogun, 1979: 69)

This is inaccurate as it excludes the cultures of Nubia, Egypt and Ethiopia. Elleh explains:

"In east Africa, Kenya, Tanzania, Mozambique and Uganda, there are many monuments built from stone. These monuments attest to the existence of empires or states that were organised beyond the agricultural societies of Africa. According to Professor Mazrui (1986), the theme of gloriana was founded by the dynastic empires of Africa which also believed in using stone and brick to erect durable testimonies to their lifestyles." (Elleh, 1997: 45)

If monumentality is considered a condition for architecture, then Adahl (1997: 134) identifies it in the structures of West Africa: "The simplicity and serenity of the construction and the moulded, almost melted shapes, still permit monumentality; the total impression is overwhelmingly forceful." But perhaps monumentality should not be a condition for architecture, as the living spaces of ordinary people will become

excluded from our academic debates. Brawne's (1991: 134) explanation of Louis Kahn's definition of a 'school' as a 'man sitting under a tree talking to a student', a definition where there is no mention of the word 'building' seems to be more suited to a broader understanding of architecture, more relevant to the context under study. Yet, this gives rise to the question of architecture being mere function. It can also be seen differently: architecture being space appropriation in any form.

Elleh (1997: 45) shows how the small houses, or huts, typical of Africa, are hybrids of much earlier forms that evolved in the Nile Valley when societies began to develop and farming became a profession. Elleh (1997: 47-48) believes that African architectural history is complete only when the whole continent is taken into consideration as he sees the similarities throughout the continent to be more than a coincidence. He also sees Ethiopia and the Sudan as strategic starting points for such a study.

"The characteristic peculiarity of Meroitic architectural design is the practice of joining harmonic rectangles which determine the outer limits of the plan. The 'Inner Harmony' of the Egyptian type of sacral building develops into an 'Outer Harmony' principle in Meroitic times." (Hinkel, 1991: 222)

It can be argued that, if decoration is perceived as 'primitive' while focus on space and form are seen as 'sophisticated', many of the structures of Africa can be classified as sophisticated, as people did not just assert themselves through decoration. The assumption that Greco-Latin art is the ultimate culmination of artistic development that evolved from eras of 'primitive art' is very Euro-centric and limited. Such an assumption denies the value of the preceding origins as well as extraneous art forms that were partly its morphological and syntactical inspiration (*inter alia* Oriental art forms) and excludes many successful environmental interventions from the architectural debate.

Aesthetic appreciation in Africa cannot be viewed in isolation of the function of an artefact and the criteria cannot be universal, an approach advocated by Shinnie (1991: 49). Trans-Saharan trade routes throughout Roman times and the mediaeval period means that the interaction of Nubia with Egypt was very powerful and was a major reason for cultural fusion in Africa.

“The Nile Valley allowed communications between the Sahel-Savanna and Mediterranean North Africa. Whoever controlled Nubia controlled this corridor, and with it the prosperity of Egypt.” (Horton, 1991: 264).

For all of these reasons Elleh (1997: 49-50) believes that future research will support the notion that there is a strong relationship between ancient Egypt and Africa south of the Sahara.

2.7.4 African spirituality

“The spiritual is fundamental to African life, and their whole world is seen as a spiritual arena, in which the interplay of psychic forces are experienced. Religion is an ontological phenomenon that pertains to the question of existence or being, in which people live in a religious universe which starts before birth and continues after death.” (Parrinder, 1976:28)

In Africa, artefacts are not made to be admired but to be utilized, such as use in religious and social rituals. There is no distinction between art as a separate genre and everyday life, as in dance or song for example. Artistry is not an end in itself but a means to an end, it is not practiced outside of the setting to which it belongs, for entertainment. The artefact does not signify anything in isolation:

“... because of it and in conjunction with, the context of beliefs and rituals to which it belongs, for the good reason that it is but one of many instruments in a coherent ensemble to which it contributes meaning and from which it derives significance.” (Balogun, 1979: 38-40).

Balogun does not agree with the statement that ‘religion is at the root of all African art’ finding it too wide a generalisation. There is some truth to it if religion is considered to be at the base of life itself, and it is Balogun himself who claims that art and life cannot be separated in this context. In Africa, God is considered to be too exalted and too distant to be concerned with human affairs and agents are then necessary to intervene in the day-to-day activities of people. The concept of the *bayān* of a *shaykh*, in Sudan, is an African concept:

“Some sign or ensemble of signs must be found to distinguish this human agent from other human beings and establish the fact that for the duration of the rites he has ceased to be a human being and has become the avatar of the divinity or ancestor whose presence is being evoked.” (Balogun, 1979: 42).

The importance of the ancestors, another major factor in African spirituality, is not evident in Sudanese culture.

2.7.5 A Sudanese idiom

“By means of the phenomenological method, we may “think” about things and disclose their “thingness.” Phenomenology ought to become the gathering middle of education, and hence the means which may help us to recover the poetic awareness which is the essence of dwelling. “ (Norberg-Schulz, 1984: 135)

Schulz distinguishes use (multi-dimensional) as being different from function (one-dimensional). To dwell is not merely to have a roof over one’s head. It is multi-faceted, incorporating all human actions. Place is more than location. Place is where man dwells – architecture is thus an element that signals place. Sense of place is mythical, cosmological, a latent spirit inhabiting a particular site, which architecture pays homage to, makes explicit and questions. Place and place-making means reading what exists, thus making its essence manifest and extend it. “We have to develop our poetical intuition and intend the world in terms of qualities rather than quantities.” (Norberg-Schulz, 1984: 135).

Approaching architecture in Sudan, Existentially, ‘dwelling’ needs to be defined with sensitivity towards the differences apparent in that context. The method of identifying a Sudanese Architectural idiom has been structured as follows:

- Identifying context
- Identifying recurring themes (including a definition of the identity of a people)
- Understanding identity through the physical artefact at a variety of levels
- Understanding identity through intangible constructs

Architectural categories are derived from this analysis and are place-specific; they are not abstract. Norberg-Schulz (1984) identifies three domains of dwelling: collective, public and private dwellings. Also, belonging and participation as collective or individual values, are exemplified through dwelling (The dominance of collective values or individual values is investigated later in this study).

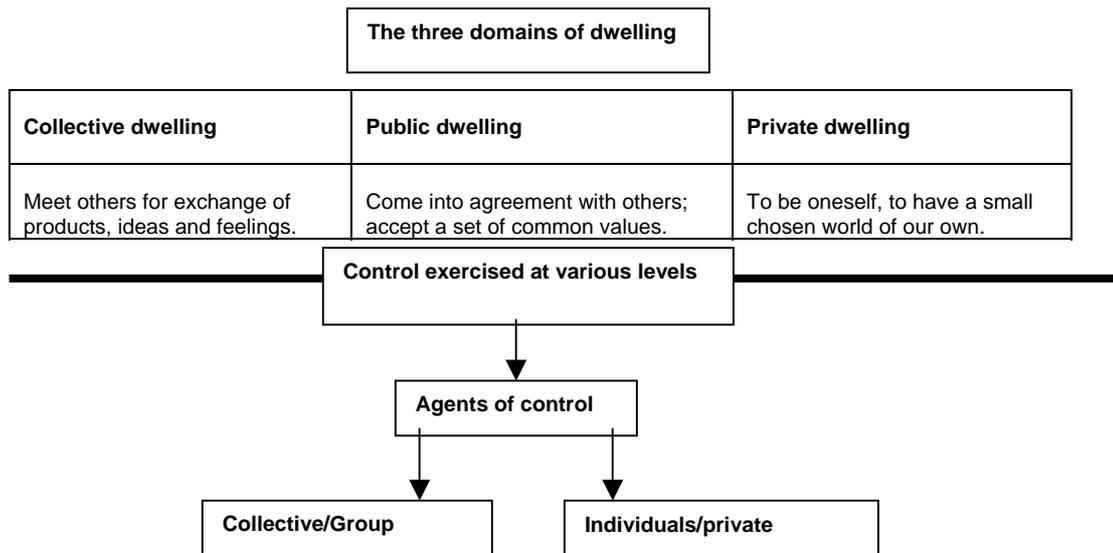


Table 2.5 The three domains of dwelling and agents of control

Ordinary, individual experiences are related to larger wholes of human existence, by applying and extending contemporary architectural theory to a vernacular context. The context is not the “elsewhere” or the “other”. Interpretation implies that some distance must be maintained, one needs to move out of the boundaries of a phenomenon in order to be able to see it clearly and to appreciate it. This also means that one needs to move out of the borders of a discipline. The place, the people, the activities, the networks as well as the undomesticated landscape ‘make’ the architecture of the region.



Fig. 2.2 and 2.3 Rudimentary structures in the Gezira region, the Sudan (Photographed by author, January 2000).

In the northern riverain Sudan, buildings blend in with the landscape, and with the rest of the built environment, not by chance but by choice. Rapoport states: “...all

environments are designed!” (1990a: 78 and 1990b: 17). Thus, there is meaning to be read into choices concerning any context outside the realm of institutional architecture. Rapoport supports this (1977: 15-16) where he proceeds to explain the limitations of choices in traditional situations – this is debated in this study as value systems sometimes impose these limitations, as Rapoport himself later acknowledges (*ibid*, 24). Sometimes these choices may result in extremely rudimentary structures (Fig. 2.2 and 2.3); they may also result in no building at all. Both of these decisions are elevated to the realm of ‘architecture’ and studied within the knowledge embodied in the discipline.²¹

2.8 A RE-DEFINITION OF ARCHITECTURE²²

“...the art in architecture is preponderant only in the tomb and the monument. Loos wants to show further that the artist is concerned with future generations, but craftsmen, such as the architect, with the present. The architect... must aim at creating a particular feeling in his spectator about the building he is designing. And he concludes, “When walking through a wood, you find a rise in the ground, six foot long and three foot wide, heaped up in a rough pyramid shape, then you turn serious, and something inside you says: someone lies buried here. That is architecture.”” (Loos in Rykwert, 1972: 27-28)

Norberg-Shultz’s interpretations of Heidegger have provided another definition of architecture: a ‘building’ does not represent anything. It rather brings something into presence. The temple makes the god present. It ‘fits together’ what shapes the destiny of man and makes all things on earth visible (Norberg-Schulz, 1984: 114).

“A building, a Greek temple, portrays nothing. It simply stands there in the middle of the rock-cleft valley. The building encloses the figure of the god, and in this concealment lets it stand out into the holy precinct through the open portico...the temple and its precinct, however do not fade away into the indefinite. It is the templework that fits together and at the same time gathers around itself the unity of those paths and relations in which birth and death, disaster and blessing, victory and disgrace, endurance and decline acquire the shape of destiny for the human being... Standing there, the building rests on the rocky ground. This resting draws up out of the rock the mystery of that rock’s clumsy yet spontaneous support. Standing there, the building holds its ground against the storm raging above it and so first makes the

²¹ It is interesting to note that the limitations of traditional approaches to architectural history and theory not only exclude vernacular architecture from architectural debates, but also vital aspects of so-called developed societies: “...in our own culture, both in domestic and nondomestic situations, semifixed-feature elements tend to be used much – and are much more under the control of users; hence they tend to be used to communicate meanings. Yet, they have been ignored by both designers and analysts who have stressed fixed-feature elements.” (Rapoport, 1982: 92).

²² The meaning of architecture according to the South African Pocket Oxford Dictionary (1994: 40) is ‘Design and construction of buildings, Style of building... Architect, designer of buildings, supervising their construction, person who brings about a specific thing, Greek: *arkhi* (chief) and *tektōn* (builder)’.

storm manifest in its violence. The luster and the gleam of the stone, though itself apparently glowing only by the grace of the sun, yet first brings to light the light of the day, the breadth of the sky, the darkness of the night the temple's firm towering makes visible the invisible space of air... The templework, standing there, opens up a world and at the same time sets this world back again on earth, which itself only thus emerges as native ground... The temple, in its standing there, first gives to things their look and to men their outlook on themselves". (Heidegger in Norberg-Schulz, 1984: 113-114).

Thus, Norberg-Schulz concludes that "By means of the building the place gets extension and delimitation... the meaning of the place is revealed by the building." (1984: 117). In this sense knowledge of an object is based on the context surrounding its existence. This does not elevate the history of architecture to the study of the building. It also does not imply a disregard for the physical shape of things, but rather an appreciation that form has been shaped by environmental responses and is an extension of cultural beliefs and practice. In the study of architectural meaning, form and content cannot be separated.

People who have no building techniques at all, for example the aborigine tribes of central Australia (Rykwert, 1972: 185-188), cannot be excluded from the architectural debate. Objects are used for ritual and then destroyed. By referring to the abstract, geometrically rigid and regular artefacts, Rykwert interprets the (temporary) constructs of the aborigines as exhibiting features of the 'initatory hut' without actually enclosing space:

"... it seems to me remarkable that a people who only adopt an excruciatingly uncomfortable form of enclosure as a temporary expedient, devise this extraordinary construction and endow it with all the majesty of a hope which the Apocalypse was to glorify." (1972: 189).

Vitruvius viewed the architect as master of craft – *fabrica*. The heart of his treatise was: *firmitas* (strength), *utilitas* (utility) and *venustas* (beauty). It is seen that traditional responses to the environment through building can then be rightfully classified as architecture. In vernacular architecture, form and content are valued more than applied ornamentation.

The concepts of architecture as articulated by Vitruvius (translated by Morgan, 1960) encompass many aspects of architecture that correspond to the intelligence of vernacular architecture in particular:

- Arrangement: Reflection and invention (Book I in Morgan, 1960: 14)
- Order (*ibid*: 13)

- *Eurythmy* – graceful, agreeable (*ibid*: 14)
- Symmetrical – corresponds to harmony, *symetria* – harmony of assembled parts, relation of parts to the whole (Book III, *ibid*: 72)
- Advantageous distribution – management of materials, site (Book VI, *ibid*: 174), economy (Book I, *ibid*: 16) and climatic suitability (*ibid*: 170-173).

Vernacular architecture is a source of practical and theoretical knowledge and an appropriate response to the environment. In traditional contexts, the person-nature dialogue is refined and well developed. Through learning about the interface between culture and technology as well as building activity and social relations, the scope of architecture is broadened beyond function and aesthetics. It raises questions otherwise excluded from architectural debates. It leads to concerns about what must be done, thus combining theory and practice (Turan, 1990).

Living spaces shape social interaction and vice versa. Living spaces are anywhere that people have lived. Habitation models are reflections of social hierarchies and interaction. Contemporary theory, pertaining to space and place, can be applied to vernacular situations and they need to be studied as intelligent architectural responses. Architectural practice has existed since people first started constructing shelter for themselves. The same way that design has existed since earliest times, but only its processes were transformed from craft-evolution to design-by-drawing and beyond. Building and constructing were some of the earliest occupations of people, Turan therefore states, perhaps even older than the commonly cited 'oldest profession' (1990: 5).

Words related to 'art', 'skill', and 'craft' are linguistically associated with the action of constructing in some places (Turan, 1990: 6). In Afghanistan, a Sufi (a religious person) is also used to refer to a master builder (Kasimee and McQuillan, 2002). The Arabic word, *ya'amir*, build, implies wealth. In Sudan, *binna*, building, is associated with 'order' as in *albinyan almarsoos* (Gasim, 1985: 132). *Marsoos* means set together and combine otherwise separate pieces (Gasim, 1985: 454). The word building is related to expertise and a special ability. If the separation between architecture and non-architecture refers to the quality of work, the product of non-professionals cannot be dismissed as non-architecture (Turan, 1990: 7).

Thus, for the purpose of this study, architecture is defined as follows:

Architecture is any people's spatial response, comprising the patterns of its appropriation and use. It is extensions on the environment that create places that support cultural beliefs and practice. These constructs may be temporary or permanent. A meaning of a place is, not only, revealed in a building but also in how people move, act, react to and use its defined space.

2.9 SUMMARY AND CONCLUSIONS

The differentiation between institutional and vernacular architecture is acknowledged, and the values of the latter are identified to explain the limitations of prevalent, conventional definitions of architecture and to achieve a broader understanding. Interdisciplinary investigation allows for that broader understanding of architecture. A multi-disciplinary study would utilise professionals from various fields of study or disciplines. This study uses achievements and insights from various disciplines. The various disciplines that are included in this multidisciplinary investigation are all vast fields of study in their own right, making the most advantageous utilisation of the possible understandings forthcoming from these disciplines difficult to achieve – it is accepted that the author probably only touches on the surface of these disciplines and selects what is of direct relevance to the study. Applications of theories may be deemed crude, yet, a matrix, portraying the interconnection of architecture/culture/environment, is achieved through this process.

African culture is seen as a hybrid mix of cultures. The meeting point between Africa and 'the outside world' is investigated. Relatively new religions, Islam and Christianity, as well as colonialism have created unique situations where all forces have merged to formulate the history of the continent. The character of art in Africa is different from western conceptions and needs a relevant theory base for its study. It is seen that even the Sudan within Africa has its unique identifying features, and further, Northern riverain Sudan within the Sudan. This theoretical base is essential to achieve relevance to this particular region, within the accepted discipline of vernacular architecture. Though unique, the region does not exist in isolation. It needs to be viewed within its larger context as well as in terms of its contact with the whole continent and world culture.

The research process is seen to have an impact on the final interpretation arrived at through this enquiry. It is also a reflection of the author's motives and value system. It

is not an impartial process. Thus, information sources, the language used and classification systems adopted reflect on the outcome of the research. The core of this discussion is the concept of 'multiple characteristics' and levels of interpretation relevant to the inquiry of the meaning of place. The structure and approach of this thesis has been derived from these concepts.

Conventional approaches to architecture have been challenged and this approach has been supported by a literature review. A definition of architecture that is appropriate to the studied context is achieved and an appropriate theory base for the study of the architecture of the region is set up. Thus, the problem has been addressed and the hypothesis supported.