CHAPTER 6: A THEORETICAL, INTERPRETATIVE FRAMEWORK FOR THE STUDY OF SUDANESE ARCHITECTURE

6.1 SUB PROBLEM 5

Relevant tangible and intangible artefacts of the culture of the northern riverain Sudan need to be placed into an eco-systemic framework for use in architectural interpretation, research and education. This framework must enable articulation of structural relationships between intangible and tangible aspects of built culture and place making in the northern riverain Sudan.

6.2 HYPOTHESIS 5

An understanding of the built culture of the northern riverain Sudan requires the identification of significant relationships between tangible and intangible aspects of the region. Inclusion of the studied relationships into an eco-systemic framework will expose the role of intangible culture in space appropriation patterns and its implication on the character of place making in northern riverain Sudan, where a rich culture is expressed through architecture.

6.3 OUTLINE OF CHAPTER 6

This chapter attempts to achieve a consolidated interpretation of the spatial and physical manifestations of culture in the northern riverain Sudan. Many aspects discussed below are speculative and tentative, but the rationale of the inquiry is based on the results of the previous chapters. It is attempted to understand spiritual influences on place making activities, as a phenomenon, through the articulation of a personal reading of the context. The history of the region is explained through a display of paradigmatic milestones and intervening episodes of socio-economic and cultural formation. The northern Sudan location in Sudan, in Africa, is expressed within a current global academic realm. The intangible aspect of Sudanese architecture, and its relation to the tangible, becomes discernable through interpretation.

6.4 TOWARDS AN INTERPRETATIVE FRAMEWORK

Through the study of the context, within the framework of the identified themes recurring in the literature on the region, it has been possible to construct one understanding, an eco systemic reading of the context from an architectural point of

view. This construct is not only of the tangible phenomena, but also of the intangible. Things/artefacts become more than just materials or objects. Physical 'things' are seen as reactions to context, in which materials or objects are concretised. The concept of artefact is extended to include conventional wisdom existing in the form of values, ideas and words.

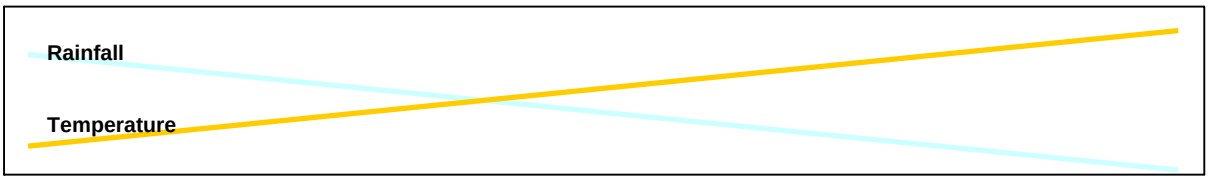
The concept of 'environmental phenomenology' (explained in Chapter 2) is used in this interpretation. The influence of the natural environment is articulated through philosophically based analysis. A phenomenology of place is achieved through deep understanding of the milieu in which a physical artefact is conceived and implemented. Superficial readings of the everyday world or mere cultural imagery are avoided as a more profound understanding of a phenomenon is aimed for. Images are thus explained in terms of their mythic values and tradition is reinvented and portrayed as theory. The essence of an event is aimed for, its underlying reason exposed.

While the author has not attempted a phenomenological interpretation of the landscape, towns and individual buildings, aspects of phenomenology enabled the use of a reflective attitude, resulting in the identification of several hypotheses relevant to the study. Paradigm cases were developed out of recurring themes in the literature of/on the region. These are elaborated in the following sections. The result of one paradigm case that emerged very strongly is the vast difference in the material culture of different historical episodes.

6.5 A COMPARISON BETWEEN CULTURES OF VARIOUS HISTORICAL ERAS

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 show a marked difference between the different eras. In the post Islam eras archaeological remains show a lack of material imagery. These changes in social structure coincide with episodes of climate change. The desiccated natural environment, the identity of the region as it exists today, has existed since about the 4th Century AD.

The diagrammatic representation of increased temperatures and lower rainfall is related to the major historical episodes in Table 6.1 below.



APPROXIMATE DATES

2000BC-1000BC	1000BC-300AD	300AD-642AD	1504-1821	1882-1898	1956-Present

These periods were interspersed with episodes of foreign rule, by Egyptians in the Kushite and Meiotic eras and:

Emerging identity **Turkish/Egyptian** **British/Egyptian rule**

Kushite	Meroitic	Christian	Funj	Mahdist	Independence till present day
Centralised power first at Kerma then at Napata	Centralised power at Meroe of	Split into three kingdoms	Centralised but power shared with various chiefs and originally an alliance with the 'Abdalab Arabs	Centralised but short lived and always at war	Centralised but anti-government groups operating in south (since mid 50s) and west (since 2003) of the country
Highly hierarchical	Further away from Egypt and more independent – highly hierarchical	Divided village-based society*			
Expansion interests to the north	Expansion interests to the south	Limited power and strength	Expansion interests but no significant success	Expansion interests to spread Islam	Split by civil war
Kushites: food producing society – extensive trade activities – elitist society Meroites: excessive food production – significant wealth through trading and mining (Meyer, 2003)		Environment desiccated – limited economic activities	Food producing society and extensive trade activities	Pre-occupation with war and religious issues	Preoccupation with war during most of this period – excessive de forestation and desertification
Kushites: massive monuments and rich material culture – buildings of various functions some of them still unknown – stone artefacts and fine pottery: Egyptian influence with traditional elements – large burial mounds Meroites: again massive monuments expressing power and wealth – own language developed to replace Egyptian hieroglyphs – kingdom of the blacksmiths – iron-smelting industry fuelled by abundant forests (Meyer, 2003)		Rich imagery in the form of coloured frescos – iconology associated with the catholic church –converted castles as churches – development of a church form of mud, bricks and stone (Meyer, 2003)	Much of the imagery is associated with the body and with dress forms as well as rituals of the kings court –little in terms of buildings	Frugality encouraged – little material expression	Material culture as a power tool – new imagery to reflect Arab/ Muslim affiliation and suppress African affiliation – highly influenced by other cultures and is in state of rapid transformation
Contacts with other great civilizations such as the Greeks and the Romans		Minimal contacts with the Coptic mother church in Alexandria or other countries	Contact with other countries through trade and travel	Contact with others discouraged	Since the 1980's external contact has been discouraged – changing due to international pressure and discovery of oil reserves
Religion and ruler are one and the same – as the hereditary succession of the crown still had to be validated by the god		Mingles secular authority with organised religion*	Muslim kingdom – religious ideals propagated by individualistic *fuqara*	Religious state	Secular state after independence then religious state since the 1980's
Kush is always under threat from Egypt which wakens the kingdom – Meroe evolves as further removed from the northern power but is finally weakened, one of the reasons being de forestation due to long-term mining activities (Meyer, 2003)		Too disconnected from other churches to be of significant power – finally succumbs to Arab/Islamic pressure	Power at the peripheries became stronger as that of the centre declined – Kingdom gradually weakened till overthrown by Turks	Migration to Omdurman drains resources of the country, leads to famine – non-production weakens the state	Khartoum as a drain on the resources of the country –depletion of natural resources and desertification

Table 6.1 A comparison between cultures of the different eras in Northern riverain Sudan.

Why these changes occurred between the different ages is an issue of speculation. The changes revolve around the following issues: Why centralised, unified power is dominant in one age and de-centralised power in another; to what degree the society is hierarchical and elitist or homogeneous; what kind of expansion interests those in power had; the kind of material culture produced; contacts with other people and whether religious power and political power were combined or separated.

Traditionally, the study of society has been perceived as a measurable discipline, which employs the techniques of natural science (Oliver, 2000: 77). This is seen in some assumptions that social change adheres to a set of rules that is applicable to all societies, anywhere. Accepted Western social evolutionary theory assumes a rise in social complexity, internal stratification and central authority (Kent, 1990: 167) and it has generally been believed that, as societies become more complex their spaces become more segmented (Donley-Reid, 1990: 115 and Kent, 1990: 129). In the region under study, space became less segmented and more multi-purpose in character, as well as more gender specific. In the Sudan, society has fluctuated from periods of elaborate stratification and segmentation to relative simplicity and lack of elitism depending on economic situations and religious and political influences. The Western assumption of unremitting progression to complexity is not a reality here.

One key concept in theories of social change refers to 'adaptability', including, but not limited to, the adaptation to environmental change: "One such line of theory postulated a general movement from magic to religion to science." (Schneider, 1976: 3). Schneider (1976: 4) explains that elements of each have always existed: that is science, religion and magic have always co-existed. One can see in the above table, that religion has always been a strong force. It has intermingled, and still does today, with ancient pagan beliefs that may comprise a belief in some form of magic.

The role of the king in Egypt was to provide for his people under his reign (Hassan, 2000, 136). The Funj king was:

> "…the provider of a safe and fertile homeland; he taught people how to extract gold; he instructed them to cover their nakedness. A Nubian king, it was said could 'make live, or make die.'" (Spaulding, 1985: 127).

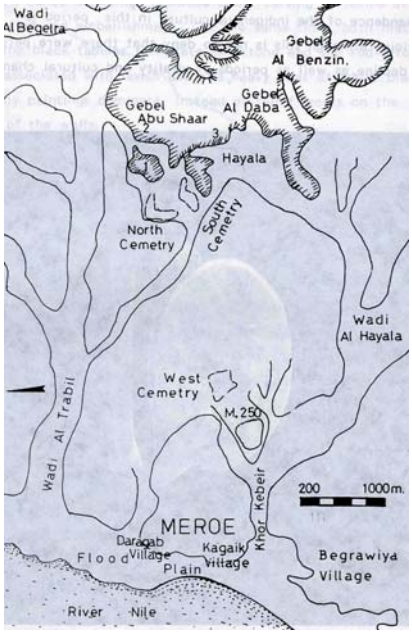
Origins of evil were explained in legends (Spaulding, 1985: 127). This can possibly explain the disintegrating central leadership as the climate became harsher and people were not sufficiently provided for.

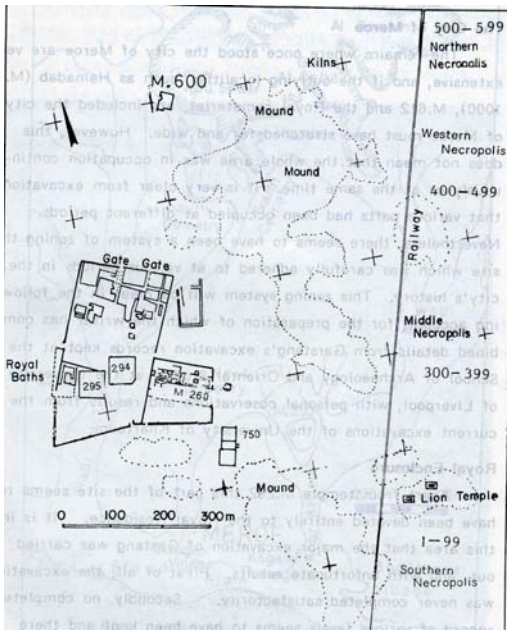
The separation, or integration, of political power and religion has inevitably been linked to religious beliefs through time. Elitist social structures and complexity reflected on settlement planning at micro- and macro- levels. Certain spaces were reserved for certain sections of society and there were several segregated classes of architecture defined by location, elaboration and content (Hakim, 1988). Social hierarchies were more evident in layouts. Judging from the layout of the city of Meroe (Figs. 6.1 and 6.2), status-segregation was evident in the settlement:

> "The ordinary population of Meroe lived further eastward, southward and northward of the Royal city, in houses built generally of mud-brick, though in the late period, re-used red bricks were employed. These were built on or near the iron slag heaps. They seem to have been set up as simple structures at the edge of the town, constantly shifting from one part to the other." (Hakem, 1988: 27)

Strict zoning appears to reflect a high degree of centralised control on environmental interventions. The industrial activities at Meroe were consistently located on its eastern side, a zoning pattern that spanned the history of the town (Hakem, 1988: 27). From documented buildings it is also apparent that spaces were highly segmented and mono-functional.

Meroitic culture demonstrated the presence of a strong administrative system and highly evolved integrative structure. Urban identity reveals the existence of organising principles that allowed mobilisation and control of large labour forces affecting long-range planning projects and maintaining a hierarchical social order that determined the general living conditions and settlement location of the urban population. Also, domestic segmentation accompanied increasing differentiation of socio-political authority and parallel formalization of residential status difference – the former expressed through diversification of monumental architecture, and the later through standardised variation in domestic construction style and settlement placement (Kent, 1999: 165-167). This explains the segmented and status-defined city planning in Meroe.





Figs. 6.1 and 6.2 The topography of Meroe and the layout of the town (Hakem, 1988: 16 and 18). The zoning of Meroe seems to have persisted through the ages despite changes in the size of the city: Hakem studies this through the consistent location of the Royal residence in relation to other parts of the town (1988: 17-18).

Elitism is a strong identifying characteristic of the pre-Islamic era. It is defined by political power and material wealth. Discriminatory mind-sets are acknowledged as a key feature of Sudanese attitudes; yet, the materialization of this is not so visible. This follows in the general pattern of the history of the region, where the intangible came to acquire a higher status than the tangible. Thus, social patterns were not necessarily reflected physically or spatially. Status-determined built form or site location was more dominant in the pre-Islam eras and class differences are rather marked by a tangible display of artefacts as a source of pleasure rather than subsistence.

Fig. 6.3 Castle at Meroe from the later Funj era. Drawing by author from Crawford (1951: 48).

Crowfoot (1911: 40) believes that the palace at Musawart es-Sofra and temples in the Nubian Desert, further away from the river, belonging to the rulers of Meroe were not inhabited for long periods of time. According to him:

> "…they were the superfluous works of a dynasty great in peace and prosperity. They were useful, no doubt, for a short period in the year… Did they inherit from a line of nomad ancestors this love of the pleasant desert valleys far removed from the cities by the river…?" He compares them to the "Blue Sultans of Sennar, who used to migrate during the summer rains to a high gravely ridge midway between the Blue and the White Niles…?" (Crowfoot, 1911: 41).

Crowfoot continues as follows:

> "This dynasty… passed away before the middle of the 4th Century of our era, and the country fell for a time at least under the power of a black tribe of lower culture. With this change comes a cessation of all building in the interior, although cultivation may have continued as before. The change came rapidly and without observation; in the quarry on the hill above Nagaa, from which the stones of the temples were cut, are large blocks almost detached from their beds, but left as if the order to cut and lower had suddenly been cancelled. On the riverbanks there was no such complete disruption; many characteristics of the delicate pottery found upon these sites recur on the finer wares to be seen at Christian sites…, which flourished between the 8th and 10th Centuries of our era. With the Christianisation of the country all the gains of indigenous and imported culture were not lost, much persisted, as did many a less pleasing social custom, but the persistence was confined to the valley of the Nile; in the uplands the moment which had created houses and temples of masonry in remote valleys came probably and ended with a single dynasty." (1911: 41)

This is an interesting aspect, comparing the riverain culture to that of nomadic cultures further inland. The fact that he ascribes the expression 'minor culture' to the Funj is highly questionable. Yet, it was definitely a different culture that did not correspond to Western concepts of development and civilization, reflected as material objects and monuments.

Material culture must have been greatly influenced by religion. Meroitic art was distinct and can be detected in the "…well-rounded female figures, in the highly individual pottery styles, and in the use of motifs and subjects not familiar elsewhere." (Shinnie, 1967: 100). The favourite subjects of Meroite artists were the elephants and lions, which are rarely seen in Egyptian art – African elephants used in warfare in Ptolemaic and Roman times were trained by Meroites (Shinnie, 1967: 100-101). The fine ceramic art of Meroe is a shared characteristic with the pottery of the Christian era (Shinnie, 1967: 114-116). Some of these material expressions were no doubt a result of extensive contacts with other civilizations, though their uniqueness makes them easily identified as Meroitic by archaeologists. Graeco-Roman formulae of

classical correctness were employed (Shinnie, 1967: 119). Christian symbols were an important aspect of the Coptic Church. Icons were used to depict the image of God (http://www. Coptic centre. com/ two.htlm).

The advent of Muslim nomads reinforced already existing nomadic traits. The religion they brought with them prohibits the use of the human figure in any art form. The early focus of the religion on reading and learning no doubt had an influence on the lack of importance attributed to imagery in the religion, and when used the focus was on abstract patterns and plants. As mentioned previously, the one important place for the Muslim is where the *haj* rites are undertaken:

> "To be a Muslim requires five commitments: belief in Allah, prayer, fasting, pilgrimage and almsgiving. Four of the five are opportunities to demonstrate one's faith. A place is necessary only to the pilgrimage. The obligatory prayers may be offered anywhere. Fasting requires no specific site. For the pious Muslim the mosque has become a site for prayer and a site for fasting, but it is not a building for either." (Highlands, 1990: 57)

Sacredness is embodied in the body of the individual worshiper rather than on the physical space that contains him/her, a mosque for example. Sanctity many be embodied in a praying person rather than a building. It is embodied in the *halaqa*, a group of people performing a ritual, the circle of people singing the praises of the prophet, rather in the form of the space that contains them. The sanctity of the place is contained in the ritual being performed and disperses with its conclusion. This unique approach to 'place' has influenced space use immensely. This is often reflected in other domains, as the character of the space 'being' the activity/rite performed.

The establishment of the Funj Kingdom brings another aspect to the history of the region, that of elaborate rituals. Spaulding explains how the court ritual in Sennar was:

> "…an elaborate and well-orchestrated drama that not only enunciated the formal acts of the state, but also ceremoniously reconfirmed the right of the state to exist and of those present, including the King, to hold their assigned positions within it." (1985: 6-7)

Spaulding also explains that the physical setting of these rituals, the palace complex, was not a building type that could survive the elements, being built of packed earth.

And so the story of the Funj continues in history sources as one that focuses on rituals and the extensions of status and beliefs on the body, attire and cosmetics. Visitors to the state of Sennar felt that the architecture had no symmetry or beauty (Spaulding 1985: 8). To what extent this is true is debatable, but there were no monuments that were to survive the deterioration of time or that were comparable to the remains of the earlier kingdoms.

Ethics are seen as a means of control. Externally determined rather than internally determined, based on guilt rather than what is right or wrong. This intangible characteristic of the northern Sudanese people has led to a degree of conformity. This is an aspect that has thus had major impacts on how people inhabit space or shape their physical artefacts. The homogeneity that is manifested visually is, thus, traced back to ethical control systems of the society. Differences in built form and space use are thus, traditionally, very subtle and not so apparent.

An aspect of social change is the degree of personal freedom in various social constructs (Schneider, 1976: 11). This is a contentious issue if one considers the importance that is attributed to freedom in Western cultures, together with a rather judgemental attitude with which any other culture is assessed. This has been avoided in this study. Various social phenomena are approached in a non-judgmental manner to enable understanding.

The conservatism expressed through dress forms conflicts with the many sexually implicit gestures associated with the method of wrapping a garment around one's body. This is comparable to the use of explicit words in poetry to describe women's bodies and romantic sentiments, relative to the apparent conservatism expressed in everyday life.

There was much material imagery and prosperity when Nubia was at its most powerful under one leadership, as when the climate was moderate, land was fertile and much wealth could be generated. Abundance and riches previously encouraged foreign contacts and trade, as well as political supremacy and lavish lifestyles. Lack of prosperity has already been identified as a paradigmatically linked expression of a perceptible frugality in physical expression in later eras. Nomadic lifestyles and contempt for urbanism and material wealth has also been mentioned.

The coming of Islam was simultaneous with the most impoverished eras, in terms of climate and ultimately in terms of economic gain. Crowfoot states that: “Fashions in building change very rapidly during periods of prosperity.” (1911: 38). He attributes the discovery of various building types in Meroe, existing side by side, in the absence of great mounds (thus they are the work of a short period and not a long series of generations) to periods of wealth. This point is another important reason why the material culture changed so dramatically between the different eras: because of poverty, people simply could not afford to experiment with building types, perhaps, among other reasons, leading to the visual homogeneity.

Harsh environments have led to defeatist attitudes. People are despondent about their fates and despair concerning the lack of control they have over their lives. Thus, they depend on the *shaykh* to protect them. This fatalism is reflected spatially in very powerful ways in terms of patterns of urbanisation that prevailed at certain historical periods, space use within the home and in other *loci* of social and religious ritual, and in the sanctity (or lack of) that is attributed to the tangible artefact, be it built form or non-architectural.

Another problematic sequence refers to a supposed evolution of professions through time: moving from hunters to shepards, to agriculturalists to industrialised societies (Schneider, 1976: 14-15). Ancient Meroe was an industrial society through their extensive iron-smelting activities (Shinnie, 1985: 28). Iron smelting continued through the Christian period (Shinnie, 1985: 30). The region has been known for its mining opportunities since early in history – that is one of the reasons why the Egyptians have always shown interest in it. Later in history, the region is more known for its subsistence agricultural activities. The so-called stages of development cannot be applied strictly to any one context. Assuming that all societies go through the same processes of evolution has been a contentious issue (Schneider, 1976:33-36), and it does not apply in the area of study.

Sometimes social change has been perceived to occur when there has been a transformation from homogeneity to heterogeneity, using living organisms as an analogy. This is explained through one example of the separation of economic activities from the kin or family. Yet, these two structures have an inter-dependent existence (Schneider, 1976: 6-7). In the pre-Turkish eras, a *saqiyya* system of

economy meant that economic activity was kept within the family, not necessarily with a regulating centre. Where the saqiyya or the land belonged to one person on whom many depended for either the irrigation of their land or as a source of paid labour, a type of feudal system developed.

With the imposition of taxes and the heightened control of the Turkish rulers on matters such as what type of crops to plant, this system disintegrated, the Turks were rudely introducing the country to western forms of economic activity. These changes are no doubt linked to the form of authority. In the former case, authority was de-centralised and represented by the leading figure of the family, or the feudal landlord. In the latter, it became separated from the family and was centralised through political power. In this system, the different parts of a society become highly inter-dependent, when for example a family is no longer able to sustain itself. This becomes problematic if that ability at sustenance is taken away before a complete system of support is set up to maintain it. This is perhaps another reason why the material culture of the region deteriorated as the preoccupation became daily sustenance.

This focus in terms of economical structure above, leads one to consider Marxist theory. A Marxist interpretation of Sudanese history has been articulated by Al-Gadal (1992). This dialectical interpretation views social change in the Sudan as being linked to the means of production and who owns them. Growing discontent among the peasants in the feudal systems in the pre-Turkish eras is perceived to have given rise to the weakening of the Funj kingdom, for example. Before the Turkiyya, private land ownership was recognised and the Turks confirmed these rights by issuing proof of ownership (Bjørkelo, 1984: 104). This approach is limited as it delegates a minor role to religion. The approach is refuted through the different stages of interpretation of this dissertation, even though the relationship between belief and action is obscure. Some may delegate belief a minor role in social practice (for example Marx), while others may assign belief a more influential role (for example Weber) (Turner in Schneider, 1976: 97).

The form of religion may also have a great role to play in social change. The way that the religion of Kush and Meroe influenced the day-to-day life of commoners is still unclear. Catholic inclinations of the Coptic Church probably meant that attitudes

revolved around the belief of predestination (Schneider, 1976: 92-97). Perhaps this was the seed for the fatalistic attitudes apparent till today. It could also have influenced less concern for material expression, as one could not differentiate between the 'saved' and others by the quality of life they lived.

Fig. 6.4 Church in Old Dongola Sketch by author from Crawford (1951: 34).

From the above case, attitudes to material wealth, which is linked to sedentary living, and asceticism, which is linked to nomadic living, are exposed. Self-denial, moderation and self-discipline – the values of the nomads – emerge as Sufi tests of humility, obedience and worldly renunciation. Again, materialism and imagery was delegated a minor position in terms of social priorities.

Social and religious ritual gained an essential, unifying role. These rites ensured conformity, as mentioned earlier, and they also ensured that harmony presided between original settlers of the region and newcomers over the ages. This was imperative for the survival of a people, and their culture, who existed at the crossroads of several worlds. The transience and fluidity of the places they created to host social and religious rituals, are due to a summation of all the structural links and factors mentioned and explored above.

Ibrahim (1976: 11) believes that the true birth of an Arabic culture in the Sudan started with the Funj, while indicating that the filtration of this culture started earlier in history but was formalised and accepted then. He goes on to explain that Sudanese thinking is inevitably linked to the 'learning' that was brought into the country by the Muslim teachers and its mode of transmission was the Arabic language (Ibrahim (1967: 11-18). He articulates that Sufism, though common in all Muslim countries, took a unique turn in the Sudanese context, in that it entered the country with Islam.

That is, in the Sudanese mind Islam and Sufism are one and the same thing. Thus, the spread of Sufism in the region was wider than in any other context (Ibrahim, 1967: 18).

The above comparison between the different eras is not exhaustive. It offers rich opportunities for further research into the architecture of various historical episodes and the reasons for changes in material culture. This places the architectural debate in its correct setting: a cultural manifestation that is strongly linked to socio-economic changes within a specific context.

6.6 AN ALTERNATIVE INTERPRETATION OF SUDANESE HISTORY

Generally, the history of Sudan is divided into two eras, namely pre-Islam and post Islam. Major changes occurred with the advent of the new religion and due to the manner by which the religion was disseminated. This dissertation rather acknowledges the 'lost', vague stretch of time between the signing of the Baqt treaty and the establishment of the Funj Kingdom. It is believed that the shape and form of Sudanese society and culture as it stands today mainly evolved in that era. This does not undermine the importance of other factors such as British, Egyptian or Turkish influences, but rather sees the introduction of Islam as an important event, expressed as a shift in Sudanese history. Identifying a unique approach to the study of this specific region is procedurally important and will assist in creating a methodology of research that is perhaps very relevant to African contexts.

An eco-systemically based framework is constructed with which the relationships between the prevailing paradigms of diverse historical episodes can be articulated. The historical milestones are indicated in the timeframe in Chapter 3. Society's changing ideas/concepts through time, which determined social systems, were not a reaction to a 'given' set of circumstances. Three factors were also going through alterations. Over a very long period of time climate changes were imminent. Foreign or local rulers and their policies were also in a constant state of transformation. And the profile of the population was never stagnant due to the accessible location of the area.

Climate change has always been linked to the growth and the demise of major civilizations. Nubia is no different. The Sahara desert was formed some 5000 years

ago and has only been hyper arid for the last 2000 years. This roughly coincides with the disintegration of the large unified and powerful Nubian kingdom into smaller and less influential kingdoms.

The images of elephants on the walls of temples, that are now in arid areas with little animal life in them, lead to speculation about how the inhabitants of the region must have interacted with a entirely different environment in very different ways. Some speculate that these images were the result of trade contact with India. Yet, the significance of a previous ecology and habitat of the region cannot be ruled out. Climate changes and their linkage with building forms and material use are probably easily detectable in archaeological finds, but the linkage between climate and people's beliefs and attitudes is more obscure. This 'dynamic interplay' of a variety of factors that underpins changing approaches to space and place, has been identified and used to compare two different eras in the region's history.

Supposed Nubian contact with India is an aspect that has caused much speculation (Shinnie, 1967: 100 and 113). The *hafir* (water diggings) at one Meroitic site has been attributed to Indian influence by some researchers. Elephant figures, as mentioned above, and three-headed figures found on Meroite images, have created speculation that Indian influence must have been strong. Till today, dress forms, cosmetics and wedding rituals have a striking resemblance to Indian culture. But Hakem (1988: 223) argues that some elements, claimed to be Indian-inspired, may just as easily be purely Meiotic, as the appearance of elephant-lion motifs started at earlier dates than those suggested for Indio-Meroitic contact.

There was a complex combination of aspects underlying the transformation in that region. The premise of this dissertation is that the linkage between climate change and spiritual beliefs was strong. This had an influence on habitation models. The fact that spirituality often revolved around the Niles, through various rituals linked to rites-of-passage, also indicates the role it had to play in the well-being of people and their daily livelihood.

The nature of a landscape is interrelated with climate. Till today, much of the Sudanese landscape is undomesticated. Settlements exist as separate incidents in a sea of space, apparently disconnected except for the people most familiar with the

region. Refer to the poets of the Butana, the region between the Nile and the Atbara River, who build up vivid images of the area with so much detail, names of regions and descriptions. To them it is not the undifferentiated landscape apparent to the outsider. This landscape has impacted on the riverain people's approach to life.

The transformation that occurred during this climatic transitional phase can only be re-discovered through the study of it manifestations. This comprises the characteristics of artefacts before and after it. Through the study of these artefacts lost ideas may be recovered and a re-construction of past thoughts achieved. History (time), geography (space) and cognition as three dimensions of analysis (Crumley, 2000: 194), can be utilised in generating interesting insight. This concept provides rich opportunities for further research.

6.7 NORTHERN SUDAN IN THE CONTEXT OF SUDAN AND AFRICA

Due to similar contacts through the eras, some of the characteristics of the region are shared with not only the whole of the Sudanic belt, but also with the coastal regions of Africa on the east. These include the *feki*, spiritual guidance embodied in an individual; similar climates and climate changes, as well as the impact of the Arabs and European colonisers. The last impact has developed a pattern of urbanisation and space use that can only be further investigated through a comparative study, which falls outside the scope of this study.

There are no doubt major differences as well as similarities. The *Baqt* Treaty was not only historically unique as a diplomatic agreement; it was also an exceptional approach by the Muslim crusaders who, till then, had spread the religion through wars and invasions. This resulted in the development of a different form of Islam and a different approach to religion.

Northern Sudan may have stronger cultural links with the ancient Sudanic belt than the southern parts of the country. This needs to be appreciated in any research on the area. Ali Mazrui's analysis of Africa as a 'triple heritage' is still to be applied in meaningful ways to the environment and in terms of architectural responses. It can be used to identify common trends and shared characteristics in the environmental responses of Africans. Ahmed Al-Tayib's 'Sudanowiyya' (Personal communication, 1992) is another theory that can be used as a tool for analysis of the Sudanese

responses as being uniquely Sudanese. Mohammed Salih explains how the National Movement for the Study of the Sudanese Culture:

> "…has established a very strong school of 'Sudanology', which believes that Sudanese culture is uniquely Sudanese and not a basket full of bits and pieces of Arabic/Islamic/African elements." (1986: 423).

This, again, provides rich opportunities for future research.

6.8 SUDANESE ARCHITECTURE

From the debate of the study so far, it can be concluded that architecture in various ways, is a strong expressive force in the region. This is apparent in the frugality of the post-Funj eras, as it is obvious in the massive monuments of the Meroitic era. It is also evident in significant ways in the reaction to the harsh taxation laws of the Turks or the segregation of the British.

Any spatial or built manifestation of a culture that conveys a meaning, or creates a particular reaction in the user or spectator, is architecture. The above, changing architectures are as beautiful as the purpose they served, be it functional or spiritual. The choice of a people to attach importance to, or reject the physical object is an architectural decision. The relationship of a people with climate, politics and economy, which may ultimately be expressed in simplification of buildings and the embodiment of architectural significance in the 'activity' or 'event' or even in the 'physical body' of those performing the action. These are all architectural responses.

Northern riverain Sudan acted as a permeable, frontline border where Arab met African. A basis has been created for the identification and research of other such regions in Africa. Cultural and religious influences reinforced certain themes in northern riverain Sudanese life. Religious systems combined with commonplace daily life each played a role in creating a cultural order of meaning and activity. Spiritual beliefs are embedded in everyday places and routines. Space contains sacred significance. This has been evident through the different historical phases of the northern riverain Sudan.

6.9 AN ECO-SYSTEMIC FRAMEWORK FOR THE STUDY OF SUDANESE ARCHITECTURE

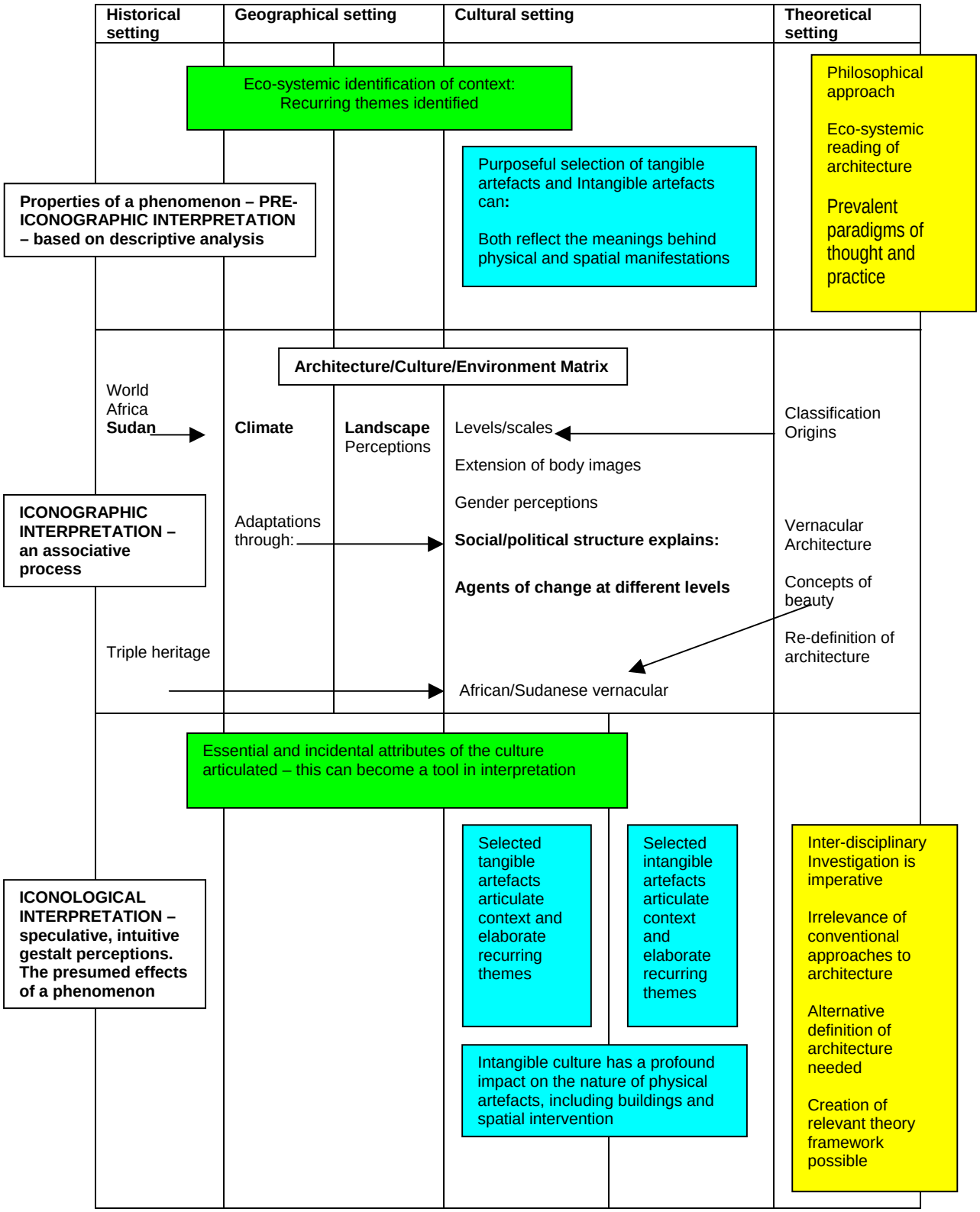


Table 6.2 Space and place in northern riverain Sudan: a framework for teaching and research.

Table 6.2 above places the problem of this dissertation, and its historical, geographical, cultural and theoretical setting, into a usable model for further research into the architecture of the region.

6.10 CONCLUSIONS

In the previous chapters, the focus has been on explaining and interpreting various phenomena, tangible and intangible. In this chapter the focus has been a comparison between the different phenomena, placing them in a diachronical framework and trying to understand structural relationships underlying certain transformations in time.

The eco-systemic analysis of the context developed in Chapter 3 and elaborated in Chapters 4 and 5 is used in constructing an interpretation of the region of study. The underlying forces that determine spatial responses and the creation of artefacts have been articulated. Thus the problem is addressed. Spiritual beliefs emerge again and again as major determinants in spatial interventions such as urbanisation patterns, the location and morphology of towns, as well as use of space within the house, in outdoor spaces and streets. Architectural expression is seen to encompass any form of space use and decision-making. Due to the fact that many monuments in the region are from the ancient Meroitic era and that later remains are smaller in scale, or in some cases non-existent, supports the set hypothesis.

An eco-systemic framework for interpretation has been further elaborated by means of addressing the sub-problem. Spiritual beliefs are established as a major motivator behind spatial intervention. A general comparison between various historical periods further illustrates this statement. Thus the hypothesis has been supported.