CULTURAL ANTHROPOLOGY IN RELATION TO URBAN DESIGN AND PLANNING

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Planning and urban design in South Africa are confronted with a highly volatile decision making context, which is likely to be heavily influenced by unfamiliar cultural values. In this paper a number of anthropological precepts are examined in developing a culturally responsive approach to physical planning and urban design. The fundamental significance of meaning in planning of the built environment is shown through the work of various cultural anthropologists and a case study involving the development of Mmabatho. A matrix summarizes the relationship between culturally impor- tant variables and specific planning and urban design considerations. A prototypical procedure for neighbour- hood or urban scale design/physical planning is also offered.

INTRODUCTION

It is only too apparent to even a casual observer, that the 'new South Africa' which is emerging through a rather difficult childbirth stage, is character- ised by a multiplicity of social groups, each with its own world view and values. For urban designers and plan- ners to cope with these conditions will not only require different techniques (Boden, 1987), but also a better under- standing of culture and its influence on the choices confronting urban design- ers, planners and client groups.

Laburn-Peart (1992:1-2) illustrates the severity of the problem:

> "Plans for the land at Magopa were made both by the state and the Magopa community, but as will be shown, always in opposition to one another ... Physical planning is about land and about control over the use of land. Being deprived of control over land rights means a loss of coherence in the community as well ..."

It was the necessity of carrying out cultural obligations, (Laburn-Peart, 1992: 10-13) which prompted the climactic confrontation between the Magopa community and the state; it was the sense of community, of a shared set of values and relationships, which encouraged the people of Magopa to resist attempts by the state to displace them, and to engage in what Laburn Peart terms "counter planning", which she says centred on the land and its symbolic (not simply material) significance to them. She then stresses the spiritual dimension to this exercise and the central role of the ancestral burial place in providing a sense of continuity to the community.

The handling of these problems of interpretation and meaning, given the tragic consequences these can have if ignored or misunderstood, is the theme of this paper.

To this end the assistance available to local practitioners tackling this new frontier is explored, using concepts and methods employed in cultural anthropology, the discipline most directly associated with researching these issues.

A set of fundamental propositions from cultural anthropology are identi- fied for those like urban designers and planners, concerned with the nature of urban cultures. These concepts provide a framework for defining culture, and suggesting how meanings are assigned to social and cultural signs. Following the Ideationalist School of Cultural Anthropologists particular methodo- logical criteria must be satisfied to validate any transaction between anthropologists and their information sources, whether human, institutional or artifactual. By extension this should also apply to planners and designers.

From these procedural issues the focus shifts to address substantive material. Four groups of interrelated topics are scanned, highlighting specific anthro- pological concerns and perceptions. Within this context the anthropology of cities and the development of various urban types is reviewed, and distinguished from material dealing with human groups in cities, which examines specific urban subcultures. So the theme moves from a diachronic (historical) analysis of city types to a synchronic exploration (which only considers an observable present) of the complex array of groups and sub- cultures found in modern heterogenetic metropolitan centres.

The example of Spradley's (1970) study of hoboes and drunks in Seattle, is used to illustrate how groups meet the criteria for classification as a culture, and how different the wider society's perception of these people is from reality and from their peculiar world view. Only through this type of intensive analysis, and the understand- ing of the insider or "native point of view" (Geertz, 1976) which this pro- vides, can outsiders grasp the signifi- cance of various phenomena for mem- bers of cultures alien to the researcher, planner or urban designer.

Furthermore it appears that our frac- tured, pluralistic modern metropolitan societies display minimal concensus regarding perceptions of and meanings attached to the urban environment. How can the designer or planner then add to or modify the urban fabric without imposing totally alien or unsympathetic solutions?

Rapoport (1982) argues that the answer lies in the fixed and semi-fixed rather than non-fixed elements of the existing urban landscape, which offer cues as to its meaning, and he provides a methodology for identifying and authenticating these meanings.

After a short case study, the lodes of greatest value to the urban designer and/or planner are extracted from this rich source. First a matrix is provided cross-tabulating the relationship between urban design elements and cultural anthropological concepts, before several conclusions are drawn.

CULTURAL ANTHROPOLOGY

Why emphasize cultural anthropology, and what is it about, and how does it differ from other types of anthropology? Anthropology can be subdivided into specializations in various ways but in the United States consists of physical anthropology, archaeological anthropology, linguistic anthropology and cultural anthropology. Our concern is primarily with cultural anthropology and more specifically with its social and environmental aspects, except in dealing with the history of the city, where archaeology can make a major contribution.

CULTURE

Culture, the central, pervasive theme, must be defined. Following Schneider (1976) and Daniel (1984:13) a distinction is drawn between norms as patterns of:

> "complete and detailed instructions on how to perform culturally significant actions"

and the culture itself, which comprises:

> "those webs of relatively regnant and generative signs of habit, spun in the communicative act engaged in by the anthropologist and his or her informants, in which the anthropologist strives to defer to the creativity of his informants and self-consciously reflects on the *differance[1]* inherent in this creative product of deference" (Daniel, 1984:13).

In other words a culture comprises a number of signs agreed upon by its members: some idea or sign is accepted as a part of the culture in question when it moves from being privately propounded to being publicly

accepted in that society. The comments which follow therefore assume this cultural emphasis within the total anthropological spectrum.

Cultural anthropology can either concentrate on the nature of culture, or on meanings in a specific culture or subculture, or both. Our focus is on how cultural theories *per se* inform a better understanding of a specific culture or subculture, and hence its use of and interpretation of space and place. Consequently the two definitions of culture provided above contain several significant implications deserving further attention. The "regnant and generative aspects of culture" suggest firstly that at any particular time symbols, or signs as Daniel more accurately describes them, are or aspire to become dominant, while others are already fading into oblivion, or a residual, historic role.

Secondly there are other concepts or ideas which remain intact over long timespans and may even claim to be generic. Both categories carry paradoxically temporal connotations, since for much of its history cultural anthropology attempted to study cultures synchronically - i.e. through assuming by convention an 'eternal present' and ignoring historical methods and the dynamics of time (Radcliffe-Brown, 1940).

Anthropology also tended for many years to ignore regional linkages and influences in its consideration of 'primitive' and economically marginal societies:

> "we are led to attribute a spurious separateness and self-containment to these 'cultures', to overlook the way people were tied into regional systems of trade, exchange and politics, through which ideas as well as objects flowed." (Keesing, 1981:113)

In recent years, partly through pressure from Neomarxists, these historical and regional dimensions have received more attention in cultural studies.

Consideration should nevertheless be given to the most appropriate approach to these issues in specific studies. For example the Australian aborigines and certain New Guinean and other peripheral, geographically isolated communities had not apparently been much

influenced before 1939 by their more sophisticated neighbours, probably because of the considerable distances involved. The slow rate of change of these societies at the time supports this contention. So in analysing a culture one should include intrinsic spatial and temporal, external 'upward' and 'downward' connections (Redfield 1954, and Marriott, 1955).

FOCUS ON MEANINGS IN CULTURE

Just as the discussion until now has focused on the flow of ideas and goods between cultural groups, now the question arises of meaning in a culture. There are two constraining principles - one limiting the interpretations of ideas, the other crystallizing how the anthropologist (or designer) should handle the relationship with his or her informants.

Firstly no culture should be subjected to the procrustean impositions associated with ethnocentric perspectives. Both the early anthropologists, such as Tyler, and many contemporary anthropologists of marxist and feminist persuasion have projected their values onto the societies they were investigating, distorting their conclusions.

Secondly Daniel (1983:13 and 298-300) argues convincingly that the crystallization of a cultural interpretation is the *product of a joint enterprise* between the researcher and his or her informants. This outcome cannot (and should not) be predicted in advance:

> "of all my informants in Kalappur, Sadaya Kavintan was the most loquacious ... He told me point blank that there was no Tamil equivalent for the concept of culture and that he doubted that such a thing existed among them ... He was willing, though, to join in creating a culture for me. He offered me an approximate Tamil equivalent for the term culture, cankati. Cankati means affair, circumstance, news, a matter of interest and also a secret."

The implications of this conception are most evident in arriving at a methodology or anthropologically acceptable approach.

ALTERNATIVE APPROACHES

One fundamental separates anthropological methods from most other aca-

demic disciplines. Where the scientist, engineer, architect or medical practitioner is exposed to a range of principles and techniques - an intellectual toolbox - to utilise in researching, diagnosing, analysing, and solving problems, the anthropologist is given a toolbox, only to be instructed to set most of its contents aside when confronting a new culture. He must first understand what the members of the culture regard as significant in terms of their world view, before exploring how and whether kinship, marriage, power, economic and social structures function within that society.

This ethnographic approach is essential: one has to view the world from a perspective native to that society or substratum (Geertz, 1976). Abandoning this principle can only result in the imposition of the researcher's values onto the culture at issue, distorting his understanding and resultant description, much as the Victorians had done in their studies. To anthropologists this muddling of one's own values, mores or attitudes with those of the group at issue, is the most fatal of flaws.

The most widely used approach in exposing this native perspective relies on neutral participant-observation, usually through prolonged firsthand experience. Frequently it requires the observer to learn the local language and live amongst the community for a year or longer, analysing its constituent facets thoroughly, and testing interpretations on local informants.

Anthropologists have also built up specific linguistic classifications and component analyses to describe the significant domains of a subculture. These are then used to produce a questionnaire couched in terms familiar to the group, on issues and concepts easily identifiable as significant for them (Spradley, 1970).

A second technique entails mapping the territorial and spatial distribution of settlement components and dwelling interiors, analysing the inherent signs and symbolism. Whilst this is more common in architecture (e.g. Vernez Moudon, 1987), an impressive variant focuses on the interpretation of tools and artifacts, given that the city is also an artifact. Archaeologists have concentrated on this field, although its application at an urban scale is less common than might be expected. Ras-

mussen's study of London is exemplary in this regard (Summerson, in Burchard and Handlin 1963). At the level of building types this approach permits an understanding of folk values to be reconstructed for the past without access to former occupants, or allowing personal bias to affect the interpretation (Glassie, 1975: vii).

Rapoport's nonverbal communication method will be discussed more fully below, since it is peculiarly appropriate to the designer's or planner's needs.

RELEVANT ELEMENTS OF CULTURE

In discussing these approaches their focus was assumed; but what are the topics of concern in cultural studies? In his review Keesing (1981) covers twenty major topics, some of which can be excluded or combined, in grouping them into four clusters of related information, to reflect our concern with the social use and design of space. Such regrouping produces four clusters of related information:

- family and kinship, community and men's and women's worlds;

- power, politics, law and custom, and inequality and social structures;

- economics; and

- religious beliefs, ceremonial rituals and cosmic views.

Crucial factors associated with family and kinship include the system of lineage adopted, the nuclear or extended form of the family, and monogamous or polygynous marriages (each wife and her children esconced in a separate dwelling place). There is also a relationship between the place of abode of newly married couples and the determination of property rights by descent. This in turn may affect political alliances.

Community, according to Weber, (in Sennett, 1969: 38) has never existed where there was not a minimum of "an additional estate with at least partial autonomy and ... also an administration by authorities, in the election of whom the burghers participated." However in the looser sense of community as any group living in the same area or having an interest in common, (Webster's dictionary), any village or settlement has this potential. To decide the extent to which this potential has

been realized in the case of nonindustrial settlements, Keesing (1981:272) provides several criteria:

(i) Does the community comprise groups of smaller spatially distinct units similar in their internal structure? Are these separations reflected in subtle segmental or exploded format, (where there are a number of residential units or wards as amongst the Tswana)?

(ii) Is the basis of this structure the descent group, or other kinship groups or neither?

(iii) Are the communities socially self-sufficient or are there exogamous links, economically based specialization dependencies, or administrative or religious connections to the hinterland?

An association exists between these issues and the determination of urban typologies and the definition of cities as will be shown later.

Regarding men's and women's worlds, before the 1970s (Keesing 1981:301) feminists have charged that the former were studied almost exclusively and to the detriment of the latter, but a perusal of writers like Schapera throws some doubt on this claim. The issue is however emotionally charged, and unresolved, but if 'all' societies are dominated by men then would it really be surprising to find this reflected in accurate descriptions? The question then becomes whether this suppression is the result of a power play or of biological necessity? The evidence is confused and the interpretation often ethnocentrically biased. (As with the marxist claim that only 'classes' can dominate one another.)

It is however a reality that women are generally constrained by their childbearing roles. It seems inconsistent though to evaluate women only by comparison to what men do, and to assume that failure to achieve precise equality in this respect implies a second class citizenship. Women need to discover role models which include their unique childbearing ability as a positive element of their identity, rather than deny it as Ortner has done (Keesing, 1981:306): "Woman's body seems to *doom* her to *mere reproduction of life*" (my italics). This could be compared to the claim by some psy-

choanalysts that men attempt to compensate for their childbearing inability by artistic, economic, political or other forms of creativity. Frequently women are exploited, particularly in relation to the constraints childbearing imposes on their working abilities. In the interests of justice they should be assisted to correct this position.

What has this to do with the urban situation? Not only are dwellings divided into male and female enclaves in many cultures, e.g. the traditional Zulu home or indlu (Biermann, in Oliver, 1971) women's miradors in Catholic South America (Alexander, 1969), and Islamic fundamentalist cultures. Many cultures also have 'polluted' and 'sacred' areas reserved for women and men (Keesing, 1981: 340). This may occur on a permanent or periodic basis.

Politics is concerned with the roles of individuals and institutions in the distribution of power - how it is used, gained, transmitted, organised and restrained. Power may be manifested in a highly organised, structured, and/or ritualized form, or it may be bureaucratic. In less complex societies it may even be intermittent, as with the leopardskin chiefs of the Nuer in the Sudan.

Frequently also those who attain a position of power attempt to entrench this privilege - through lineage, laws, customs and religion. Religious legitimization may occur via what Marx called 'mystification' and 'celestialization' processes.

The case studies in Keesing however refer to another role of power structures which he does not stress - particularly in comparison to his concern for that facet of power which entails control over economic resources - the role of political organisations in suppressing or defusing conflict, while trying to achieve accepted goals. This becomes more significant, the more intimately associated the parties to the conflict become. It is worth noting that as the scope of conflict is tightened to familial or lineage questions, the basis of contention focuses on landed and other property and its ownership or division, as well as with the violation of norms. The devices for restricting these internecine disputes include mediation, trials by ordeal, or a hierarchy of courts and formal legal processes.

As societies grow more specialised, these alternatives are reinterpreted with increasing sophistication. In the process many activities are easier to handle via flexible customs rather than rigid laws, because their context is always changing as is the definition of acceptable behaviour. For example how does one react when one's personal space is temporarily but necessarily infringed upon? However customs can also attain the sanction and even rigidity of law, particularly where this agrees with the interests of ruling parties.

This raises the issue of inequality in the structure of society, and consequently before the law. There are many situations where the status in court of the accused, and sometimes the plaintiff, is a function of their class/caste associations (as with the Negroes in the USA before 1962, or Blacks locally before 1990). Those who defy or ignore majority-endorsed customs, even when this nonconformity is involuntary, may attract incensed and unjust reactions - as with drunks and hoboes in Seattle (Spradley, 1970: 129, 155, 182, 206 and 261).

Finally litigation can serve as a boundary-beating exercise where cases are used to strengthen group awareness and unity. Porteous (1977) argues that this is an innate function of the territorial instincts which man possesses in 'common' with primates.

Economics, the dominant concern in Western and increasingly world culture, is susceptible to misinterpretation - both marxists and capitalists assume humans are rational and materialistic, relegating other cultural domains to a 'superstructural' and irrelevant status. Our own convictions in this regard can easily trap us into ethnocentric perceptions and prescriptions, particularly as a concern solely with factors of production, consumption, and distribution is highly debatable, as a societal conceptualization for universal application.

As an example of the difficulties this narrow interpretation causes, consider the case of housing. Dwellings are seen in economic perspectives as having use and exchange value only, but many people regard their home as more than a place of temporary so-

journ. Dwelling in the land has major social, cultural, phenomenological (Norberg Schulz, 1985) and expressive value (Cooper, in Lang et al., 1974). The home is encrusted with signs and associations, with mnemonics which reflect continuities in the cycle of life, and of the personalisation of place.

In the United States, and some other late capitalist societies, there has been a protracted yet apparently random campaign to replace this cultural view of the dwelling and its place in a spatial community, with the idea of house as a commodity to be traded without much compunction, in pursuit of better employment or status. This attitude overlaps with that promoted in what was formerly socialist Eastern Europe. The justification may have been ideological in the latter and market-driven in the USA, but both were associated with a drive for standardization, commodification and mass production, even if 'equity' was theoretically an issue. The result has been to demean people, to ignore their needs and to undermine their ability to build and maintain a sense of community.

The inadequacy of this perspective is reinforced by the research of Fried (1963), Rainwater (1966) and others, who showed that better material conditions following urban renewal could not compensate for the loss of friendships, kinship, memories and community ties. Rapoport (1969) also reveals the complexity and intimate significance of the dwelling in preindustrial societies, as does Daniel (1984: 105-162) in showing how four concepts dominate the Tamil notion of the home:

(i) The house and its occupant must be compatible, since there is a deep association between the two (p109) and hence:

"a house to a Tamil is more than just a structure built to the specifications of the owner. It is like all other forms of substance, in constant flux, mixing with and changing according to the substances that come in contact with it. Even as people are concerned with controlling the substances that combine with their bodily substance, so they are concerned with what substances cross the vulnerable thresholds of their houses and combine not only

with their bodily substance but with the substance of their houses."

Hence various rituals are employed to prevent such incompatibility. These include consulting horoscopes, placing constraints on the choice of a site: and specific rituals for impregnating the 'female' land with the 'male' house: this achieves symbolic expression via the use of a phallic cornerstone; finally the house had to satisfy specific orientation principles (Figure 1).
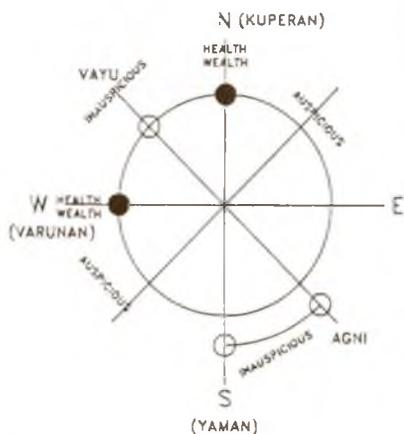

FIGURE 1: *Orientation factors in Tamil housing: Good and bad cardinal points.*

(ii) Certain societal values are transferred onto the dwelling - e.g. avoiding loneliness in the location of the house, (p110) since it could be invaded by unknown substances.

(iii) There are rules of construction, such as deliberately retaining an element of incompletion at all stages, "the house is forever in a state of becoming", since this is a way of warding off evil (p134).

(iv) The relationship between house and temple must be carefully considered; this is an admission that the house and its owner belong to a community under the power of the god and goddess. Therefore houses must be deferential to local temples. They may neither be taller than, nor directly aligned with the divine axis of, the temple. Here the power would be too much for the occupants to bear, most of the time, except when they were in a correct bodily state

(p136-137). Complications occur particularly if the temple is constructed after surrounding dwellings.

Consequently Daniel (1961) finds that:

"the house is more than a mere dwelling place. Both the house and the inhabitants are constituted of similar substances, which they share and exchange. It is culturally more veritable to say instead that the person-house relationship is a union of a 'deindividuated' metonym and a 'desymbolised' synecdoche, wherein some significant quality of the one inheres in the totality of the other, a quality that suffuses and constitutes the essential nature of both ..."

Houses are not people but are so close in nature to them that the similarities are unavoidable.

Religion, ritual and cosmic views: contrary to marxist beliefs Weber found the explanation for the rise of capitalism in the religious sphere. He concluded the Calvinist protestant ethic produced the work ethic, illustrating the impossibility of explaining human behaviour only in economic terms. However Louw Alberts (1992) points out that puritans combined the acquisition of wealth through hard work with a voluntary but implicitly mandatory commitment to use this wealth in acts of Christian charity towards those in difficulty. The point is that no civilization, and probably no culture, has achieved a world view that excludes ideological beliefs based on a concept of the cosmos and the meaning of life.

Whether ultimate power is seen in these existential terms, or in an animist, totemic, humanist or invisible spirit realm, the religious perspective seeks explanations inaccessible by any other means. It attempts to explain the origin and meaning of life, and helps people to cope with disasters and death. In the process most cultures explain and validate the social order, institutionalising arrangements and behavioural norms. For example in cultures where descent and inheritance are traced through first-born male offspring, extreme sanctions are imposed on women whose sexual activities might cast doubt on the child's paternity.

Other religious functions such as rites

of passage (Van Gennep, 1909), processional festivals (Rykwert, 1976: 189) and major constructions, e.g. Chartres Cathedral, the Egyptian pyramids and Aztec ziggurats, reflect Durkheim's contention (1915:8-11) that:

"religious representations are collective representations which express collective realities; the rites are a manner of acting which take rise in the midst of the assembled groups, and which are destined to excite maintain or recreate certain mental states in these groups ... (and that it is a spatial phenomenon) ... All known religious beliefs, whether simple or complex, present one common characteristic: they presuppose a classification of all things, (including spatial phenomena) into two groups ... translated ... by the words profane and sacred."

Marriott (1955:174-176) uses the comparison of local festivals with panHindu holidays to show how local village tradition and (national) great traditions trade meanings in a primary civilization: both incorporate processes of diffusion but each reflects the constraints signs/ideas face in spreading out from the centre (parochialization), or achieving acceptance as they are canonized in core centres of cultures (universalization).

Social structures, eg the Indian caste system (Marriott, 1955), rituals, (as in the inauguration ritual for the ancient Etruscan and Roman towns[2]), and settlement layouts (e.g Peking, Tuan, 1977:39) frequently reflect these cosmic constructs.

SPECIFICALLY RELEVANT CONCEPTS

The discussion thus far has revealed a set of domains and a way of exploring them, which typify cultural anthropology ventures.

However over the last twenty odd years these concepts plus basic concepts from the writings of Weber, Simmie, Park and Redfield have provided a basis for the evolution of a further area of specialization in urban anthropology. This in turn can be divided into the anthropology of cities, and anthropology in cities. Beginning with the conceptual linkage between folk communities and urban culture, the following discussion amplifies

aspects of these two concepts.

THE ANTHROPOLOGY OF CITIES

In trying to understand the generative causes of urban diversity, there are two fundamental types of city which are each associated with a particular cluster of qualities, and which encompass all types of settlement. This distinction was first drawn by Redfield and Singer (1954), on the basis of Redfield's earlier depiction (1947) of an ideal folk society. To him this would be characterized by illiteracy, small scale activity, isolation in space, and a strong sense of group coherence. Behaviour is unthinkingly normative, spontaneous and personal, and there is no legislation: the family is the unit of action within a larger kinship structure. Sacred values prevail and economics is geared to human purposes rather than the abstractions of market supply and demand. The overall social structure is based on 'gemeinschaft' relationships as articulated by Tonnies (1964).

Redfield wished to establish how this situation is transformed into the highly contrasting characteristics associated with city life - literate people linked by excellent communications and involved in large scale enterprises; a heterogeneous, impersonal population, frequently secular, circulating within a highly innovative social milieu.

Redfield and Singer (in Sennett, 1969: 208) found an explanation by "analysing the role cities play in the formation, maintenance, spread, decline and transformation of civilizations." They identified two city types (a) the primary city of orthogenetic transformation which has evolved from a folk cultural tradition by constructing, elaborating and codifying its traditions to safeguard its culture and heritage; (b) the secondary city of heterogenetic transformation, which becomes a centre of economic and technological change. Its cultural role depends on creating and introducing new ideas, beliefs and social procedures.

They admit that the division is impure, and usually there is an uneven admixture. Marriott (1955:197-198) went on to explain this overlap through the processes of parochialization and universalization referred to above, which are associated with the primary city they define. Secondary cities however have

the stronger, more precipitate rate of change associated with colonial hegemony.

If the one type of city differs from the other, are there further categories into which cities can be divided? Fox (1977) argues for five primary urban types - the primary, orthogenetic cities include regal/ritualistic, administrative and mercantile versions, whilst the heterogenetic or secondary city has commercial or industrial versions, as well as the prismatic or late twentieth century post colonial urban culture. Here Fox (1977:119) has adapted Rigg's term "prismatic culture" to describe a culture which refracts older institutions into new forms, in a peculiar, internationally derived form of national parochialisation, existing in conjunction with uneasy, new affiliations. This interpretation accurately describes processes which have occurred in the past forty years in many countries experiencing decolonialisation.

Thus the "red" and "school" Xhosa Mayer (1961) describes, typify people's responses to new (western colonial) models of society based in materialism - either retreat whenever possible into traditional rural enclaves, and treat cities as a resource base to be 'plundered' periodically, or opt for the new possession-based model of society (Sennett, 1969:61-88).

The technologies and economics of the culture can be used to further subdivide these classes (Fox, 1977:21) as illustrated in Figure 2.

These categories are based on the belief that the central issue is whether and to what extent state power is dis-

played. This ties in with questions like: How much coercion is there? How is it distributed? How specialised are the manifestations of power, and how is access to power attained - by birth or ability? Are there special functions and bureaucracies?

Where does the evolution of urban cultures end? Spengler (in Sennet, 1969:36-44) viewed the separation of secondary cities from their rural hinterlands with enormous misgivings, being convinced that as the city emerges from its rural gestation, so it draws a growing quantity of its sustenance from its hinterland while becoming emotionally and intellectually independent of it. The city grows until it absorbs and is the world in its inhabitants's eyes. The prevailing balance is lost: now the city exploits the countryside thoughtlessly and heartlessly. Even the natural elements of urban life disappear, ending with childlessness.

This pessimism is more justified in relation to cities in secondary civilisations than primary ones, although universal ideologies like capitalism and marxism are pressuring even these. Spengler's prediction though is of a citizen left barren, both intellectually and physically. The most disturbing aspect of his observations though is how accurately they are reflected in the growing anomie, violence and disunity of our urban societies.

ANTHROPOLOGY IN CITIES

At this stage understanding the historical development of the city and its cultural role becomes intertwined with the study of subcultures within the metropolis and megalopolis. What can anthropology tell us about the nature
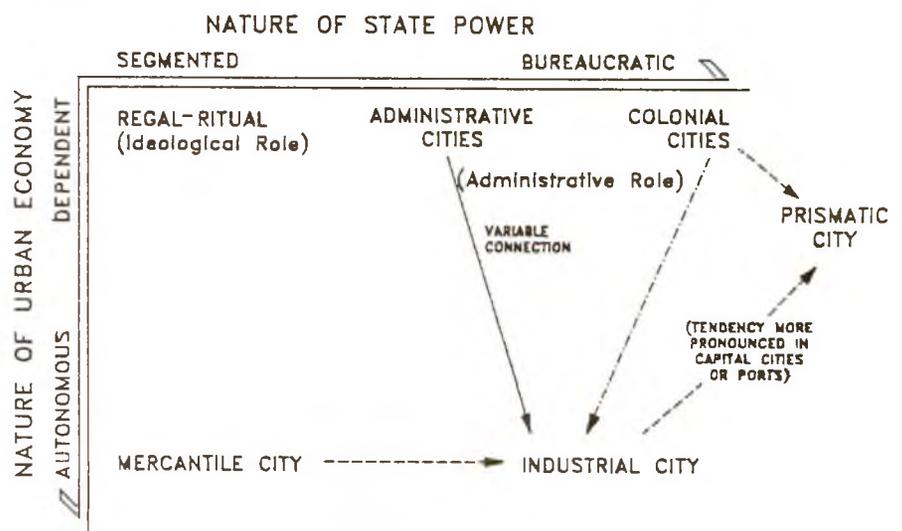

FIGURE 2: *Classification of urban types adapted from Fox*

of these subcultures which compose the heterogenetic cities in which a large proportion of the world's citizens live? However diverse the larger, crosscultural picture may be, the internal urban dynamic is no simpler. Hannerz (1978) catalogues almost a century of urban research across the world, displaying the variety of cultural groups inhabiting contemporary cities. The book includes chapters on the slums of hope and despair debated by Suttles and Lewis, on the inadvertently marginal dance hall girls of Chicago in the 1920s, on teenage gangs fighting over territory in the post World War II era (Suttles and Whyte), on the modernizing Africans of the copper belt (Max Gluckman), and Spradley's (1970) study of the West Coast hoboes mentioned earlier in this paper.

A few generalisations seem possible: not only does each group have its own territory and diurnal cycles, but these overlap in uniquely complex ways and in the more marginalised cases often demand a range of stratagems for members to remain free, by evading police attention. In the turbulent strife-torn societies of South Africa today, not only the police but also political opponents can trigger these evasive measures.

In coping with these circumstances people develop highly specialized lifestyles: taking Spradley's example because it has so many local resonances, the tramps and hoboes he focuses on select locations for very specific ends - places to sleep ("flops") have to satisfy many criteria, and are classified into approximately ninety different versions. Other domains for which they possessed an extensive and accurate terminology included police stations and jails. Even the hoboes themselves had categorized their 'trade' into seven or eight types, using mode of travel, extent of dependency on formal employment, and the geographic extent of their travels in relation to their home base.

As Hannerz (1978:110) remarks:

> "The larger the population, the more choice potential in associations there is per person ..."

Specialization not only applies to urban employment, skills and organizations/institutions but also to the culture within the city. If it was true for Alexandria or Rome in classical times, the advent of industrialization, nineteenth century colonialism, and the subsequent emergence of the ethnically diverse, pluralistic city in the first and third world equally, has made this a century of heterogenetic cities. This tendency has been strengthened in recent years by exogenous forces, including transnational corporations, TV, movies and other media and communication technologies.

However Van Niekerk (1986:50-66), amongst others, has pointed out the continuing significance of religious beliefs and customs in dealing with development. This was of course one of Patrick Geddes's fundamental precepts in planning for some fifty cities in India, between 1915 and 1928 (Tyrrwhitt, 1947).

As this seething mass of urban, polyglot populations swells daily in number and extent, the traditional methods of moulding them into united communities have become weaker. Rapoport (1982) has suggested the physical environment has proportionately become more significant in consequence, as dress, customs and codes of behaviour became unreliable indicators for social interaction. The environment provides cues for behaviour via its own structure and character, and the shared meanings (and experiences), it offers all users. This is not an argument to return to the deterministic notions of the modern movement: instead it accepts the environment does not determine behaviour, but it certainly constrains it in various ways.

MEANING OF THE BUILT ENVIRONMENT

Rapoport (1982) examines the three approaches available for deciphering cultural meanings in the constituent elements and compositions of an environment:

- Semiotics - derived from linguistic analyses;

- Symbolism studies - as undertaken traditionally;

- Nonverbal communication model.

The first method, which Rapoport calls semiotics, but which is really De Sausserian semiology, (since Pierce's semiotics is not language based), Rapoport rejects because it is so cumbersome to apply, and has not advanced much since its inception. The traditional approach as described above also has drawbacks in practice. It depends on protracted periods of field observation for which there is seldom enough time, and usually focuses more on behaviour and conventional tools, and clothing/artifacts than on spatial and environmental aspects.

Rapoport (1982:121) therefore offers his nonverbal communication theory, which relates signs of any sort to people's behaviour, and in particular on how the sign affects the interpretant (See also Daniel, 1984:Ch 1). Features, whether fixed, semifixed or non-fixed, their context, and their relationship to their setting, are prime components of this approach. Cues or elements which 'speak' out of their context with advice on what to do, depend on being noticeably different from their background if they are to be seen. The cue may even be part of the required level of message redundancy needed for the message to be correctly received in good time.

His approach includes three steps:

- Observe the study area, both first hand and through aerial and historic photographs;

- Extraction of fixed, semifixed and non-fixed cues by analysis and intuition;

- Systematic investigation of cue hypotheses by discussion with natives of the culture.

Rapoport (1982:106-107) uses this approach to explore the range and place of clues in the overall nonverbal communication system. These systems always include six components: an elicitor, a limited range of elements, the cultural code or display rules, the built environment with its inherent cues, rules for comprehension (and filtering processes associated with them), and the resulting behaviour (Rapoport, 1982:120 Figure 17).

The environment though affects the elements present in the setting, the range of cues, and the final behaviour. It is influenced by the elicitors, the display rules, and the observer's comprehension filters and behaviour, in some cases directly and in others indirectly. It is therefore possible to determine whether one is in a public

or private, front or back, (formal or informal) men's or women's realm of a given culture. The environment provides the cues, but the idea of behavioural norms appropriate to that setting is determined socially, through an interpretative process.

In a sense the environment is a stage-set with props, scenery, actor(s) and audience. The props are either *fixed feature elements*, (with slow rates of change) e.g. walls, floors, roofs, streets, parks or termini, *semifixed feature elements* (screens, furniture and curtains, plantings, signs, etc., or *non-fixed feature elements*: human occupants of spaces, their body positions, postures and 'language' (proxemics and kinesics).

Both non-fixed and semifixed features are liable to rapid and irregular cycles of change. Hence they offer maximum scope for personal expression.

According to Rapoport (1982:111-130) significant qualities include colour, centrality, absolute size, scale, settings, approaches, entries, and spatial sequences. Of these, colour, size, shape, and position are primary determinants in determining similarities. Rapoport (1982:152-168) also provides a full discussion of cues in American culture. In the process he stresses the importance of the distinction between building fronts and backs. This could be partly for reasons of prestige - the extreme example being the false front on western frontier sheds as immortalized in cowboy films, and its imitation in some of Venturi's earlier (1964) structures, or its expression of the transfer from public to private domains. In the Barriadas (spontaneous settlements in Peru), people even install their front door before the house is roofed.

Another important point Rapoport (1982:186-191) makes is that the understanding of environmental or other cues depends on predictability:

> "each time something is used to predict fully and successfully, the services, product, behaviour etc. ... the connection is reinforced."

This is supported by Smith's (1974) conceptualization of cognitive processes. The absence of this historic or contemporary predictability was one of the difficulties associated with the rise of the modern movement and the

building types it promoted between c.1920 and 1970.

On the basis of this review of the concepts perceived as valuable for urban designers, their implications for the urban designer, are explored through a discussion of their memory arousing potential, and a case study.

MNEMONICS

There is a risk that focusing too narrowly could cause one to overlook those activities which permit people to extend or renew their awareness of particular urban places, symbols and cues. Environmental psychologists have discovered the significance of personal experience in the interpretation of the built environment, and its function as a human artifact. However modern civilization has lost many of the rituals and ceremonies by which cultures formerly rededicated and restated their ties to a region. To illustrate its significance in pre-electronic media times, Rykwert (1976:189) describes the importance of Roman festivals in uniting citizens with their physical city:

> "I have been concerned to show the town as a total mnemonic symbol, or at any rate a structural complex of symbols in which the citizen, through a number of bodily exercises such as processions, seasonal festivals and sacrifices, identifies himself with his town, its past and its founders. This apparatus of exercises ... was ... in some sense conciliatory and integrative, (what Freud calls "normal") ... The attachment to one's environment allows for emotion to be discharged in appropriate signs ... words and action."

CASE STUDY

If, as Bazjanak argues, design revolves around a dialogue to resolve the wicked problems confronting architects and planners, (Rittel and Webber, 1972), then there is a decided overlap between the designer's situation in the formulation of the brief and its interpretation, and that of the anthropologist trying to interpret a culture through his or her informants. This overlap approaches totality when the designers' clients stem from an alien culture, and the brief becomes laden with a multiplicity of familiar and strange meanings from both sides.

Several examples from the development of Mmabatho over the last 15 years are used to show the value of an approach based on the cultural anthropological concerns and principles set out above. Fuller descriptions having been given elsewhere (Boden, 1989 and 1992).

METHODOLOGY

The methodology employed was a combination of Rapoport's nonverbal method with elements of participant observation, whether historic (Schapera's excellent studies of the Tswana from the 1930s until 1970) or current (Hardie's 1981 study, in combination with my own 1986). The limited resources available in the latter case were seen less as a constraint than as a realistic representation of conditions in reality, where consultants would seldom have the financial or temporal resources for a year long participant observation study. Furthermore, as with many situations in Africa and South America, there is little or no precolonial historic record, and evidence from that era has to be based on archaeology or oral traditions.

After an initial trip to identify the suitability of the site, and identify a base of operations, the work commenced with an analysis of the five settlements constituting Mmabatho-Mafikeng[3] as it then was, and the identification of significant places, in terms of useage or the lavishness of the resources poured into their development. These and a range of typical house types were photographed and used to extract significant characteristics through discussions with half a dozen male and female informants respectively.

The tentative conclusions were tested on two larger groups, and two black headmistresses, both experts in Tswana culture. Other inputs came from discussions with a group of Tswanas, all possessing tertiary level educational qualifications, and with the consultants involved in the major case studies.

From these investigations a set of seventeen cues were extracted (Figure 3).

IDEA OR SYMBOL	INDEX OR EXPRESSIVE ELEMENT	PROCESS BY WHICH ESTABLISHED	CHANGES IDENTIFIED	LEVEL OF APPLICATION
1. PRIVACY	a. TRADITIONALISTS: COURTYARD b. PASSAGE HOUSE (MODERNISTS). c. TOILETS LAUNDRY AT BACK OF HOUSES.	ACCULTURAL EMULATION ACCULTURAL	* COURTYARD BECOMING A SOCIAL FOCUS IN PHOLA, NOT A FAMILY (PRIVATE) ONE. 'BACK' LESS CLEAR	INDIVIDUAL FAMILY COMMUNITY
2. AUTHORITY (SACRED BY NATURE)	a. CHIEF LOCATED ON HIGHER GROUND. b. RAISED STEP AT ENTRANCE TO LOLWAPA/ c. WALLED OFF SPACE d. CLEARED ZONE AROUND HOUSE.	COSMIC/CULTURAL BELIEF ACCULTURAL ACCULTURAL ACCULTURAL (ORIGINALLY FUNCTIONAL?)	1. REDUCED TO PLATFORM/STEP AT HOUSE'S FRONT DOOR. 2. TREATMENT OF PLOT AS COMPRIZING TWO ZONES - WALLED (SPECIAL) ZONE, AND FENCED GENERAL ZONE	TRIBAL FAMILY
3. MEN'S AND WOMEN'S ROLES OR WORLDS	a. WOMEN'S PRIVATE REALM WAS LOLWAPA YARD. b. KGOTLA AND KRAAL FOR MEN ONLY (NORMALLY).	ACCULTURAL MEN EXCLUDED ACCULTURAL WOMEN USUALLY EXCLUDED	1. REPLACED BY 'THE' HOUSE AS THEIR REALM: DUE TO ABSENCE OF MEN AS MIGRANT WORKERS, AND TENANTS 2. CATTLE GONE. CUSTOM WEAKENING	FAMILY COMMUNITY TRIBAL
4. IDENTITY OF SOCIAL GROUPS	1. KGOTLAS AND WARD TRIBAL FOCUS. 2. WALLS HEIGHTS REFLECT GROUP MEMBERSHIP. 3. LOLWAPA AS FAMILY FOCUS.	ACCULTURAL CHIEF TRYING TO REINFORCE TRIBAL ROLE OF KGOTLA (GARATSIDE)	COMMUNITY LEVEL BEING UNDERMINED AS KINSHIP GROUPS SPLIT INTO NUCLEAR FAMILIES. INDIVIDUAL FAMILIES STRESSED - LOLWAPA FAVOURED OVER KGOTLA.	FAMILY. (COMMUNITY) TRIBE.
5. SENIORITY	1. RIGHT MORE IMPORTANT THAN LEFT. 2. WEST MORE SO THAN EAST.	ACCULTURAL	WEAKENING RESPECT FOR ELDERS / TRADITION	SOCIETAL
6. DEGREE OF MODERNISM	1. BUNGALOW = TOTAL COMMITMENT. 2. HYBRID: BUNGALOW PLUS TRADITIONAL COURTYARD = IN BETWEEN 3. COURTYARD = TRADITIONAL 4. TEMPORARY = NOT YET COMMITTED.	ACCULTURAL INFLUENCED BY: HEALTH . MATERIAL SHORTAGES . EUROPEAN & CHIEF'S EXAMPLE . INDUSTRIAL DETRITUS / CAST.	MAXIMUM: ABANDONS CULTURE. RETAINS SOME LINKS WITH PAST. DOES NOT WANT TO ABANDON TSWANA CULTURE (NB - POSTITON & ROLE OF COURTYARD).	FAMILY

FIGURE 3: *Table of symbolic elements or cues*

MAFIKENG-MMABATHO

This city was ideal for the study, holding geographic and climatic factors relatively constant, but displaying considerable cultural and morphological diversity (Figure 4). Each era has left its mark on the urban form. The Barolong tribe built their vernacular capital, Montshiwastadt, around the chief's Kgotla at GaRatside, beside the Molopo River, during a period of intense oppression by Cecil Rhodes and his lackeys in the shortlived Republic of Goshen (1881-4). The British laid out a gridiron colonial administrative centre at Mafikeng adjoining their military post in the Imperial Reserve. Later the Afrikaner Nationalist government following Apartheid dogma relocated coloured people to Danville and built a mini-Soweto at Montshiwa, north of the Imperial Reserve. Finally a resurgent Tswana power located its capital at GaRona, even further north, attracting a vast informal settlement in its wake.

The population, declining during the 1960s following the departure of the British, grew rapidly after Bophutatswana's establishment to 130 000 plus in 1987. While this had its own political dynamic, the settlement's economy remained dependent on money sent home by migrant workers, and a large bureaucracy.

HOUSING

Montshiwastadt's housing comprises several sequential types reflecting growing European influences and current preferences for large windows and corrugated iron roofs now associated with modernity in the minds of most of the younger Tswanas. However the Kgotla plan forms are retained in the older residential areas, following tribal land tenure rules and a residual, if dwindling awareness of the social benefits of a lifestyle built around extended kinship patterns.

> "Mmabatho is everyman for himself (but) ... in the past there was a feeling of community ... (and in Montshiwastadt) I always see the people there as more adjusted than we are ..." (Dr Bothlale, interview, 1986).

In the case of Montshiwa, there is no real connection with Tswana cultural norms and principles, and its major impact is found in the perception by local headmen that the grid layout adopted at Montshiwa was the modern, correct way of laying out neighbourhoods. This interpretation is supported by Hardie's (1981) findings in Botswana.

In the new post independence areas the case of 'Beirut'[4] raises significant issues. Here the architects aimed to

FIGURE 4: *The various settlements at Mmabatho.*

produce a better alternative than the Soweto model offered. They based their solution on the Lolwapa/Kgotla precedent, and created two clusters of modern houses around cul de sacs. The solution was however rejected by the people for whom it was intended, because psychologically the houses were seen as stylistically foreign with insufficient privacy; functionally, the houses are difficult to expand and symbolically the windows were small and hence 'oldfashioned'. Most important, the social relationships which Tswanas regard as the primary reason for creating a Kgotla, were ignored. In the Tswana view resident families must have some connection with each other, otherwise the arrangement of houses is meaningless (Group discussion, 1986).

THE NEW CAPITAL

The government building secretariat at GaRona is even more concerned with symbolic issues than the housing. The government required architects and planners to work concurrently on the master plan for the new city and the design of the secretariat. President Mangope refused to meet the architects, who had been appointed by the PWD, meeting only with his planning consultant.

These relationships were not resolved nor were there arrangements to explicitly co-ordinate their proposals. Inevitably confusion and conflict followed. President Mangope soon advised the planner that 'western' style grids were unacceptable, whether as plans or buildings. He was intent on achieving a sense of Tswana identity not just an image: he was very specific on this point.

The planner was then forced to draw on his academic architectural training to find an acceptable 'modernised' version of the Tswana precedents, using Baroque and Unwinian precedents in developing his plan.

The architects, deprived of access to the client, reverted to archaeological inputs, (unreliable about current preferences), and to an eclectic range of architectural influences (Kahn, Piranesi, Herzberger, and John Andrews), in their scheme. Their first proposal included a grid of courts and office pavilions, and a triple cluster of spaces comprising the Kgotla. It also had small windows and insubstantial wall screens poised on vee-shaped supports. (Figure 5A)

When their scheme was presented President Mangope rejected it out of hand, because these features contradicted traditional Tswana useage, (walls were defensive, solid, and rooted very firmly in the landscape), or emerging associations (between e.g. windows and modernity). At his insistance the second scheme (Figure 5B) evolved around a horseshoe-like office block embracing a single, central space.

It satisfied nine of the seventeen expressive cues compared to only four in the first scheme. Not surprisingly it was then built. Subsequently the second phase, comprising the Parliament, further Kgotla, and the Supreme Court, etc., was designed by the same firm of architects, using some of the ideas identified in this research. It was accepted without difficulty.

CONCLUSIONS

It is clear that anthropological considerations have a pervasive influence on the activities of planners and urban designers. By adapting the Wolfe and Shinn (1970) urban design procedure to incorporate Rapoport's nonverbal communication method, and the modifications described previously (Boden, 1989), an approach has been devised which addresses many of the problems identified above, and yet minimises the demands on limited resources. The steps of this approach are detailed in Figure 6. The critical differences include the parallel cultural and functional paths in the problem recognition stage, the extent of community participation (see participation axis at the bottom of the figure) and the use of expressive cues.

Most of the interrelationships that have been examined are shown in the
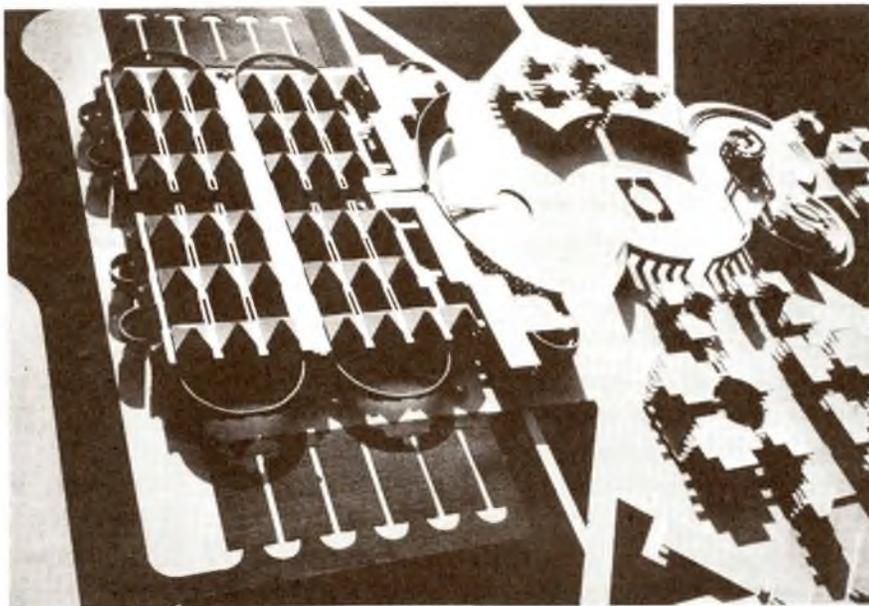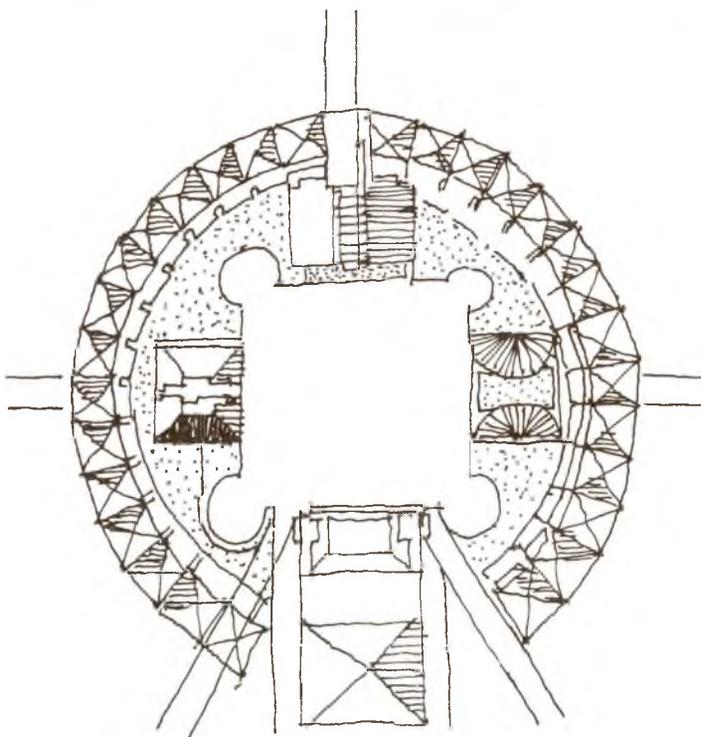
FIGURE 5(A): *The rejected scheme for GaRona.*

FIGURE 5(B): *Plan of the accepted scheme.*

matrix (Figure 7). However to avoid ethnocentric biases this matrix should be rescored each time it is applied to a specific culture. Carrying out that exercise alone would be instructive for planners/urban designers in grappling with the connections reflected in each matrix cell: it would force an evaluation of the significance of each element for that cultural context. This would apply equally to historic and contemporary studies or projects.

In heterogenetic contexts the analysis for each group and cellular relationship

should be cross-compared with findings for the other groups, following on from relevant ethnographic studies. In practice there may be insufficient funds to permit this in its entirety. Acceptable substitutions might include employing an anthropologist familiar with the exogenous culture, or conducting literature surveys on existing writings about the culture if they exist and are recent enough to have validity. Older material is also useful because it focuses one's mind for the sort of studies Rapoport recommends.

Perhaps the fundamental principle would however be to use the sequence of steps detailed in this paper as a guide, ensuring compliance with the norms in the earlier part of the paper, regarding the nature of culture and the cultural anthropological perspective and approach. From this comes an awareness of the significant 'variables', as a basis for the investigation of specific cues, mnemonics and other details.

Two further points need stating: firstly, there is a crucial difference between the role of the designer and that of the anthropologist, although it is believed that this does not invalidate the approach recommended here. Anthropologists are expected to observe without intervening in the culture (to the extent that this is at all possible), but planners and urban designers *are* expected to change the status quo, through the advice they give their clients. They are introducing new ideas to the community or communities they are dealing with, and these must be discussed, accepted, (at least by the majority) and internalised by the people concerned, to gain legitimacy before in the author's opinion, being applied.

Secondly, the adoption of this approach represents a specialised form of public participation. Public consultation is insufficient and unacceptable because it omits the deference Daniel specifies, and prevents that combined act of spinning meanings which the interpretant and informant indulge in, as they jointly uncover the cultural meaning of the phenomena in which they are interested.

If nothing else, the importance of discovering the 'native point of view' should be recognised in all planning and urban design projects within this complex, culturally pluralistic country of ours.

NOTES

1. Daniel has adopted the term differance from Derrida (1973), as it is intended to signify two notions simultaneously: (i) to defer to one's informants' opinions coming as they must from within the unfamiliar culture. (ii) to accept differences exist on account of spatial separation and consequent articulation into specific regions and cultures.
2. In Rome's founding legend, Remus's crime was one of sacrilege when he flouted the distinction in Roman minds between the sacred city and the profane hinterland, by leaping over the boundary furrow. This could also be regarded as abrogating their rites of passage.
3. For ease of recognition, Mafikeng - the original Tswana name - will be used throughout, rather than its anglicisation into Mafeking.
4. 'Beirut' has been used several times both here and elsewhere, in Alexandra township for instance, to describe an area regarded as foreign or strange.
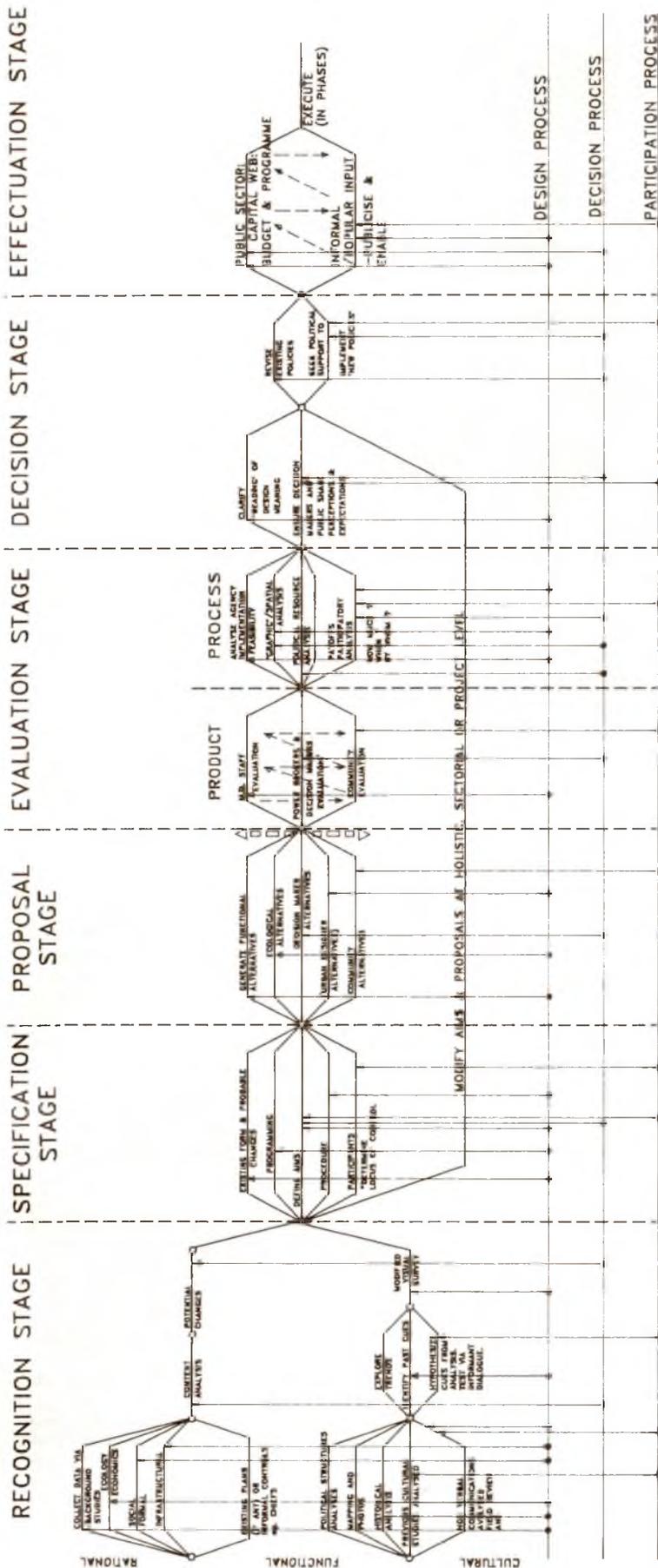
FIGURE 6: *Revisions to the Wolfe and Shinn Procedural Model.*
Incorporating the emphasis on dialogue and the identification of,
and use of, expressive cues.

FIGURE 7: *Matrix of cultural factors in relation to*
planning and urban design principles
and processes.

KEY

● STRONG RELATIONSHIP

◐ MODERATE RELATIONSHIP

○ INDIRECT RELATIONSHIP

▢ (BLANK) NO CONNECTION

RECOGNITION STAGE | SPECIFICATION STAGE | PROPOSAL STAGE | EVALUATION STAGE | DECISION STAGE | EFFECTUATION STAGE

DESIGN PROCESS

DECISION PROCESS

PARTICIPATION PROCESS

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