

# URBAN DESIGN AND PLANNING AS PRAGMATIC INQUIRY

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*Manuscript accepted September 1991*

*As urban design emerged as a separate discipline over the past 30 years, it became embroiled in a confused relationship with architecture and planning. This paper seeks to clarify the relationship between urban design and planning, using the common threads of pragmatism, as revealed by an historical overview of theory and procedures in both fields, to establish areas of overlap in approach and concerns. These include the dialectical nature of wicked problem resolution, and the significance of process in both disciplines.*

*Subtle differences are also pointed out,*

*concerning values and aims, the differences between inadvertent and deliberate design, and their significance for both disciplines, attitudes towards context and the degree of abstraction assumed treating spatially-related phenomena, problems and solutions, and the skills required for urban design.*

*General implications include the potential for urban designers and planners to play truly complementary roles in the Republic, and the need for a common approach based on open,*

*participatory procedures. This should also recognize those areas of expertise in which each of the two disciplines can make the greatest contribution: urban design in the shaping of the built environment, specifically regarding housing to accommodate rapid urbanisation, and planning in ameliorating socio-economic issues. During their training, students in both disciplines should acquire a firm grasp of their respective areas of expertise, and learn how to cooperate with members of the other, and related disciplines, in striving towards better quality urban environments across the nation.*

## INTRODUCTION

Architects and planners in the UK and USA have disagreed over their respective roles, and visions for a better society and the urban context to house it, for at least thirty years. As urban design emerged as a discipline during approximately the same period, stresses have also occurred over its role in relation to the areas of expertise of planning (Toon 1986), architecture, (Senior and Wood, 1987) and landscape architecture (Knack, 1984). These positions have generally involved protecting professional boundaries rather than a commitment to define the scope of urban design as a discipline. Furthermore, while the debate over the relationship with architecture has been extensive if inconclusive, the links with planning have been misunderstood, or neglected. Toon (1986:5) for example mistakenly believes that urban design is an integral part of urban planning, that the skills of an urban designer are those of an urban planner, that the processes are the same and implementation is identical.

Yet this position is contradicted by the editorial in the issue of the journal in which his paper appeared:

There is growing concern that the quality of new urban development in many Australian cities is mediocre,

and that the existing professions of planning and architecture are incapable by virtue of their training methods and operating processes, of doing anything about it.

This impotence could perhaps be ascribed to the failure of planning and architecture to give urban design the academic attention it deserved as an interdisciplinary activity: thus Kreditor (1990:155, 156) states concerning American experience:

... this singular period in American urban history failed to produce a coherent body of urban design theory, ... (and) the expansion and empowerment of planning has failed to inspire a vision of urban life and form.

Similarly Bunker (1990) is vague about the nature of urban design, confusing morphological aspects of urban design with metropolitan planning.

It is therefore the intention of this article to examine the relationship between planning and urban design more closely, explicitly identifying significant disciplinary conformities and differences.

A point of departure is Hoch's (1984) concern with the relationship between pragmatism and planning theory, and

Broadbent's (1990) discussion of theory in "Urban Space Design" – covering both urban design and aspects of architecture, in relation to the dominant architectural paradigmatic underpinnings of rationalism, empiricism, and pragmatism. These sources suggested a disciplinary overlap in relation to pragmatics.

The aims are therefore to examine the history of each discipline as a series of pragmatic developments; to identify major theoretical and conceptual overlaps and differences in the two fields, and to establish how they might affect education and practice in South Africa.

The approach adopted compares the historical development of theory in both fields; identifies common problems and areas of agreement and incongruity and lists some local implications and proposals for further action.

## THE EVOLUTION OF PLANNING AND PLANNING THEORY (1945 – 1990)

Cherry in the UK (1974) and Scott in the USA (1969) have detailed the evolution of planning from a professional perspective; however Boyer (1983) chooses a broader, more open range of American sources, following Foucaultian principles, thereby illumi-

nating planning thought within its political and social contexts, and explicating its changing concerns.

These range from the perceived need to order the threatening complexity and heterogeneous populations of the industrializing city of the later 1800's, to the desire for the City Beautiful (1890-1910), the City Efficient (1920s 1940s), and the mandate for large scale public intervention during the Depression and World War II.

It is a chronicle of expanding spheres of interest (Figure 1) and cyclical fashions in procedural theory, reflecting a desire to solve problems comprehensively, logically and for the social well-being of all. Boyer concludes that the political and cultural context in the USA was never totally comfortable with extensive public intervention where it is perceived to confine or control private initiative and capital formation.

In Great Britain planning followed a more institutionalized path and, due to a similar conflict between market-oriented freedom and state welfare notions of planning, really came into its own only after the Second World War. The Welfare State nurtured an acceptance of planning (1946 to 1979) before wilting under the onslaughts of Thatcherism.

By 1960 therefore, social concerns encompassing a unitary view of the public good in combination with the synoptic vision championed by Geddes and Mumford, had become normative for planners. A widening grasp of the intricacy of interrelationships between the complex forces acting on the city and region culminated in a widespread commitment to the replacement of "blueprint planning" by a more dynamic version.

This represented the triumph of a rational technocratic approach to problem solving in the West, yet politically driven blueprint and comprehensive master plan hybrids became the dominant paradigm in South Africa, influenced by the Group Area and other apartheid legislation between 1950 and 1988.

### THEORETICAL CHALLENGES TO RATIONALITY

Between 1960 and 1975 in the USA however there was a reversal of emphasis. Initially acknowledged as an analytical and synthesizing norm, both procedurally and substantively, the rational comprehensive approach was in practice difficult to implement, particularly in the many large scale urban renewal projects of the 1950s and 60s.

New pragmatic and ideological perspectives, reflecting the wider interests of a new breed of students and academics from the social sciences, generated extensive criticism of this approach and its underlying rationalist philosophy. Considerable energy was therefore devoted in the 1960s and 1970s to exploring alternative philosophies and associated procedural models. Summed up in the acronym SITAR, these comprised incremental, transactional, advocacy and radical options and contrasted with the "synoptic" (Hudson, 1979). Their characteristics have been extensively debated elsewhere, (e.g. Fainstein and Fainstein, 1971, correlated them with political systems; Bolan (1967), and Faludi, (1973) placed these approaches in broader contexts.

### DEVELOPMENTS INTO THE 1980s

The synoptic approach enjoyed a fresh surge of support during the late 1960s under the guise of systemic planning often incorporating computer modelling. But by 1973 (Lee) this too was under attack, on account of logical inadequacies and technical opacity, particularly in the eyes of a sceptical public in Europe.

Instead planning theorists like Davi-

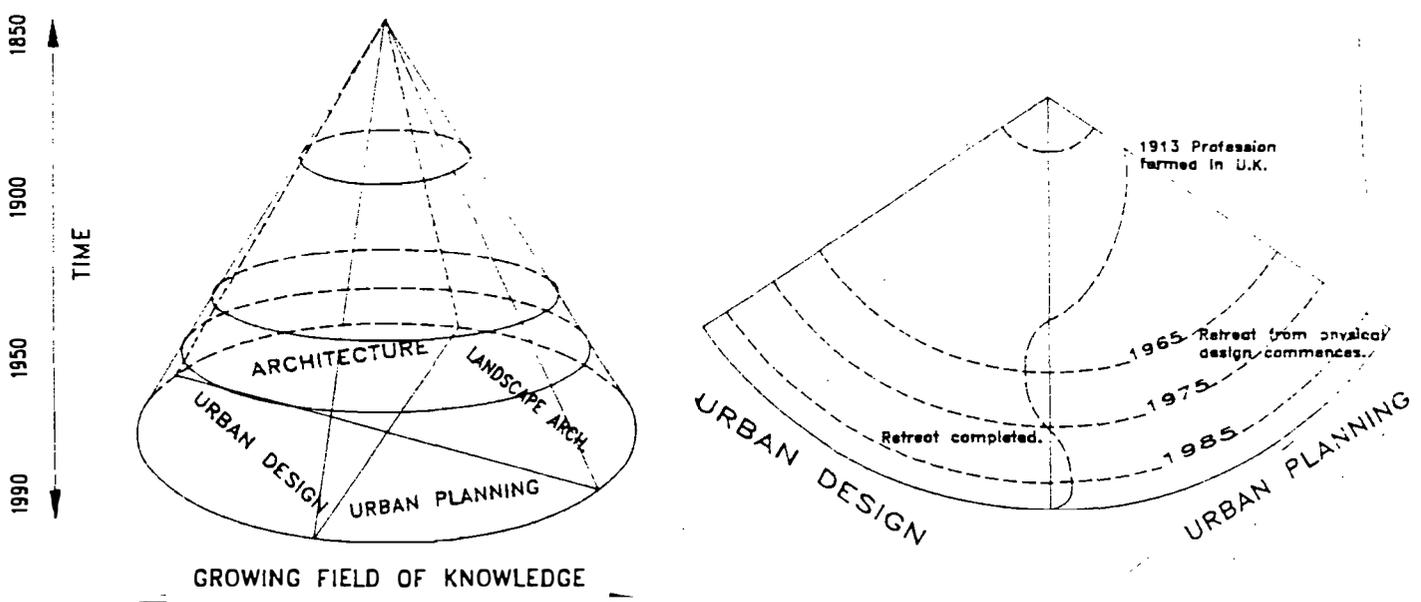


FIGURE 1: *The Emergence of Urban Planning and Urban Design.*

doff argued planners should advocate the interests of the powerless, thereby making the first deliberate political connection to planning. Others like Camhis (1979) and the Fainsteins assumed a marxist ideology, critiquing the comprehensive approach's dependence on an "indentifiable" unitary public interest, its indifference to community and class conflict, and to foggy decision environments. Forester (1980 and 1983) employed Habermas's critical theory to explore the boundedness this opacity created for the planner, whilst De Neufville (1983), employing a pragmatic perspective, rejected the negativeness of much of this criticism, and looked instead for a new paradigm born of practical experience and capable of providing guidance for the conditions under which planners operated.

Acceptance of these concepts entailed training planners with new skills like mediation (Susskind and Ozawa 1984), awareness of the political implications of the information they gather or control (Forester, 1980), and of the ineradicable role of political processes in the determination of resource distribution issues. (Forester, 1980 and Hoch 1984).

Faludi and others have over the past six years launched a 'neorationalist' counteroffensive, but there is little likelihood as Faludi (1985) acknowledged, that the rational comprehensive approach will regain its former undisputed status. He accepted that rational methods only become viable once objectives have been established through political decisions (whether empirical, pragmatic or ideological in origin).

Currently, in response to the collapse of the marxist states of eastern Europe, the neomarxist theorists in the USA are casting around for alternative directions to pursue. (e.g. Burgess, 1990). Bound by political intransigence for much of this time, planning in South Africa has barely responded to these issues, despite the efforts of a professional minority, primarily linked to the English language planning schools to change this.

### **HOCH'S USE OF DEWEY'S PRAGMATIC PHILOSOPHY**

In seeking to reintegrate this frag-

mented field of planning theory, Hoch (1984) demonstrates how the SITAR procedural theories fit within Dewey's pragmatic conception of human action, satisfying the planner's need to "do good" and "be right" simultaneously. He describes Dewey's concept as resting on three principles:

*Problem definition* is a form of experience – in everyday life efforts are made to change the existing by projecting future action on the basis of past experience, rather than ideologically-rooted deductive reasoning. So the existence of a problem and the development of a solution both emerge from experience.

*Plan formulation* is a form of pragmatic inquiry where, according to Hoch (1984: 336) "truth emerges when an idea (alternative/ hypothesis/plan) proves successful in solving a problem.

*Plan implementation* is a form of democratic participation – here a distinction is drawn between planned and planning societies. The former socialist societies of Eastern Europe represent planned societies: planning is centralised, and undemocratic, requiring authoritarian, imposed, hierarchical planning and physical or psychological coercion for its realisation. By contrast a planning society must entail an interactive, or transactive approach (Friedmann, 1974). Here, intelligent action emerges from a thorough grasp of the empirical/pragmatic context, generated through public discussion or debate.

Hoch completed his argument with two caveats – Dewey reconciles values (doing good) with knowledge (being right) by relating the goals of human development to a learning process, ignoring often powerful political and institutional constraints on free learning. Secondly, Dewey assumes learning is fundamental to the human psyche, yet does not explore the necessity for a context of mutual trust to facilitate such learning, or the consequences when pluralistic social structures generate trust destructive value-based conflicts. Hoch (1984: 342) concludes that all three activities remain "guided more by the force of politics than by force of argument".

Hoch is here using politics in its widest sense rather than to describe the interests and concerns of the polis or

*gemeinschaft*: corporate economic interests and power are currently more significant than those of the polis. Certainly Friedmann's (1982) conception of the imbalance between political and social power and aggressively expanding economic power, remains valid, strengthening this claim.

To identify commonalities and incongruencies between these trends and the growth of urban design theory the evolution of the latter is now reviewed.

### **THE EVOLUTION OF URBAN DESIGN AND RELATED THEORIES**

The term urban design was first used in 1957 at a conference at Harvard; the discipline was perceived to be needed to close the widening void between planning and architecture. The former's increasingly theoretical constructs were becoming less three-dimensionally focused and more geographic or spatially two-dimensional due to a preoccupation with the delineation of historic, social, economic and political processes or influences. Pragmatic and empirical architecturally related questions of concrete form and sensory experience were being displaced by mathematical and social concerns. Declining support for blueprint planning reflected this shift in orientation both in the UK and USA.

Concurrently architecture was becoming embroiled in a battle between the "new empiricism" of an ageing, somewhat disillusioned establishment and the socially-oriented, iconoclastic "brutalists" lead by Team 10. This bitter tussle left architects with neither the surplus energy nor the desire to seek accommodation with this new breed of planners from non-design backgrounds.

In the USA the war and its aftermath caused the design of the urban environment to be divided between architects, engineers and landscape architects, all in the service of private developers. The former disciplines designed the buildings, the latter parks, squares and open spaces. Housing was effectively the concern of large scale builders and engineers, who played the dominant role in the subdivision of land.

Hence no one was effectively taking a holistic approach to the design of

cities, particularly the interface between the public and private realms. A specialist discipline was needed “with skills in creating proposals for the form and management of the extended spatial and temporal (urban) environment” (Lynch, in Ferebee 1982: 105). This was the prescription for urban design. As this profession’s skills have crystallized they came to differ significantly from those of architects in the following respects: urban design

- ★ has a public focus and multiple clientele,
- ★ considers a longer time frame for realisation,
- ★ values process equally with product, recognizing that at an urban scale participation and pluralistic values-require a different strategy from that for designing individual buildings for specific paying clients.
- ★ practitioners tend to remain anonymous (Pittas, in Ferebee, 1982, p12).
- ★ is concerned with the form of large portions of, or entire, cities. (Crane, 1960, Lynch 1981, and 1976, and Wolfe and Shinn, 1970).

In relation to the planner, Lynch hints (1979) at some of the differences when he categorized urban design as

a return to that old fashioned field of physical city or land use planning, but it is simultaneously more focused and yet more amply connected to other concerns and given a sharper sense of humanistic purpose.

Taking the points in turn, urban design compared to planning is:

- ★ concerned with physical urban form, not just land use. As Wolfe and Shinn (1970: p33 and 43-44) describe it, planners have been party to the inadvertent design of cities through the use of zoning codes and traffic engineering and other standards. These have seldom been thoroughly tested for their probable impact on urban form, either functionally (with respect to shading, preservation of views, environmental comfort, compatibility of scale etc.), or symbolically (what it might mean to a community to see areas of mnemonic or historic significance, being supplanted by indifferent medium or high rise

offices or public housing).

Urban designers are specifically trained to consider such issues, and their legal implications.

- ★ geared to explore the moulding of urban form over extended as well as immediate timescales, utilizing an understanding not only of morphology but also of building typologies, and of the role the local authority can play in pacing development through the provision of the “capital web”.
- ★ is more directly influenced by environmental psychology, not only in terms of Lynch’s five basic and much misunderstood criteria for analysing public cognitive maps but also responding to the experience of street and square as outdoor rooms. (Lynch, 1960 and 1984, and Appleyard, 1980, Crane, 1960, Krier, 1979 and Rapoport, 1977).
- ★ attempts to *encourage* and *enable* change with the purpose of improving the environment, rather than merely to prevent its further deterioration, or protect existing property rights and amenity. So Hack (1980) identified the urban designer’s activities as: pulse-taking (monitoring urban trends), scheming (designing to initiate dialogue) packaging (producing programmes – what has to be done, by whom, how, and in what sequence) mediating, (managing, brokering, cajoling and persuading people to participate in realising the intentions of the design), and scrutinizing (reviewing project proposals against design guidelines). Crane writes also of the opportunities to design pacemaker projects setting new design standards to which the private sector can respond.

Compared to the planner then, the urban designer focuses more directly and exclusively on the physical urban environment as a product to be experienced – emphasizing the role of public place as a social artifact, which expresses cultural values – and directing or promoting specific short, medium and long term changes to urban form: (Lynch, in Ferebee, 1982, Bartholomew, 1979, and Wallace, 1979).

## THE EMERGENCE OF VARIOUS SCHOOLS OF URBAN DESIGN THEORY

Its comparative youthfulness and diverse origins have precluded the synthesis of a mature, broadly accepted, coherent body of theory in urban design. The opinions expressed below are therefore necessarily personal rather than broadly representative assessments.

### CITY EFFICIENT, CITY BEAUTIFUL OR CITY SOCIABLE?

These terms were coined to describe various stages in the development of planning in the USA. However they encapsulate broader tendencies touched on below.

The City Efficient, in seeking to achieve better transport, adequate waste removal or other related objectives of an engineering and public health nature, was instrumental in the reshaping of English cities in the second half of the nineteenth century. It was also reflected in Haussmann’s plans for Paris, and the imitations it spawned. It further portrays the emphasis in much of the planning executed in the USA between 1912-1950 and in the planning for the white communities in South Africa between c1940-1985, where the sole purpose appeared to be to solve transportation and associated technical questions. It responded to Lynch’s first metacriterion, efficiency, but paid scant attention to his second – justice – in terms of social and environmental questions.

Much of the legitimacy for the City Efficient derived from the writings of Le Corbusier, and his influence in CIAM, most notably through the simplistic analytical procedures and rationalist bias of the Athens Charter. (Although his designs reflect a growing poetic and intuitive emphasis relative to functional aspects).

City Beautiful: this term was originally used to describe the influence of Burnham, White and Olmsted through the Chicago Exposition (1893), and the proposals it spawned to remould American cities. It focused primarily on aesthetics and urban form; in practice it became a largely cosmetic exercise directed at restraining and concealing the restless, innovative, iconoclastic

energies of urban life, and thereby reassuring the wealthy and powerful. (Boyer, 1983).

This approach did not manifest itself in its Neoclassical, axial splendor in South Africa. Here middle and upper class white suburbs reflect rather the Garden City ideal, while our city centres were secured through legal rather than design means: exclusion of the poor, rather than beautification and material expressions of power. The latter emerged in the design of Black townships for "security" in a highly diluted, local application of Haussmanian urban design principles.

There are disturbing parallels between the polemics of Rob Krier (1979) and these City Beautiful traditions, in their cosmetic indifference to everyday reality and the plight of the poor and disadvantaged.

The latter were the concern of the City Sociable: this movement began in the 1840s in Great Britain and the 1890s in the USA: its concerns were reflected in reformer's attacks on slum conditions. The advent of large scale urban renewal in the 1960s caused a resurgence of this position when Willmott showed up the failings of British new town and neighbourhood theory and practice, and Gans led sharp social critiques on urban renewal's impact and its intellectual underpinnings in American cities.

At different times during this century, all three emphases have predominated as changing circumstances lent them credibility. It therefore remains to be seen how the current drive towards "a sustainable future" through "green" planning and design will manifest itself.

Given this background how have these changing contextual conditions affected urban design theory?

## URBAN DESIGN MODELS

There is some overlap between these historical patterns and Appleyard's (1981) proposal of three major urban design models for the first world; as shown elsewhere, (Boden, 1989), no alternatives have been specifically derived for developing countries, where urban design is almost unknown as a discipline. (1).

Appleyard's first model – the devel-

oper/growth model – is characterised by the acceptance of a desire to grow, and a focus on developers, transportation agencies or cities as clients, whose primary motive is economic development through attracting market profits, as typified by popular projects like Quincy Mall or Cape Town's Waterfront scheme. The activities involved include market analyses, scenographic development in fashionable styles and development packaging.

It is also consistent with the City Beautiful philosophy and the characteristics of pragmatism. Bacon's work in Philadelphia (1952-1970), Barnett's in New York, (1968-1974), and Eckstutt's on Battery Park City (1986 – 1989) illustrates this approach and its pre-occupation with private sector agendas (Buchanan, 1989). Jacob's and Appleyard's contributions to the San Francisco Urban Design Plan (1968 – 1974), and its extensions in the 1980s reflect Appleyard's second model – the citywide conservation-oriented approach. It occurs in a context of rapid peripheral growth around CBDs and is coloured by the perceptions of clients, who comprise conservation-oriented groups and public authorities. The motives are consequently the conservation of old areas and their character against highway construction, urban renewal, and public housing. It emphasizes citizen participation, infill and low cost improvements instead of large scale and generally disruptive development.

Appleyard's third model is described as a community-oriented approach. It is found in stagnant industrially declining areas, where low to middle income neighbourhood groups demand job creation, neighbourhood revitalization, improved livability and community development. Related projects include citizen participation, piecemeal development, and low cost housing improvements based on social environment surveys. The most widely acclaimed example is the Byker area of Newcastle, England. (Erskine and Ravetz, in Hatch, 1984).

Both the second and third models reflect City Social positions, differing only in the targeted social groups.

Finally Appleyard suggested a fourth potential rather than actual model – the ecological or "sustainable" city.

This emphasizes the efficient use of energy, minimizing the extent of air and water pollution (Spirn 1984), using passive solar energy designs and densifying cities to minimize travel distances. Mooted by both McHarg and Halprin, its antecedents lie with landscape architecture rather than planning or architecture.

Despite these differences of emphasis, there is however, one basic element of urban design procedural theory which deserves attention: the concept of design as a learning process.

## URBAN DESIGN AS A LEARNING PROCESS

Lynch (1960, 1971, 1974 and 1984) pioneered a rigorous basis for determining how people view cities and perceive the view from the road; he also examines temporal effects on the environment. This not only stimulated a new field of inquiry – environmental psychology – but forced urban designers to consider the human users of the urban environment, and to respond to their perceptions of significant elements of the environment. This approach therefore recognizes urban design as a learning process, involving a dialogue between users, other agents and designers, in much the same way as people are in continuous dialogue with their immediate environment (Rapoport 1977). This awareness of the man-environment relationship with its emphasis on public participation – in planning and urban renewal – brought about procedural changes in planning and urban design and an awareness that good solutions require thoroughly researched briefs (Perin, 1971).

Alexander's forays into computer-aided design in the early 1960s typified attempts to unravel the design process, using the computer's ability to handle complexity. However the complex nature of design problems and their intractability even when using the computer led to the abandonment of this tack and his admission of defeat (1971). Nevertheless this work stimulated a considerable body of research, the most significant result of which was the recognition that design, and by extension planning, deals with "wicked problems" (Rittel, 1967, Rittel and Webber, 1972). Basjanak (in Spillers, 1974: 14-16), drew on this to arrive at

the concept of design as a learning process, one in which designers continuously extend their grasp of the problems, clarifying and narrowing the "solution field" through repetitive interaction with the problem to be solved. Through a series of cycles the problem becomes better understood (Zeisel 1981). These cycles include *imaging* new designs or revisions, *presenting* them via drawings or models, and *testing* them against criteria, which may themselves be progressively revised. The process ends when time, money or talent to improve the result, are exhausted.

On the basis of the above one may suggest certain comparisons between these two theoretical orientations, firstly in terms of broad similarities, and secondly in terms of subtle differences.

### BROAD SIMILARITIES WICKED PROBLEM SOLVING

Rittel's (1967) concept of "wicked problems" was formulated to describe "a class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decisionmakers with conflicting values, and where the ramifications in the whole system are thoroughly confusing." Rittel began by applying this concept to design and then in collaborating with Webber extending its application to planning. Both disciplines are seen to deal with open-ended complex problems, the definition of which depends on participating interests.

The range of values, actors, and participants in the decision arena, is there-

fore critical to both disciplines, whilst the focus in planning has tended towards management, that of urban design has been on the symbolic interpretation of artifacts and decisions.

### LEARNING IN A REBOUNDED RATIONALIST CONTEXT: AUTHORITARIAN VS PARTICIPATORY MODES OF ACTION

Figure 2 categorizes various planning and urban design approaches in relation to authoritarian, competitive, transactional and anarchic characteristics, in the context of planned, planning and unplanned societies.

The public's accessibility to information, the inherent tendency to coercion, and hence the scope for participation and dialogue/learning is indicated for

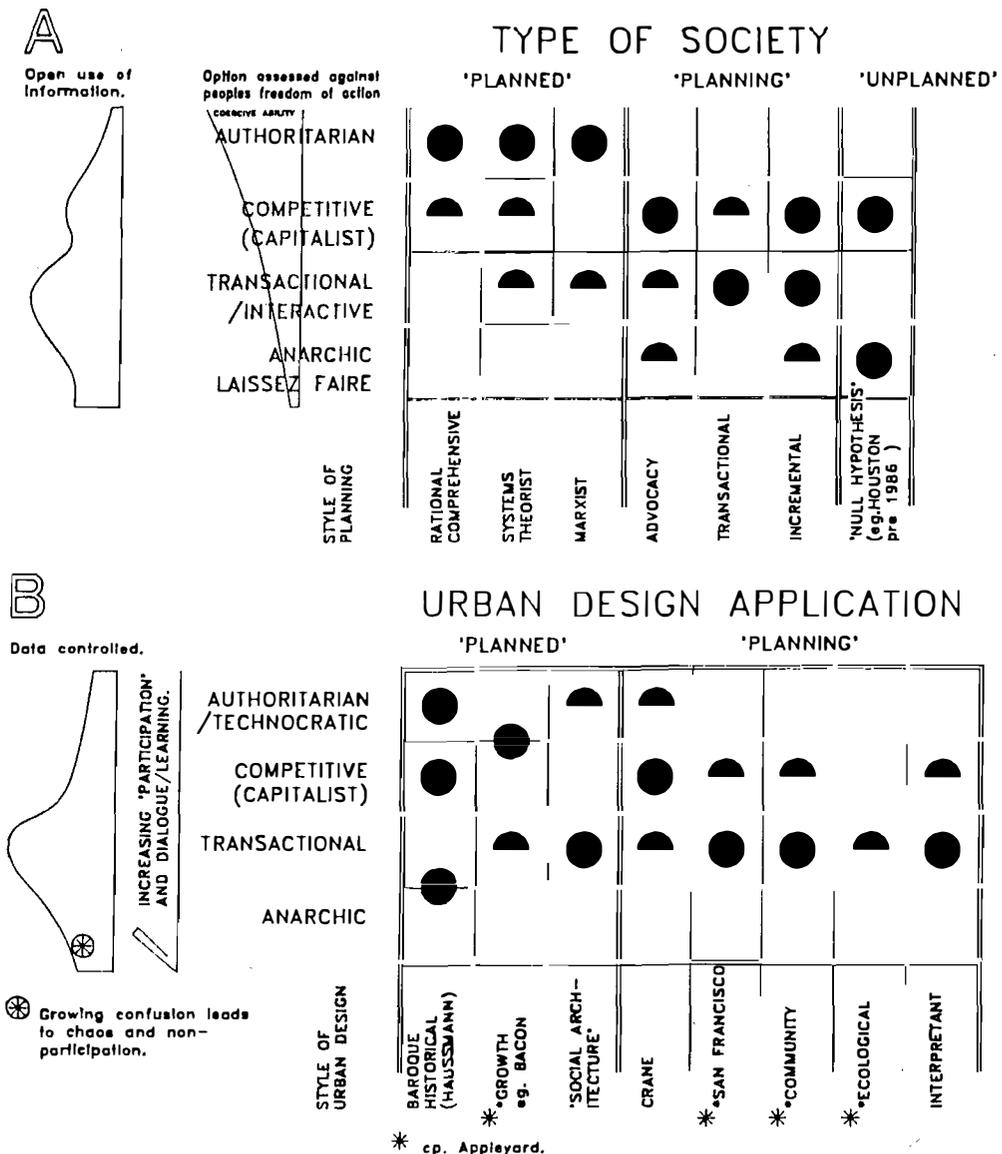


FIGURE 2:

*Authoritarian and Participatory Planning and Urban Design Modes.*

each case in the "graphs" on the left margin of the Figure.

The matrix suggests a striking similarity in the overall distribution of relationships, despite the totally different set of approaches being assessed – it is worth noting that both urban design and planning tend to be concentrated in the competitive and transactional categories. In the case of ecological urban design, symbiotic system conserving values are assumed and taken to be the dominant criteria in assessing options, so that human behaviour would be coerced into conforming with ecosystem priorities.

### SIGNIFICANCE OF PROCESS

Dewey's distinction between "planned" and "planning" societies crystallized around the planning process involved. Techniques which rely on abstracting issues and consequences, or provide extensive data as a substitute for participation, are at odds with Dewey's third axiom of democratic involvement in the learning process. Forester (1983) translated this issue into operational terms: if process changes to accommodate participation, as it must, and if complex decisionmaking involving "wicked problems" depends on negotiation, mediation and therefore protracted, messy sequences and reiterations, then both planning and urban design should have developed a basic, yet fragmented cyclical procedure.

The question appears then to be whether this fragmentary approach could be achieved without lapsing into anarchy or stalemate – "doing good" at the expense of not "being right". The more parties involved the more skills the designer/planner would require in negotiating and mediating disputes, and in group dynamics. Wolfe and Shinn, (1970: 30-43, 100, 101 and 137) in describing their Bellingham case study refer frequently to the problems of communication and consensus building which attend participation in urban design, and are similar to the difficulties planners have experienced in this regard, (e.g. Dennis, 1972, and Gans 1968). The more conflict-ridden or turbulent the decision environment, the greater the need for urban designers like planners to establish in advance a clear grasp of the major issues and options espoused by the various

parties, and of the formal implication for the city. Wolfe and Shinn's method of developing design hypotheses related to each interested party's perspective seems eminently suitable for this.

### SUBTLE DIFFERENCES

The degree of congruence may seem impressive, but in order to present the whole picture the less obvious differences need to be teased out to ensure the comparison is accurate.

### VALUES AND AIMS

Although the aims and objectives have been mentioned previously they need to be expanded on: as a vehicle for this the writings of Taylor and Williams (1982) and Appleyard and Jacobs (1980) are used. The former summarize a considerable breadth of planning experience with less developed countries (LDCs) in a particularly appropriate format. The latter's manifesto is almost contemporary with the Taylor and Williams work, and reflects the views of two widely respected practitioner-academics in the field. Appleyard and Jacobs list a range of aims which at first glance overlap extensively with Taylor and Williams's (1982) planning objectives for developing countries. Closer scrutiny however shows the urban designers display a marked focus on the physical, formgiving elements of the city and on their characteristics and placemaking capabilities, and the planners on political, economic and social concerns and their resolution through policy. This can be identified in Table 1 through the relative concentrations of points under each issue. Note here the issue of the concentration of power – whilst the planner's response is to confront this directly, as a political problem, the urban designer is more interested in the impact this has on the grain and diversity of the city fabric.

Neither mentions however that in this country as in others, planning policies are usually geared to constraining other people's behaviour (as with zoning) rather than initiating new projects by direct intervention or the creation of conditions conducive to change, as happens with urban design projects like Newton, the Waterfront, and Uytendogaardt's design for the village centre at Hout Bay.

### INADVERTENT VERSUS DELIBERATE DESIGN

Wolfe (1970) found a pronounced difference between the products in cases where a deliberate emphasis on design is evident, and those where the design comprises the inadvertent consequences of policies and strategies framed with other ends in mind. He argues convincingly for the benefits offered by the former, if they are applied by trained urban designers.

### THE INTERPRETATION OF CONTEXT

It is currently fashionable following the arguments of the Kriers, Rossi and others, to argue a contextualist position in architecture. yet there is need for a deeper understanding of what is meant by context: three divergent positions can be employed to illustrate this point. Neomarxists argue context is structural, bound to political issues of class struggles, relegating other contextual facets to a secondary position, (Fulton, 1985: 8). Environmentalists and conservatives argue that the existing natural and built context should determine permissible changes – through the degree of compatibility displayed towards existing ecology, character, scale, massing, land uses and social structures. Explicit techniques for achieving a good fit include planned unit development and impact zoning (Morphet and Boden, 1983).

Environmental psychologists hold that urban contexts must also satisfy certain criteria related to complexity (Rapoport and Kantor, 1967), order, (Smith 1974, Lynch 1976) and meaning (Rapoport, 1982) to ensure adequate stimulus and interaction between users and environment, thereby avoiding monotony, uncertainty or information overloads.

Cultural considerations impinge on all these areas. Figure 4 presents a major set of determinants in societal attitudes towards context. Boyer suggests that recent developments in America have destroyed the balance between cultural and economic forces in the city; Gesellschaft (corporate capitalist) interests have dominated those of the Gemeinschaft or community. This position is supported by Nyberg (1988).

Friedmann's (1982) response to the problem was to argue the centrality of

the connection between genuine direct democracy and an awareness of place: both in the sense of rootedness and of an identifiable "human" scale (Sale, 1981). The ideals in Friedmann's view are typified by the Greek polis, and the medieval Italian commune.

Context therefore has four basic dimensions: political, social, economic and cultural, integrated through the latter's context, but the role of context in planning is still debated between those who argue that planning is supracontextual, or even universal in its character, and those who admit specific planning applications are contextually bound; Teitz (1984:6) mentions a truce between the generic and specific perspectives, but Forester's rebounded rationality concept demands that both urban design and planning explore contextual issues more exhaustively.

### LEVEL OF ABSTRACTION

One consequence of these differences has been the more abstract character of most planning techniques and procedures relative to urban design. By its very nature design intends to produce a tangible artifact. Planning is often satisfied with a prescription about future action. Both seek to implement their proposals, yet start at opposite ends of the spectrum (Senior and Woods, 1984) and the bias assumed contains the seeds of success and disaster. There is a difference between dealing directly with people and their perceptions where they communicate their concerns directly and concretely, or even with charettes where specific place-related community-based proposals result, and the more impersonal approach favoured by many planners, (particularly in this country), in which surveys replace dialogue, observation replaces discussions, mathematical or computer simulations replace goal formulation through public debate. If the planner risks producing a poor fit between proposals and context through reliance on this indirect method, the designer runs the opposite risk, of being unable to identify generic principles.

Consequently both disciplines should strive, in our pluralistic and turbulent public decisionmaking arena, towards open-ended processes with maximum interaction between interested parties.

"Remote-controlled" predictive and analytical techniques are appropriate for evaluating different courses of action, not excluding the public.

### SKILLS

Lynch (1982: 108, in Ferebee) identified three central skills that urban designers should possess:

1. A sharp sympathetic eye for the interaction of people, places and events, and the institutions managing them. *The focus of intervention is place while the source of value is the individual and his or her experience.*
2. *A thorough grounding in the theory, techniques and values of the city i.e. urban design.*
3. An ability to communicate in written, spoken and mathematical forms, *and in graphic images.*

the underlined sections reflect the skills in which the urban designer differs from most planners. With respect to communication skills most planners are insufficiently trained in the use of graphics, while designers are often weak in verbal and written skills and both are perhaps deficient in mathematics.

### GENERAL IMPLICATIONS

Perhaps it is correct that the two disciplines should have different emphases, but accepting this implies a need to recognize their potential complementarity. However, this has not generally been accepted or practiced until now in the Republic. With very few exceptions – such as the LUTS plan for Johannesburg – the need for such a combined approach is perhaps most evident in the functionalist-rational attitudes in planning as compared to the wider ranging cultural dimension of urban design – in particular the latter's emphasis on the significance of the symbolic, experiential and poetic features of urban morphology. This "merging" of the disciplines has growing significance for the multi-cultural "new" South Africa. However as illustrated in disputes over the environmental quality achieved in redeveloped parts of Sandton, a d rezonings in Houghton, Johannesburg, our planning systems still favour functional/rational concerns over emotive and poetic issues, and "factual" evidence, (i.e. economic or legal

issues) to community interpretations, reflecting a bias towards business interests common in capitalist societies (Kirk, 1980).

To achieve a symbiotic relationship, both the common and the unique qualities of each discipline must be recognized. The areas of overlap can generate a better mutual understanding of each profession's role and aims. Better communication should also reduce misunderstandings and resultant animosities, and broaden the perspectives and insights available in addressing problems. A thorough grasp of their intertwined history should prevent the duplication of past errors and create opportunities for future innovation.

Procedural theorists in both fields have arrived at similar conclusions: the wicked problems they face may not be identified in the same way, or receive the same prioritization, but they are characterized by similar complexity, ambiguity, uncertainty and intractability. Hence the significance for both disciplines of Hoch's arguments in support of his theory, i.e. that most planning (and as shown in Figure 2) urban design processes fall within Dewey's pragmatic paradigm and that planners or urban designers committed to a "planning" rather than a "planned" society should begin by accepting an open democratic decisionmaking environment. Both disciplines should embrace Forester's structures for planning in bounded circumstances and De Neufville's argument for a closer bond between theory and practice – itself a truly pragmatic notion.

It is also possible in examining the differences to identify which planning approach is most appropriate and compatible for a specific urban design situation, and vice-versa (Figure 3). Furthermore the "inadvertent" nature of much planning-initiated design justifies the use of urban design consultants to tease out these unforeseen consequences and to generate better environmental answers without jeopardizing other planning concerns. It also suggests the importance of introducing a design dimension into problem analysis and policy formulation at the earliest possible stage of the planning process. This issue is particularly relevant for less developed countries:

FIGURE 3: Comparison of Planning and Urban Design Problems and Criteria.

URBAN PLANNING	URBAN DESIGN	COMMENT
<b>PROBLEMS/ISSUES</b> <small>(SOURCE: TAYLOR &amp; WILLIAMS)                      (SOURCE: APPELYARD &amp; JACOBS U.D. MANIFESTO)</small>		
<b>1. DEMOGRAPHIC:</b> - changes in population - age composition	<b>1. Privatisation leads to private affluence and public squalor.</b>	Planning is relatively comprehensive in covering these fields but urban design focusses only on those aspects most likely to affect urban form. eg. How the concentration of power this century has brought about larger developments with inhuman scale of development.
<b>2. ECONOMIC:</b> - poverty, unemployment, dualism, (formal/informal economy). - financial plight of urban governments. - overconcentration in primary centre.	<b>2. Giantism: loss of control. closed off, defended precincts.</b>	
<b>3. POLITICAL:</b> - power concentrated in hands of wealthy elite. - top-down decision-making. - polarization of urban: rural populations.	<b>3. Injustice.</b>	
<b>4. SOCIAL:</b> - family and traditional values. - crime and social pathologies. - health services. - educational services, relevance.	<b>4. Loss of individuality: loss of cross class/income interaction.</b>	Urban design focusses on spatial expressions of social concerns.
<b>5. ENVIRONMENTAL:</b> - use and ownership of land. - insufficient serviced land. <b>(TRANSPORTATION):</b> - mixed land use pattern. - fine grain. - poor quality housing <i>stock</i> . - adequacy of public transport. - traffic mixture.	<b>5. Diversity spontaneity and surprise</b> - urbanity - poor living environs: pollution, noise, unsafe environs. - impersonal large scale projects. - centrifugal fragmentation. - destruction of valued places. - sense of placelessness.	Both list the same number of concerns under this heading but less than half have a similar emphasis.
<b>6. TECHNOLOGICAL:</b> - civil engineering - transportation: public & private* - health: water, wastes and stormwater. - management of services.	<b>6. Rootless 'professionalism' - the international consultant with no local commitment. - need for participation.</b>	* These concerns would figure prominently with urban design in LDC's but Appleyard & Jacobs were writing for the first world only.
<b>7. PROCESS:</b> - budget based incrementalist style of planning in most LDC's. - non physical policy oriented. - economic bias. - formal not informal bias. - clearer goals and objectives. - better management systems. - technocratic rather than socio-cratic bias.	<b>7. Not specifically discussed.</b>	Similar concerns about the need to involve people, (see 3 and 4) but not about the areas in which this should occur - socio political and economic often seen as an end in themselves in planning.

FIGURE 3 Continued.

**CRITERIA**

<p>'Spiritual' criteria include security, identity, equity, respect, choice, participation</p> <ol style="list-style-type: none"> <li>1. <i>Planning values</i> must be responsive.</li> <li>2. <i>Security</i>: Physical (safety) economic (employment) legal (non-capricious) + social (design for community).</li> <li>3. <i>Consistency</i> between objectives, policies and programmes.</li> <li>4. <i>Respect</i> for people's psychological identity and self respect; respect in managerial areas.</li> <li>5. <i>Identity</i>: respect social, religious and ethnic identities. Respect for 'core' values of communities.</li> <li>6. <i>Equity</i> Economic: able to share in goods. Social: equal access to resources. Legal: equal access to legal machinery and rights. Managerial: access channels of communication to leaders.</li> <li>7. <i>Choice</i>: choice of jobs choice about location choice of association choice whether to be politically active.</li> <li>8. <i>Participation</i> Economic freedom to run businesses as they wish. Social freedom – does plg. process strengthen people's involvement. Managerial – does plg process encourage pp to become involved in the design, execution and maintenance of projects/ programmes. Legal: can plg proposals be modified or changed.</li> </ol>	<ol style="list-style-type: none"> <li>1. Liveability: sanctuary of family-rearing cycle: resting, recovery, privacy free of hazards.</li> <li>2. Balance between individual and collective needs.</li> <li>3. Authenticity and meaning: reveal time origins and purposes.</li> <li>4. Self reliance and justice: good environment for all.</li> <li>5. Identity and control – area belongs to residents/ owners.</li> <li>6. Access to opportunity/imagination and joy.</li> <li>7. Choice of next experiences; alternatives. – openness to communities, and public life. – committed to neighbourhood and the city.</li> <li>8. Process is vital: multiple small inputs rather few large ones.</li> </ol> <p><b>ESSENTIAL PHYSICAL QUALITIES</b></p> <ol style="list-style-type: none"> <li>1. Liveable streets and neighbourhoods.</li> <li>2. Minimum residential densities: 75-150pp/ha</li> <li>3. Intense concentration of land uses.</li> <li>4. Integration of different activities.</li> <li>5. Man-made environs define public spaces.</li> <li>6. Many buildings in complex, fine grain matrix.</li> </ol>	<p>Not possible through standards alone. Zoning usually works against all three of these.</p>
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as our cities experience the effects of urbanization, and the intensification of development within the older inner suburbs, so the importance of these design skills becomes evident, if we are to avoid the low quality environs one sees in parts of Hillbrow, or south of Marabastadt in Pretoria. The problem of housing urbanising squatters is not simply quantitative in nature: the patterns and quality of built environs they establish will, as history shows, constrain the future form of our settlements: sensitive design frameworks are therefore essential if resources and the human spirits that will be formed in these contexts are not to be abused and

deformed.

### EDUCATIONAL IMPLICATIONS

Three principles should apply here: first find ways of incorporating the learning, dialogue paradigm of planning and design into both programmes. Secondly, identify the commonalities in their values, procedures and basic substantive elements, and combine these, into programmes which will encourage both disciplines to work together. Thirdly ensure that those aspects which differ are recognized and taught as such. Postgraduate programmes should allow those who are capable of developing skills in both areas

to do so. The Masters degree in Urban Design has accordingly been taught to architectural and suitably qualified planning graduates at the University of the Witwatersrand since 1976.

### CONCLUSION

Clarifying the relationship between urban design and planning is of more than theoretical interest. It is fundamental to identifying policy, procedural and educational changes required to improve on the dubious past performance of planning (Dewar et al, 1978) in influencing the quality of the built environment, both generally and specifically in this country.

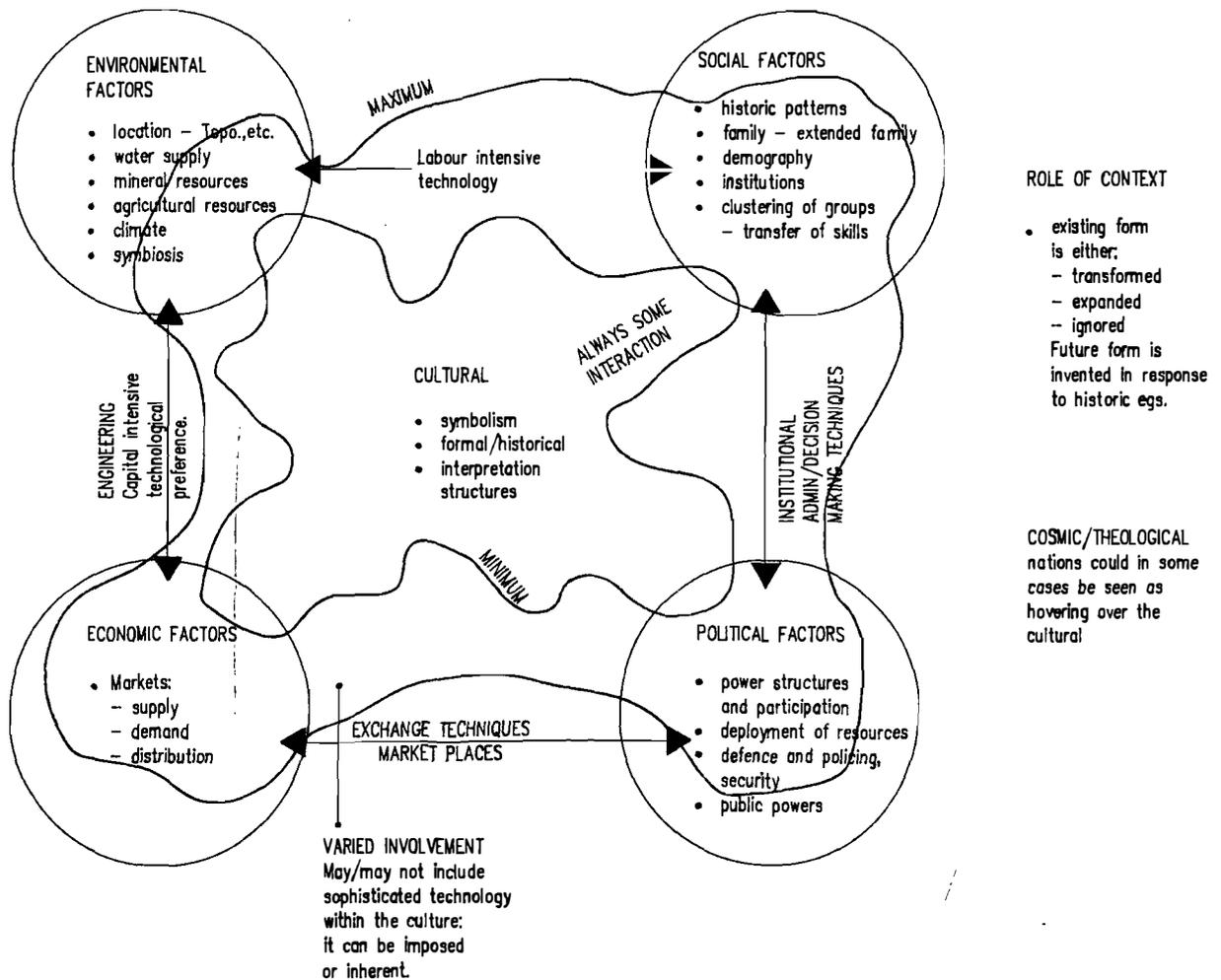


FIGURE 4: City Form Determinants. Intrinsic processes of change and growth in relation to culture.

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