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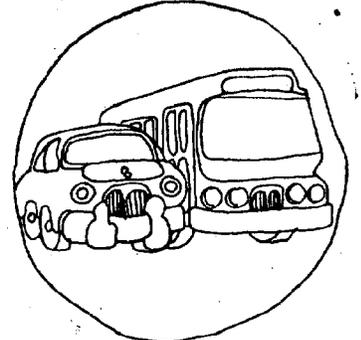
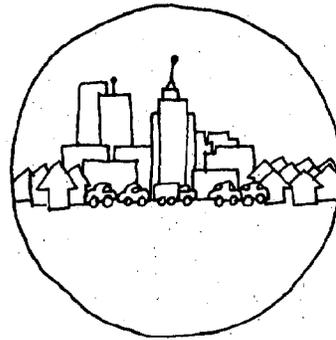
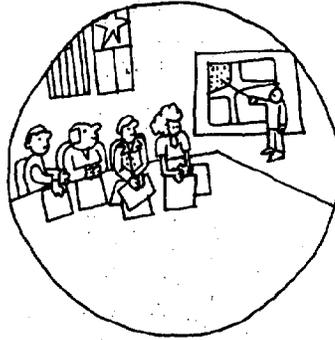
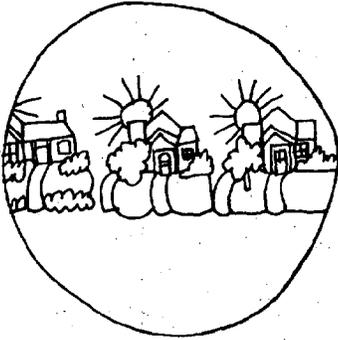
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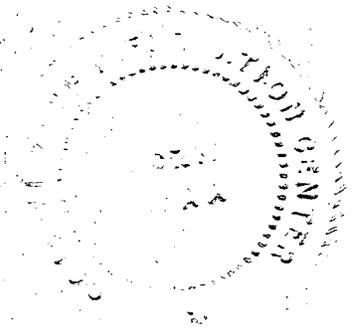
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THE ROLE OF URBAN DESIGN IN LOCAL GOVERNMENT

**COASTAL ZONE
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Principal Investigator

Weiming Lu
Department of Urban Planning
City of Dallas

September, 1976

This study is supported by the National Science Foundation and administered through Goals for Dallas. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the principal investigator and conference participants and do not necessarily reflect the views of the National Science Foundation, Goals for Dallas, or the City of Dallas Department of Urban Planning.

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ABSTRACT

The Dallas Conference on the Role of Urban Design in Local Government stressed the viability and increasing importance of urban environmental design in solving the problems of our cities. Local governments do need research to help them improve the design and management of their urban environments. As the primary users of research findings, such governments should also play a key role in defining research needs and carrying out the research itself.

Much remains to be done before cities avail themselves fully of the potential benefits of improved urban design. There is insufficient understanding at all levels of government of the role that urban design can play. Support from Federal, state and local governments is inadequate.

The conference outlined three categories of urban design legislation, in addition to performance standards and environmental impact statements; four types of mechanisms for implementing urban design in local government; seven major deficiencies in urban design research today; three tentative models for describing the urban design field; and three alternative approaches to urban design research. Research needs were suggested in the areas of design administration, design legislation, design issues, and communication and education.

To be useful, urban environmental design research must take a holistic approach, continuing in one place over long periods of time; being carried out as an integral part of projects' organization, implementation, and evaluation; and being done by those who are part of the project being studied. There is also a great need to improve dissemination of research findings.

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PREFACE

Urban environmental design may be defined as an attempt to intervene or otherwise influence the processes of political and economic decision-making in the development of cities, for the purpose of protecting, enhancing, or in some other way improving the quality of the environment. In an era of environmental crisis and political immobility, urban environmental design stands as one of the few beacons of hope that realistic, constructive solutions may be found to the desperate problems facing our communities.

The Dallas Conference on the Role of Urban Design in Local Government, held June 25-27, 1976, demonstrated convincingly that urban environmental design does exist and in fact is in a stage of rapid, vibrant growth. Increasing numbers of American cities and citizens are recognizing the extraordinary potential of urban design to improve the quality of life in urban areas—by protecting the natural environment, preserving historical and cultural heritage, enhancing community and neighborhood sense of identity, conserving energy, making streets and highways safer and more attractive.

But while increasing recognition of urban design's value presents a rare opportunity to utilize skills and knowledge already developed, the Dallas conference attests to the crying need for more and better research in a number of areas. It is critical to understand that, in both research and implementation of urban design, local government must be the focus of effective programming. In a city often 50 percent of the land is publicly owned, and private development is subject to public control and influence. In the aggregate, physical development is the major permanent investment we make as taxpayers. But few cities have the structure to manage this investment to insure that it actually improves the quality of urban life. This management concern becomes crucial as the nation enters a time when resources of all types are in short supply: how can optimum value from both public and private investment be secured? Only local government, through competent urban design programs, can answer the question. And much additional research is needed to help it do so.

The Dallas Conference on the Role of Urban Design in Local Government defined urban environmental design broadly, to encompass all aspects of the human environment—natural and man-made. Accordingly, conference sessions were broad in scope. Through a survey of selected topics and design programs in several cities, design methodologies and implementation devices were reviewed. Fuller consideration, however, was given to the legislative frameworks and administrative mechanisms needed for effective urban design programs.

The conference deliberately was kept small to insure an efficient working group. Participants were selected on the basis of their vital roles in shaping the urban environment in America today. Hence the participants represented users of environmental design research findings and sources of potential research programs. Attending the conference were 15 invited participants; three guests, including two from Europe; one National Science Foundation observer; and two project monitors. The participants, from a wide geographical area, included urban designers, planning directors, design administrators, educators, researchers, development executives, and representatives of public interest bodies.

The participants met from early morning till late at night. Many, however, still felt that with the broadening scope of urban design, the conference was too short to cover all concerns adequately. There was no time to debate or discuss most statements in depth. In the comments and papers presented at the conference there were many gaps; in several cases, ideas of great importance were not developed fully.

Because participants, with few exceptions, were professionals who have worked in the field for a number of years, the conference was characterized by a refreshingly realistic exchange of experiences. A certain sophistication, as opposed to the blind idealism or fatalism often encountered at such meetings, prevailed. There was a distinct recognition that America, in reality and perception, is moving away from an era of resource abundance. A lively diversity of viewpoints informed the conference discussion. Many hoped the dialogue started at Dallas among participants of highly diverse backgrounds and viewpoints could be continued at least annually.

This conference never could have taken place without the generous assistance of numerous individuals. Particular thanks go to Andrew Euston and Kevin Lynch, project managers, who assisted in the development of the conference theme, program, and participants list. James M. Schroeder, Director of Planning, City of Dallas, supported the organization of the conference and preparation of this report in various important ways.

The sympathetic support and understanding of the National Science Foundation is deeply appreciated, and particularly that of Dr. Charles C. Thiel, Director, Division of Advanced Environmental Research and Technology; and Dr. James D. Cowhig, Director, Division of Advanced Productivity and Research Technology. A great deal of credit goes to Prof. Henry Lagorio, Program Manager, Division of Advanced Environmental Research and Technology, for his understanding of the important setting local government provides for conducting as well as utilizing environmental design research and of the great benefits to be derived from asking local governments to be involved directly in defining research needs in this area. It was due to Prof. Lagorio's initiative that the unprecedented format and organization of the Dallas conference was developed.

Mavis Bryant, editorial assistant on this project, contributed long hours and numerous helpful suggestions in the course of preparing this report. The staff of Goals for Dallas—particularly Dr. Bryghte D. Godbold, director, and Norma Mecaskey, conference arrangements coordinator—and Raymond Stanland, City of Dallas Department of Urban Planning, deserve special thanks for their substantial contributions to making the conference a success.

All the conference participants contributed invaluable insights which are presented throughout this report. Special acknowledgment should be made of the contributions of Norman Marcus on approaches to design legislation; Andrew Euston on administrative mechanisms; Steve Carr on "People Make Environment"; Kevin Lynch on "Sensory Quality of the Physical Environment"; Steve Carr, Gary Hack, and Kevin Lynch on research strategies; and Bryghte Godbold on public involvement and education. The principal investigator contributed the section on "Product-Process-Discipline."

Findings and recommendations embodied in this report can only be tentative. In preparing this publication, it has been difficult to create a coherent framework for all the ideas suggested. Given the limited time available for preparation, this document simply represents an attempt to summarize in a readable format the significant concerns and insights voiced in three days of meetings. While it would be unrealistic to expect every conferee to agree on every part of this report, it is clear from comments on the preliminary draft that most participants support the research recommendations presented here.

Copies of the preliminary draft were sent to each conference participant for review. Steve Carr, Andrew Euston, John Kriken, Kevin Lynch, Norman Marcus, Herb Stevens, Bob Stipe, and Ron

Straka, as well as my associates Raymond Stanland and Marvin Krout, helpfully reviewed the draft. Every effort has been made to incorporate their suggestions into the final report.

There were, however, a number of areas which were not fully covered in the conference. In some such cases, the principal investigator has assumed responsibility for adding material when necessary and appropriate. Therefore it should be understood that he is primarily responsible for the contents of this publication. Opinions, findings, and recommendations are those of the principal investigator and conference participants and do not necessarily reflect the views of the National Science Foundation, Goals for Dallas, or the City of Dallas Department of Urban Planning.

Weiming Lu
Principal Investigator

CONFERENCE PARTICIPANTS

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Andrew Euston, Jr., Urban Design Program Officer, United States Department of Housing and Urban Development

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Gary Hack, Program Coordinator, Canadian Mortgage Housing Corporation, Canada

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John Kriken, Director, Urban Design and Planning, Skidmore, Owings & Merrill, San Francisco, California

Norman Marcus, Counsel, New York City Planning Commission

Paul Muldawer, Muldawer & Patterson, Atlanta, Georgia

Robert Moffitt, Director of Planning, City of Minneapolis, Minnesota

Herbert Stevens, Director of Planning, City of Cincinnati, Ohio

Robert Stipe, Lecturer, North Carolina State University, and Trustee, National Trust for Historic Preservation

Ron Straka, Architect, Boulder, Colorado, and Chairman, Urban Planning and Design Committee, American Institute of Architects

Margo Wellington, Executive Director, New York City Municipal Arts Society

SPECIAL GUESTS:

Gösta Blucker, Head, Urban Design Section, National Board of Physical Planning & Building
Government of Sweden

P.G. Meijer, Director, National Physical Planning Agency, The Hague, Netherlands

Bryghte D. Godbold, Executive Director, Goals for Dallas, Dallas, Texas

NATIONAL SCIENCE FOUNDATION PROGRAM MANAGER:

Henry Lagorio, Washington, D.C.

PROJECT MONITORS:

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Donald Williams, Director, Rice Center for Community Design & Research, Houston, Texas

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GRAPHIC DESIGNER:

Janet McCaffrey

1976 ENVIRONMENTAL DESIGN CONFERENCES

SPONSORED BY THE NATIONAL SCIENCE FOUNDATION

The Dallas Conference on the Role of Urban Design in Local Government was one of five environmental design conferences supported by the National Science Foundation in 1976. A final report for each conference has been prepared. In addition, the Rice Center for Community Design and Research has produced a summary report on all five conferences. The themes, principal investigators, and their addresses are listed below.

"Environmental Continuity"

June 1-3, 1976

Richard Ludwig, Principal Investigator
College of Architecture and Urban Planning
University of Washington
Seattle, Washington 98195

"City Centers in Transition"

June 6-8, 1976

Shirley Weiss, Principal Investigator
Center for Urban and Regional Studies
The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina 27514

"Environmental Design Conference: The Practicing Architect and Societal Needs"

June 9-11, 1976

Sarah Harkness, Principal Investigator
The Architects Collaborative, Inc.
46 Brattle Street
Cambridge, Massachusetts 02138

"The Uses of Socio-Scientific Technology in Environmental Design"

June 18-19, 1976

Robert B. Bechtel, Principal Investigator
University of Kansas
Lawrence, Kansas 66044

"Role of Urban Design in Local Government"

June 25-27, 1976

Weiming Lu, Principal Investigator
Planning and Urban Development
500 South Ervay Street
Dallas, Texas 75201

"Summary Report: 5 Regional Environmental Design Conferences"

July 1976

Donald L. Williams, Principal Investigator
Rice Center for Community Design + Research
1929 Allen Parkway, Suite 400
Houston, Texas 77019

EXECUTIVE SUMMARY

The Dallas Conference on the Role of Urban Design in Local Government made it clear that urban design practice is maturing rapidly and becoming broader and more effective. To continue this development, research is badly needed in a number of areas. Such research must focus on the needs of local government as the key agent of urban design implementation; local government, too, must take a leading role in carrying out urban design research. The importance of the public sector in achieving high quality urban design may be understood by considering that often half of the land in a city is publicly owned, and private development is subject to public influence and control.

Though the importance and effectiveness of urban design is certainly increasing, much remains to be done before cities avail themselves fully of the potential benefits of improved urban design. At all levels of government there is insufficient understanding of the role that urban design can play. Urban design efforts do not receive adequate fiscal support from Federal, state and local government agencies. At the local level, while more city governments are paying attention to urban design, the mechanisms for its functioning remain poorly defined and supported.

Fostering an urban design movement in America in the years ahead will depend on meaningful citizen involvement in the urban design process and on adequate urban design implementation mechanisms in local government. As long as there is a context in which urban design programs can take root, there will always be opportunity to improve design methodology.

With regard to implementation, three major elements are of critical importance. First is the public's attitude toward and participation in the design process. Designers and "consumers" of urban design must be equal partners here, for each has much to teach the other in the process of achieving a better environment in which to live and work. At least two levels of public participation are required in the implementation of urban design, broad-based general goal-setting efforts for a city as a whole, and participation by specific interest groups affected by particular design issues or projects. In addition, the public's understanding of design issues can be strengthened by exposing it to examples of good urban design, by meaningful public debate, and by improved post-construction evaluation of projects.

A second critical element is the legal framework within which urban design must be implemented. Certain basic legal powers are essential to the successful implementation of design, and certain techniques can be useful in fostering that success. Relevant legislation can be classed in three categories of "as-of-right" administration, elective design review, and mandatory design review. In addition to these three types of legislative techniques, performance standards and Federally mandated environmental impact statements are also among the basic repertoire of tools of this type. As-of-right ordinances are most used in this country and are valued for their brevity and uniform applicability. Their inflexibility and permissiveness have led to increased use of the incentives available under elective design review's varied forms— incentive zoning, development rights transfer, special districting, restrictive covenants, planned unit development, and growth management schemes. Stronger yet are the directives of mandatory design review, usually used in districts established to protect critical resources.

Development control ordinances written in the form of performance standards rather than specification standards offer important advantages over traditional methods. While more complex, they can be changed more easily in accord with changing needs. They help predict more accurately the effects of development and are more flexible. It may be possible to reduce the high administrative costs usually associated with performance standards by developing prototype situations, use of performance-based standards, use of paraprofessionals, and more accurate measurement of the indirect costs associated with other types of development.

Environmental impact statements required by Federal law for key projects have potential to help achieve a better designed urban environment. The fact that these statements have not been used with regard to the built environment except in a few cases, and numerous administrative problems, render them less effective as a tool than they might be.

A third crucial element is the structure, or mechanism, by which urban design is implemented in local government. The conference outlined four models of such mechanisms: the ad hoc problem-focused concept, the multi-agency dispersal concept, the key or lead agency concept, and the ombudsman concept. Common characteristics of effective mechanisms of all types are: (1) the design office has direct lines of communication with key decision-makers; (2) urban design office has mandatory referrals and design review powers; (3) continuing communication with the varied business and public interest groups in the city; (4) adequate budget, competent staff, and effective management organization; and (5) multi-disciplinary staff in house, complemented by selective use of consultants. The four models need to be studied carefully to determine (1) to what degree each corresponds to reality; (2) how actual practice under each model varies from city to city; and (3) how each model may be used best to provide leadership or impetus for improved design and management of the urban environment.

Certain characteristics, conferees agreed, distinguish useful urban design research from that in other fields. First, urban design is an explicitly normative field, concerned with creating new possibilities rather than dealing primarily with what is already in existence. Too, it deals with human beings and with scarce, irreplaceable resources. Thus, useful research in the field must (1) be carried out as an integral part of a project's organization, implementation, and evaluation; (2) continue in one place over long periods of time, to allow for successive modifications based on results of research; (3) be designed so that failures can be rescued when they occur; (4) be carried out by those who are part of the project being studied; and (5) attempt to incorporate methods of disseminating the results to professionals most likely to use them.

Several major blocks exist to effective utilization of urban design research. First, much of the research done is irrelevant to the problems and priorities of urban designers practicing in the real world. Second, useful research findings are not readily available to practicing urban designers. Third, useful research findings are not being employed effectively, if at all, by local governments. Fourth, though local governments often have a wealth of researchable information, this information is not utilized. Fifth, research need not be carried out only by universities and research institutions; local governments under certain conditions can also initiate, sponsor, and/or conduct innovative research. Sixth, case studies are needed to document success and failure in urban design. Seventh, many individual research projects are carried out with an inadequate frame of reference, resulting in many results which are not cumulative or comparable and so do not add up to coherent wholes useful to designers in their work.

To help in developing the needed frame of reference to describe the urban design process and field, three tentative models were offered— "People Make Environment," "Sensory Quality of the Physical Environment," and "Product-Process-Discipline." These three models offer different ways of looking at the subject matter for urban design research.

Three alternative approaches to urban design research were outlined—(1) contextual, (2) "trickle-up," and (3) post-construction. All serve important needs, and the three are not mutually exclusive. Contextual research is that which is an ongoing case study conceived and carried out as an integral part of the design-decision-implementation-management of a project. "Trickle-up" research begins with a very small problem or focus and works out from that toward

larger issues and contexts. Post-construction research is evaluative in nature and focuses on the successes or failures of a given project, and the causes of these results.

Specific research topics were suggested under the headings of design administration, design legislation, design issues, and communication and education, in order of importance. Higher priority should be given to research on design process than on design product.

Design administration research needs focus on evaluation of various urban design mechanisms in local government, management of the design process, impact of public investment in infrastructure, use of paraprofessionals, effectiveness of urban design assistance programs, and the development of innovative settings.

In design legislation, suggested research topics included the side effects of ordinary codes and regulations; costs and benefits of development control measures such as incentive zoning; use of performance standards in design legislation; costs and effectiveness of various design review techniques; development and effectiveness of various design criteria; and the EIS process or alternatives to it.

With regard to design issues, problems cited included measuring direct and hidden costs of developments; environmental management techniques; rehabilitation of older suburban areas; influence of energy use on design; appropriate environmental modification scale; users' experience of various environments; impact of density on environmental users; mixing of residential and commercial uses, and of socio-economic groups, in a given environment; and study of recurring patterns of settlement.

Areas suggested for study in connection with communication and education included ways of using the environment for learning; simple, low-cost simulation and prediction techniques; motivations of decision-makers; use of volunteers; use of local craftsmen; ways to convert environmental "consumers" into "producers"; ways to use university resources to enhance the community's design programs; and mid-career training for design professionals.

The conference also drafted a list of additional legislative and governmental needs on the Federal, state and local government levels. These recommendations stressed that the Tenth Amendment, which reserves to the states powers not explicitly granted to the Federal government by the Constitution, should be preserved. The Federal government should set very basic urban design guidelines and policies, but leave development of specific standards and enforcement to the state and local governments.

Within Federal government, needs include better coordination among agencies, greater leadership on the part of professional organizations and Federal employees, and categorical grant programs involving urban design and historic preservation.

State government needs include setting examples in state-funded projects; appropriations and incentives for local urban design projects; state override on crucial local government decisions; enabling legislation for local design review; support for state arts councils; and stronger role for state-employed design professionals.

On the local government level, cited needs were for required urban design plans and guidelines in local development plans; careful balance of design goals and concern for due process in design review; effective administrative mechanisms for urban design; urban design considerations integrated into city budgets and capital improvements programs; and effective citizen involvement in the design process.

URBAN DESIGN IN LOCAL GOVERNMENT



I. INTRODUCTION

The Dallas Environmental Design Conference recognized that fostering an urban design movement in America in the years ahead will depend to a large extent on meaningful citizen involvement in the urban design process, and on effective urban design implementation mechanisms in local government. As long as there is a setting in which urban design programs may take root, there is always opportunity over a period of time to improve design methodology. Thus implementation mechanisms are more fundamental than design methodology, and conference discussion gravitated toward such mechanisms, though there was also much discussion of design methodology.

With regard to implementation, three major elements are of critical importance. First is the public's attitude toward and participation in the design process. This public involvement forms the context in which urban design must be implemented. Designers and the "consumers" or "users" of urban design must be equal partners here, for each has a great deal to teach the other in the process of achieving a better environment in which to live and work.

A second critical element is the legal framework within which urban design must be implemented. Certain basic legal powers are essential to the successful implementation of urban design, and certain techniques can be used to further that success.

A third element is the structure, or mechanism, by which urban design is implemented in local government. The organization of the delivery of design services in a community, the relationship of a design office to other parts of city government, and the requirements for effective functioning within a government framework all received considerable attention at the conference.

II. CITIZEN INVOLVEMENT

A. BASIC CONSIDERATIONS

Perhaps the single most important element in a successful urban design program in local government is effective public involvement in the urban design process. Public attitudes form the context within which design must be implemented, and so these attitudes have a profound influence on the environmental quality a city develops. In addition, it is the public, or "consumers" of urban design, who often have the most to teach designers about specific environmental problems or situations. Those actually involved in the situation often have the most detailed information and the most useful ideas for improvements.

What is meant by the term "public" may vary under different conditions. But at least two levels of participation by people outside government are essential to overall success of a public design program. First is broad participation by all elements of the community in a general goal-setting endeavor. The purpose of such an effort is to create a sense of community and overall direction for a city as a whole—the generally receptive context in which effective urban design can go forward. It is important that such an effort integrate, among others, leaders of community institutions such as city and county governments, school systems, chamber of commerce, health organizations, and so on. One example, among others, of this type of general citizen involvement program is Goals for Dallas, which, over the ten years of its existence, has continuously involved a wide cross-section of citizens in discussion of issues and options facing the city. As the city has increased its awareness of its problems and potential, the people as a whole have begun to strive for higher goals, including a better designed city. Much has been accomplished by the city government and the community toward the realization of these goals. A broad-based structure for continuous goal-setting activities can also function to identify problems as they arise and deal with them before they become critical.

A second level of participation is that of specific interest groups involved in an issue or problem facing the city at a given time. The designer may serve to bring these groups together and help them arrive at workable solutions. Some conference participants felt, in fact, that success in urban design is almost always "a function of establishing and narrowing involvement to a level where people have a direct stake in the urban design outcome." They maintained that "Urban designers must take little steps—achievable projects related to the interest group they serve."

A central role of the urban designer is to structure the means by which mutual education between design professionals and the public, on both levels, can take place. This task involves broad efforts on several fronts.

Too often the public has little understanding of urban design's potential for improving the quality of urban life and little opportunity to develop sensitivity and a positive but critical attitude toward design considerations. All too often urban designers and planners themselves fail to articulate publicly the implications of design issues facing a city. News media do not cover such issues adequately, and little meaningful debate takes place regarding them. Completed projects are seldom evaluated systematically. A project may enhance or detract from the quality of users' experiences, but few of the public will ever know or care. Broad citizen participation in urban design decision-making processes can, among other effects, sensitize people to the potential of effective design, and at the same time sensitize planners to the needs and aspirations of the public.

Direct experience of a better designed environment can help the public appreciate the need for good design. A city government can achieve better design quality through such means as employing better designers; sensitive use of competitions and design commissions; creative use of the design review process; utilizing many types of communication devices; and providing design services.

Meaningful public debate on design issues also increases public awareness of the need for better urban design. In San Francisco, the great public debate a few years ago on the protection of scenic views made citizens much more aware of the need for, and means of, protecting the beauty of their city. The long controversy three years ago over Dallas' sign ordinance made the public there more conscious of visual clutter and the need to control it. In Minneapolis, extensive press treatment of the impact of the city's first "skyways" (second level pedestrian walkways) over Nicollet Mall increased public awareness of the urban design issues involved.

Urban designers, by structuring appropriate public participation processes, can help segments of the public articulate their ideas and desires with regard to specific and general issues, and give them the tools to shape or influence public policy. The use of techniques such as simulation, discussion, and others can give people a sense that something can be done and, by extension, give urban designers a mandate for change.

B. RESEARCHABLE ISSUES

While there is considerable literature on citizen involvement and community planning, specific materials on citizen involvement and sensitive urban design issues are still lacking. Much research is still needed in the latter area. Research in the area of citizen involvement in urban design usefully might focus on such questions as:

1. Where could training for citizen involvement in urban design issues most effectively be located? In educational institutions? public interest organizations? city governments? or a combination of these?
2. What methods can be used to release and integrate the creative energies of different groups of environmental "consumers" and to convert them into "producers"? Such research might draw on the knowledge of such fields as Gestalt therapy, art education and creative writing.
3. How can environmental information be communicated simply, easily, and at low cost among professionals and citizens? New simple, inexpensive yet effective techniques of simulation and prediction are needed.
4. What are the ingredients (leadership, organization, process, budget, etc.) for successful broad-scale citizen involvement programs in major American cities? Under what circumstances has broad-scale citizen participation in urban design been successful? unsuccessful? Why?
5. Are community decisions resulting from broad-scale citizen involvement programs more likely to be carried out successfully than those made through the "normal" political process?
6. Do environments designed with citizen involvement satisfy their users more than others? What types of variations exist for different types of involvement, environments, conditions?

7. What effects does citizen involvement have on the attitudes, values, and actions of designers and planners over varying periods of time?

8. What is the role social scientists can play in increasing understanding and effectiveness of the citizen involvement process at various levels?

III. URBAN DESIGN LEGISLATION

Legislation is the means by which urban design is officially implemented in a city. Such legislation can be discussed under the three categories as "as-of-right" administration, elective design review, and mandatory design review. In addition to these three categories of legislative techniques, performance standards and Federally mandated environmental impact statements received special attention at the conference because of their potential for improving the quality of the urban environment.

A. THREE APPROACHES TO LEGISLATIVE URBAN DESIGN

The types of legislative approaches to urban design available in today's municipal government may be classified under the general headings of "as-of-right" administration, "elective design review," and "mandatory design review." Prior to discussing these techniques in more detail, it is important to note several factors.

First, perhaps the most important **caveat** to be observed is the law in the particular state under consideration. Police power enabling statutes and case law within each state must be reviewed. It is dangerous to generalize loosely about nationally permissible techniques.

A second variable is the existing local administrative apparatus which processes development applications. Whether to insert an urban design office in an administrative mechanism will naturally depend on the existing allocation of development review responsibilities in the locality.

A review of the effectiveness of local zoning administration should, therefore, precede any specific urban design recommendations. Successful efforts have also been made in recent years to increase the effectiveness of the design legislation without adding great administrative burdens, by simplifying the review process and making the review criteria more specific.

Third, the integration of urban design values into the community planning process should also be addressed. Such values evolve best aided by a core group of centrally available urban designers. A sincere, objective, and non-condescending sharing of urban design expertise with recognized community groups is the surest way to achieve urban design objectives. A citizen involvement program should be part of any such strategy. This approach demands a relativistic rather than an absolute set of urban design values. It is the approach most likely to succeed in our present age of participatory democracy; Baron Haussman, however, would surely disagree.

Finally, it should be added that the three general classifications of development control measures described below are somewhat arbitrary. For example, the zoning regulations in some special districts may be written with such uniform control applied within the district that they may be listed more appropriately under "as-of-right" administration than elective design review. In some other special districts, the design review is mandatory rather than elective. Considerable variation also exists among cities in the way "growth management" measures are devised, and not all of these belong to the elective design review approach.

1. "AS-OF-RIGHT" ADMINISTRATION

In localities hostile to a review procedure which allows a great deal of administrative discretion in the exercise of review powers (see "Mandatory Design Review" below), the uniform controls approach has been tried across the country, with indifferent results. Typically based on a

districting scheme, different requirements for height, setbacks, yards, etc., apply rigidly within "zones" in a mapped street framework. This crude, "broad brush" form of regulation has the virtues of being, as a rule, briefly stated and uniform in application, because it establishes rather simple common denominators. It works with a minimum of exercise of discretion by the governmental body, and so tramples less than other types of controls on the rights of individuals. But some urban designers find this type of ordinance unsatisfactory because it tends to be too permissive. It does not incorporate high standards of planned variation and tends to focus on reducing damage, rather than on producing affirmative results. It makes no real attempt to study communities and their idiosyncratic ways and appropriately individualize land use administration.

A more sensitive variant of the as-of-right approach is represented by the so-called "housing quality" system proposed for New York City. This zoning system integrates a series of relevant design considerations into the permissible envelope of development. Allowable densities are granted based on the extent to which the housing project provides desired design amenities such as scale, security, privacy, sunlight, recreation space, apartment size, etc. Each amenity is given a certain number of points. When a set total of points is accumulated, a certain level of density may be granted. The approach is considerably more sophisticated than normal zoning regulations, and its administration likely requires a large, sophisticated design staff. To date, this system has been adopted only by New York and there only as a voluntary option. It remains to be seen how effective it will be.

2. ELECTIVE DESIGN REVIEW

A variety of techniques overlay elective design review on a basic as-of-right framework. Typically, under such provisions a developer may choose to accept a certain design review process or certain conditions, in exchange for being allowed to build more space. The person in question may accept a restrictive covenant on the proposed development, in order to get the desired rezoning for that land. He or she may allow the transfer of development rights from certain critical properties (historic, ecological, or others) to another location, so as to realize the development and still protect the critical resource. Or the applicant may accept a site plan review specified in a planned unit development, in order to get away from the specification standards contained in a regular zoning ordinance.

Techniques of this type may include the following:

a. **Incentive Zoning.** This simple technique allows floor-area-ratio (FAR) bonuses based upon provision of amenities in accordance with area plan objectives. (This device should not be confused with as-of-right FAR uniformly available.) Additional floor area beyond the district maximum is allowed, generally on the basis of an estimated cost-benefit relationship and after an individual review of the adequacy of the amenities. Some believe that in New York City this approach has produced good results—desired design (Lincoln Center environs), uneconomic but necessary uses (new legitimate theaters within the Theater District), and circulation amenities (new second level pedestrian network south of the World Trade Center). But others believe the hidden municipal cost of obtaining the desired amenities may be too high. The cost-benefit relationship under incentive zoning generally is not as favorable to the city as to the developers.

b. **Development Rights Transfer (DRT).** Development rights transfer is a means of preserving threatened critical resources such as landmarks, natural areas, or scarce urban open spaces, by allowing the permissible development envelope which would normally apply to the site to be transferred and added to that of another site. DRT, as advocated by John Costonis and others, invariably involves a balancing of competing values—the threatened critical resource vs. over-bulk on the receiving lot. It is the kind of technique which seems

to require an urban design plan and individual exercise of discretion, as well as a vigorous real estate market. In almost all cases.

Successful use of development rights transfer also may require alterations in traditional zoning classification. Downtown is one of the areas where DRT is most likely to be employed. But in most cities today, downtowns are zoned so high that there is no deterrent to any high density development in any case. Thus DRT offers little attraction to most developers. Unless downtowns can be rezoned properly, there will be little chance to use the DRT technique.

c. **Special Districting.** The use of design review in special districts is a technique increasingly in vogue. Under this technique, a special district is created to protect characteristic features deemed important to the community as a whole. All proposed developments in the district must be reviewed for conformance with protective regulations. In all cases, this technique must rest upon a well-considered plan which identifies the salient values and objectives of an individual area and demonstrates a relationship between such values and the well-being of the city as a whole. Such special districts may well contain mandatory features, such as arcades on certain frontages, plazas in defined locations, tree preservation, landscape preservation, view corridors, facade treatment, setback controls, and use restrictions. But to avoid legal challenges, each of these mandatory requirements should be framed to permit a reasonable use of individual affected properties.

Special review zones in Seattle, design zones in Portland and Minneapolis, hillside environmental quality zones in Cincinnati, and a proposed conservation district in Dallas are some examples of such special districts. New York City has some 28 special design districts in its zoning ordinance, each one preceded by and based upon an area planning study. The districts have not been challenged by the affected owners. But New York has been quite flexible in utilizing the prohibitions available to it in regulating these districts. The city negotiates with an individual owner to elicit the reasonable use of his land, consistent with the objectives of the statute. Thus, there is no hard-and-fast prohibition from the outset, as with "as-of-right" controls; there is simply a review process which assures that no undesirable development slips through or occurs by accident.

d. **Use of Restrictive Covenants.** When changing zoning district classifications upon private application, it may be advisable to bind the applicant to the scheme he proposes. If the proposed development fails to materialize, any alternative scheme must, according to this use of restrictive covenants, revert to rights under the pre-existing zoning district classification. Such covenants, framed unilaterally, have in some cases escaped condemnation as "contract zoning," but it is essential to check state law on this point. With this important device, it is possible to use zoning district reclassification as a major occasion to achieve specific urban design goals on a given parcel of land.

e. **Planned Unit Development.** Typically, this elective technique is chosen by developers of large tracts of land who are anxious to minimize costs associated with peculiar terrain found within the acreage. The PUD is a zoning device which allows relaxation of zoning regulations with regard to setbacks, building coverage, etc., in exchange for the provision of certain desired amenities in the proposed development. Approvals must depend upon a sensitive design review process and require individually crafted legal instruments creating homeowner associations and urban design restrictions running with the land. It may be possible to mandate planned unit development in the context of larger local area plans.

f. **Growth Management.** The courts have sustained a variety of devices which relate new growth to infrastructure capacity and other local values, including urban design. The Petaluma, California, case exemplifies a judicially well-received growth management plan containing sophisticated urban design criteria to guide building permit issuance. Under this

approach. Issuance is related to the satisfaction of enumerated design criteria as well as infrastructure and non-exclusionary considerations. Whether the administration of such an ordinance can be left to administrative plan review or requires the exercise of some discretion has to be left to local judgment.

3. MANDATORY DESIGN REVIEW

This type of regulation represents the opposite end of the spectrum from "as-of-right." Typically, mandatory design review has been sustained judicially in the context of developments within historic districts. A landmark preservation commission or other architectural review board is established as the custodian of particularly defined urban design values, and its jurisdiction extends to fine-grain building alterations as well as to new developments within the district. Such unusual powers should be clearly authorized under state enabling legislation which recognizes the state-wide significance of the particular area of concern within which the board exercises its czar-like rule.

The above discussion implies that mandatory design review generally produces better design than "as-of-right" administration. Not all urban designers agree, for in fact the success of any urban design legislation depends on how strong the legislative mandate is, how well the legislation is drafted, how effectively the design criteria are defined, and how well the review process is structured. Thus the language of the ordinance and the actors involved play key roles in the final outcome of the review process, and all influence the end products of a piece of design legislation. In some cases, as-of-right controls may prove adequate. In other cases, mandatory design review may be necessary. But not all mandatory design review ordinances are written in a fine-grain manner, though in recent years urban designers have begun to tailor legal instruments more closely to the intended design.

It also should be understood that, in general, all design review systems impose administrative burdens. Mandatory design review poses a particularly heavy administrative burden on jurisdictions wishing to avail themselves of it. It represents a decision by local taxpayers to support aesthetic and other socio-economic values to be achieved by effective design review.

B. PERFORMANCE STANDARDS

Considerable conference discussion was devoted to the use of performance standards in local design administration. Most conferees believed that this type of standard could constitute a new form of design legislation to help achieve many qualities desired in our environment. Thus this was seen as one area in which research might yield the greatest benefits.

1. BASIC PROVISIONS

Performance standards are regulations providing general criteria for determining the acceptability of certain types of development, as distinguished from specification standards or detailed requirements. Performance standards should be based on public needs, goals, and aspirations. Such regulations do not bar any industry or use by name, but rather admit any use at all, provided that noise, vibration, smoke, odor, dust, dirt, glare, heat, fire hazards, industrial waste, traffic, etc., are under certain tolerable levels.

Theoretically at least, performance standards can provide both stability of expectation and flexibility of application, giving more freedom to the developer or other actor in the situation. They may be more specific in measuring the impact of a proposed development and allow for better evaluation, as well as remove some of the arbitrariness often inherent in the other more

commonly used specification standards. In practice, of course, the effectiveness of performance standards depends upon many factors, among them the specific standards adopted, the review procedure prescribed, and the actors in the development process.

2. SIMPLE VS. COMPLEX RULES

A major problem in drawing up any development ordinance is a choice between simple rules and very complex ones. The simple rules may establish stable expectations for developers and the public, but they don't necessarily gain the ends desired—protecting and enhancing the quality of the environment. On the other hand, very complex rules establish the form of the environment very closely, but they risk prohibiting many possible innovative solutions to problems. Furthermore, the situation may drift away from the solution embodied in the rules, and then the rules become at least irrelevant and often harmful. How does one manage an environment under shifting conditions? How does one insure that those rather subtle and diverse qualities of an environment be maintained?

While urban designers' knowledge of the environmental qualities desired by urban residents may be increasing, there is not enough expertise in the development of performance standards for such qualities. The Swedish planning standards described in the conference are performance standards. But they deal with the simplest sorts of things, such as distance of access to and amount of space required for public facilities. Such matters are relatively easy to state as performance standards. On the other hand, urban designers have yet effectively to state performance standards relating to environmental qualities such as views, visual quality, sense of identity with the environment, privacy, etc. Several conference participants believed there are ways of approaching such matters, but doing so requires far greater explicitness about the performance criteria and the public purposes involved in setting the standards.

3. ADAPTATION TO CHANGE

When performance standards are clearly linked with their legislative intents, it allows the standards to be challenged and modified if they are not working.

It is important to recognize that no piece of design legislation can or should be permanent. Many practitioners subscribe to the belief that planning is indeed planning for change, and the legal and legislative processes must alter as community values change and broaden. However, legislative procedures for change are often very cumbersome, and many suggest administrative ways of allowing such changes. A continuous feedback process is also needed to assist in evaluating the rules and making necessary changes from time to time. To make this kind of feedback possible, the criteria must be explicit.

4. LEGAL FACTORS

Performance standards are obviously legally tenable. They also help resolve another issue of crucial importance—the continuing tension between public purpose and individual freedoms. That tension is not unique to urban design, but rather it has to do with all public intervention. It is impossible to balance those competing concerns well, and to make a legal defense in court, unless the public purposes involved in any regulation can be clearly stated. Again, working out performance standards and trying to understand what is the true public purpose in, say, protecting a view or setting pornographic movie houses well apart, help urban designers both walk the line between intervention and freedom and also defend their actions in court.

5. COSTS OF ADMINISTRATION

There is a need to quantify and reduce the costs of administering performance standards. Some conference participants believed that performance standards often require a very expensive level of implementation and enforcement, and they questioned whether, given current municipal fiscal constraints, performance standards are a realistic option. Others disputed this position.

arguing that performance standards can be concisely specified and effectively enforced at a reasonable cost. In fact, such standards are being used more widely every day.

An analogy was drawn between performance standards for urban design and those for materials testing. In materials testing, once something has been judged to be an unacceptable solution to a problem under the performance standard, the testing procedure need not be gone through again. Thus it is possible to see the high costs of administering urban design performance standards as "start-up costs," which would fall once it became clear that there were three or four rather typical ways of resolving each problem. Every case need only be reviewed until such time as certain prototypes emerge as the norm. The question then becomes how to absorb or reduce the start-up costs for performance standards.

6. PERFORMANCE-BASED STANDARDS

Another suggested refinement involves the use of "performance-based" standards rather than performance standards. These are rules derived from performance standards but simpler in form and hence more easily and inexpensively measured and administered. Thus, while a sign ordinance's performance standard might require a sign to be "readable from the street," a performance-based standard might require the sign's "lettering be at least four inches high," based on research which determined that the average driver, under normal conditions on the street in question, would not be able to read lettering any smaller. A traditional sign ordinance based upon specification standards, by contrast, might dictate that "the maximum size of a wall sign may not exceed 50 square feet." Such an ordinance might have been established without referring to, or assuring compliance with, such performance objectives as making letters on the sign readable from the street. While all regulations are supposed to be based upon certain legislative intents, these intents are not always clearly stated in the rules. And in many cases the original intents have been lost as conditions altered but the rules remained unchanged.

It is also possible to establish fixed rules for routine decisions, but allow an "escape hatch"—optional review—for the developer with an innovative project who is willing to spend the extra time and money required.

7. USE OF PARAPROFESSIONALS

Another suggestion for reducing costs of enforcing performance standards is the use of paraprofessionals to assist professionals, once enforcement rules and procedures are clearly defined. Baltimore, for example, has used paraprofessionals to assist its building inspectors in their regulatory programs.

8. INDIRECT COSTS

The seemingly simpler traditional specification standards may be more costly than performance standards in terms of precluded alternatives and unanticipated effects. One of the advantages of being precise about performance standards is that one begins to measure what the costs are and can then anticipate better what the effects of action will be. Then it is possible to decide whether the advantages of a complicated rule are worth the administrative cost or not.

9. RESEARCHABLE ISSUES

There is an urgent need for research to help cities find better methods of development control. Such research might center on:

- a. Development and testing of performance standards, taking into account environmental preferences and attitudes of various groups of people, including decision-makers.
- b. Best ways to administer performance standards.
- c. Ways to reduce and absorb start-up costs of administering performance standards.

- d. Ways to reduce costs of continuing administration of performance standards.
- e. Ways to evaluate and refine performance standards periodically.

C. ENVIRONMENTAL IMPACT STATEMENTS

1. CURRENT PRACTICE

The National Environmental Protection Act of 1971 (NEPA) calls for an interdisciplinary approach in an environmental impact statement (EIS) evaluating the impact on the natural and man-made environment of major Federally funded developments. Thus far, however, Federal agencies have tended to focus primarily though not exclusively on the impact on the natural environment. The impact of Federally funded projects on the built environment has generally been overlooked in the EIS process.

Conference participants differed on whether the EIS process as a whole is a worthwhile exercise. The process does help insure that all parties interested in a project are heard. When properly followed, the preparation of an EIS can promote a better designed urban environment by assuring a comprehensive look at the problem at hand and helping identify the best alternative solution.

The EIS process, however, has not been as helpful thus far as the law intended in assuring balanced technical consideration of issues, meaningful public participation, and advancing the best alternatives in a given situation. It has not helped to secure better quality in the built environment. Further, the process often is quite costly and time-consuming; sometimes it even stops worthwhile projects. As numerous problems reduce the potential effectiveness of the EIS process, this is an area in urgent need of research and reform.

2. RESEARCHABLE ISSUES

Those who believe that EIS is salvageable would like to see substantial change in the form and procedure of the process. They identify the following urgent research needs with regard to the EIS process:

- a. How can meaningful guidelines be developed for the preparation of the EIS's for the built environment? Such guidelines could be used by local governments in their evaluation of proposed development projects in their cities.
- b. What is the minimum interdisciplinary capacity that is required for various localities to participate meaningfully in the process of preparing and reviewing EIS's?
- c. What are the obstacles and elements of unreasonable, wasteful delay in the EIS process? How can the process be simplified without sacrificing its effectiveness in assuring the quality of the environment?
- d. What are the critical information and resource (funds, staff, etc.) needs for organizing a data bank related to the natural and man-made environment, for use by local governments in compiling a basic inventory for the preparation and review of EIS's?
- e. What are the roles of local government and developers in the EIS process? The aim should be to find out which parts of the process may best be done by government and how to insure efficiency and effectiveness.
- f. How useful is the EIS process in insuring environmental quality?

If, as some feel, the EIS process is not useful, what are some other promising alternative environmental assessment procedures? Suggestions include adaptation of the post-construction evaluation technique (see "Some Alternative Research Strategies" below), better integration of environmental assessment into the normal comprehensive planning process, and evaluation by a neutral body.

IV. URBAN DESIGN MECHANISMS IN LOCAL GOVERNMENT

Public demand for better quality environment in our cities is increasing, and more and more local governments are responding to such demands. But to become more responsive, local government must (1) expand its services and functions to include better management of the urban environment, and (2) alter its traditional organizational structures.

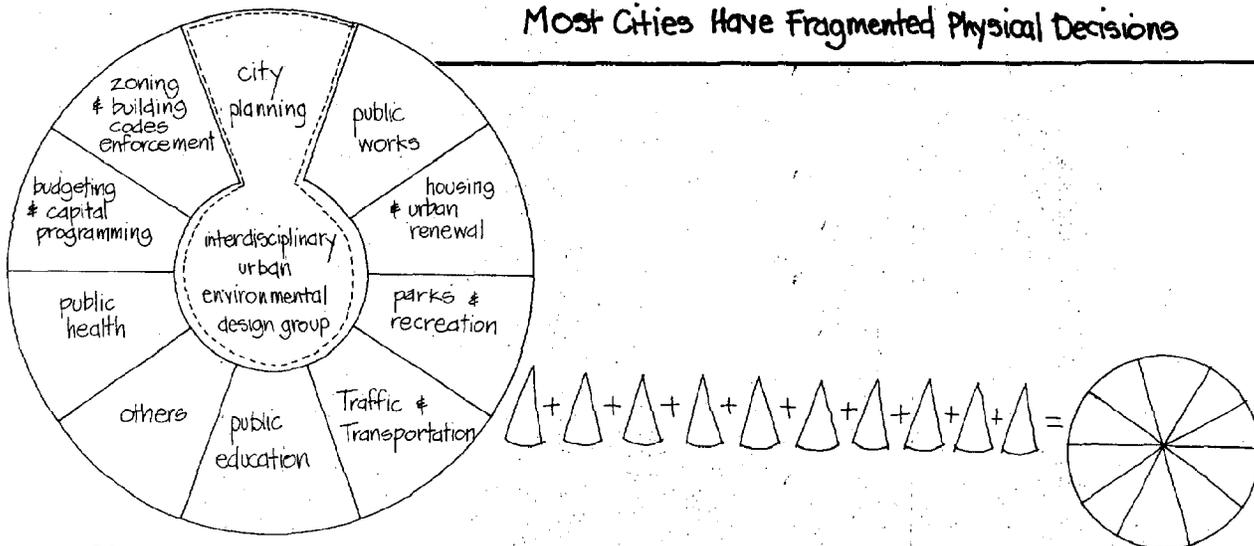
A. OBJECTIVES

Alterations in traditional organizational structures would serve a number of objectives:

1. Increased amenity, accessibility, safety, security, and other desirable environmental design features.
2. Protection of natural resources and natural beauty.
3. Preservation of historical and cultural heritage.
4. Optimal use of limited physical and financial resources.
5. Maximum public benefit from public investment.
6. Maximum incentive for private investment.
7. Increased sense of community.
8. Other social and economic objectives.

B. MODELS OF ADMINISTRATIVE MECHANISMS

Most Cities Have Fragmented Physical Decisions



Administrative mechanisms in local government can be structured in a number of ways. With effective public-private interaction, any of a number of mechanisms can lead to better urban design. Four alternative models of such mechanisms can be described (see chart). These may be called (1) the ad hoc problem-focused concept, (2) the multi-agency dispersal concept, (3) the key or lead agency concept, and (4) the ombudsman concept.

1. THE AD HOC PROBLEM-FOCUSED CONCEPT

The ad hoc problem-focused concept might represent the situation of any design agent assigned to work on a specific problem for a limited time period, under a mandate from community decision-makers. Such agents might be a consultant group from outside which comes in to assist a city in solving a problem, as in the case of a hired firm or AIA's Regional Urban Design Assistance Team (R/UDAT) program; a Community Design Center (CDC) taking a major role in the community and assisting the city government in relating planning to citizen needs; an agency of city government itself; or other variations.

2. THE MULTI-AGENCY DISPERSAL CONCEPT

The second model is characterized by urban designers placed in numerous agencies throughout a city government. This model represents the situation in Baltimore, Portland and Seattle. In Baltimore the city planning agency has a strong staff in many disciplines, while the Charles Center-Inner Harbor Management, Inc., a quasi-public agency, maintains primarily legal and administrative staff and uses design consultants when they are needed. The public works department has strength in engineering, but also has good working relationships with persons in other disciplines.

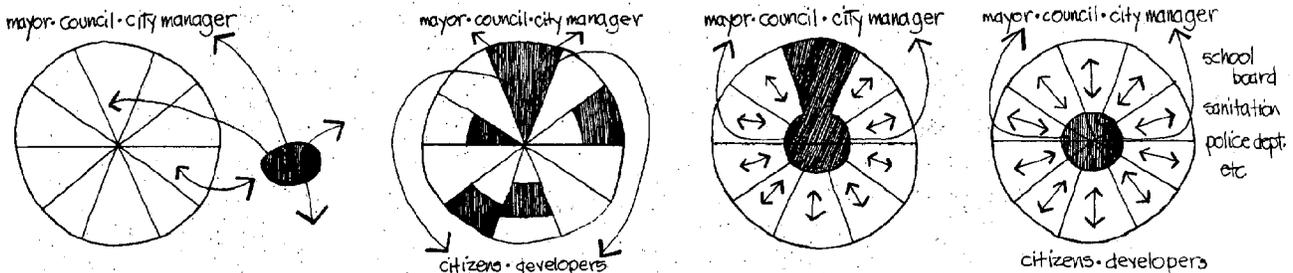
3. THE KEY OR LEAD AGENCY CONCEPT

The third mechanism, which is in use in Washington, D.C., San Francisco, Dallas and other cities, is characterized by one agency, perhaps the city planning or possibly public works department, which has an inter-disciplinary staff but retains its own separate organizational identity and mandate. It provides design services to other agencies of city government, as well as carrying out its own projects. In addition, it has direct lines of communication to chief decision-makers.

4. THE OMBUDSMAN CONCEPT

Under this model, a single agent or agency is designated to represent the public interest in the environment and is allowed to deal with any agency at any time. Then the ombudsman can report complaints directly to the chief executive, be it mayor, city council, or city manager, bypassing any other authorities.

C. LIMITATIONS OF THE MODELS



1 ad hoc problem-focused concept **2** dispersal concept **3** key (lead) agency concept **4** ombudsman concept

Smaller Cities
Consultant Teams

Seattle
Portland
Baltimore

Washington D.C.
San Francisco
Dallas

The models offer reasonably accurate general descriptions of the diverse mechanisms existing in local governments. But much additional research is needed to clarify the structure and content of each suggested model, to understand its effectiveness in different local circumstances, and to discover how the structure may change from one period of a city's organization to another. What kinds of staff, budget, administrative mandate, and legal sanction must accompany the respective administrative mechanisms also require considerable research. The limited experiences of cities such as San Francisco, Minneapolis, New York City, Dallas, Cincinnati, Portland, San Antonio, Seattle, and others should be studied and evaluated carefully.

D. CHARACTERISTICS OF EFFECTIVE MECHANISMS

Experience in Minneapolis, San Francisco, Dallas, and other cities has shown that effective urban design mechanisms often display these characteristics:

1. The urban design office has direct lines of communication with the chief executive and policy-makers of the city (mayor, city council or city manager).
2. The urban design office is given mandatory referrals and design review powers on design issues and projects.
3. There is continuous, close communication with the many diverse business and public interest organizations in the city.
4. The design office, and also the planning department if the design office is part of it, has adequate budget, competent staff, and effective management organization.
5. There is multi-disciplinary capacity in-house. There is also an effective use of consultants from time to time, to complement in-house capability in solving special problems.

E. RESEARCHABLE ISSUES

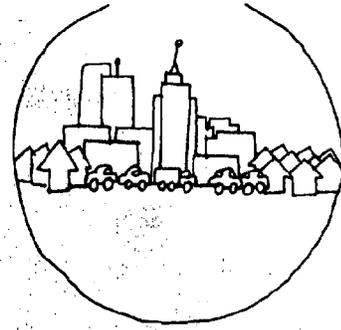
There is an urgent need to study the urban design mechanism in local government, since that mechanism is a primary determinant of the city's success or failure in designing and managing the urban environment. In particular, urban designers need to know:

1. What can be done to make urban design an important component in the comprehensive planning process?
2. How should urban design considerations be integrated into the capital programming and budgeting process?
3. What can be done to integrate urban design considerations into the city's day-to-day decision-making process? What are the major obstacles to achieving this goal? What new laws, powers, or institutions are needed?
4. What kinds of urban design organization, staff capability, and budget support are needed in city hall? How do these needs vary with community size? What other factors influence the effectiveness of urban design within local government? What special consideration must be given to small towns?

5. What are some of the measures most likely to be effective in insuring that all public projects have the highest possible design quality? Such measures might include higher financial commitments and sensitive, intelligent use of design commissions and competitions.

6. What are some of the public incentives and regulations which can stimulate the private sector to achieve high quality design?

**URBAN DESIGN
RESEARCH CONSIDERATIONS**



I. INTRODUCTION

It is important to examine certain factors which form the context within which urban environmental design research must be planned and carried out. First are the characteristics which differentiate this type of research from that in other fields.

Second are a number of deficiencies in research in this field, including irrelevance; inaccessibility of findings; lack of use by local governments of existing knowledge; neglect by researchers of researchable information possessed by local governments; need for research by local governments as well as universities and research institutions; need for case studies; and lack of a coherent theoretical frame of reference to which various research findings may be related.

A third factor to be considered is three alternative research strategies proposed by the conference, each suitable for use under certain conditions. These are contextual research, the long-term case study focusing on one problem and one place through successive adaptations; "trickle-up" research beginning with a small problem and working outward toward a larger context; and post-construction evaluation of a given project.

II. NATURE OF URBAN DESIGN RESEARCH

Almost every conference participant agreed that certain characteristics differentiate research useful in urban design from that employed in other fields.

First, urban design is an explicitly normative field, concerned basically with creating valuable new possibilities for old or new things, rather than dealing primarily with systems already in existence. Thus, the most important research needs involve a process of experimentation rather than a process of research relationships which already exist. Such experimental research must be integral to a project's organization, implementation, and evaluation—what one participant called "the whole stream of action." Such research, however, must begin with selection of a series of contexts judged to be the important arenas for work over the next few years, and continue with support for consistent research in one place over a long period of time. Such support would allow processes to be tried, retried, and adapted based on results of previous efforts. (See "Contextual Research" below.)

A second distinguishing characteristic of the urban design field is that it involves human experimentation and the creation of very costly, relatively permanent environmental features. If one shoots a rocket into space and it misses its mark, it just keeps going; there is no need to worry about it too much. But urban designers must worry about the consequences of everything they do, because human beings are going to be living with the results. Thus it is not possible to try things in an impartial, detached manner. And whatever experimentation is done in urban design must be of a type which allows failures to be corrected so that eventually they work.

Third, the type of useful experimental research which is integrated into a project from beginning to end can only be done by those who are part of the project. In some fields it is possible to do basic research in a place detached from the place where it will be applied. But in urban design this is not so. People in the field, rather than those not directly involved with design, must control the research. And urban designers must learn to build research into all phases of their projects, changing as the experiment changes, as goals change, as feedback indicates new possibilities or needs. As one person said, "We must build a culture of research, not a research program or research effort."

Finally, the urban design profession lacks systematic methods of sharing useful research results. Improved dissemination techniques need to be established or built into research projects so that intelligence can be conveyed to others working in similar contexts.

III. CURRENT RESEARCH PROBLEMS

A. MAJOR DEFICIENCIES IN URBAN DESIGN RESEARCH

Before presenting suggestions for specific research, it is important to point out some major deficiencies in urban design research as it has, or has not, been carried out to date. To remedy these deficiencies, basic reforms are needed in research programs, emphasis, organization, and funding. Means must be found to insure that research findings are used by practitioners. Effective links must be created between local governments on the one hand, and research institutions and Federal agencies on the other.

1. **Much of the research done is irrelevant to the problems of urban designers practicing in the real world. At the same time, many types of research needed by local governments are being ignored.** For example, a few years ago a visual simulation laboratory was built at great cost, but it remains unavailable for use by most urban designers. Meanwhile, needed research on easy-to-use simulation techniques has been neglected. With regard to this problem, answers should be sought for the following questions:

- a. What can be done to make the research needs and priorities of practicing urban designers known to researchers?
- b. How can direct links be established between practicing urban designers and research institutions, so that the two together can determine what problems should receive highest priority in research? Such links could also insure that when research findings are used by designers, the results are communicated back to the researchers.
- c. What can be done to make certain that practicing urban designers have continuous opportunity to comment on the national research agenda in urban environmental design?
- d. How can direct links be established between research managers in Federal government and design administrators in local government?
- e. What can be done to make certain that relevant research is given top priority in research agendas?

2. **Useful research findings are not readily available to practicing urban designers.** To alleviate this problem, research might be addressed to the following questions:

- a. How can conferences be structured on a regular basis to bring together local government officials and research managers, to exchange information and carry out continuing evaluation of research agendas and priorities?
- b. How can an effective system be set up for reporting and disseminating research findings within the field? Such a system could encourage the application of innovative findings on design, legislation, administration, and citizen involvement to the pressing environmental problems plaguing urban areas.

3. **Useful research findings are not being employed effectively, if at all, by local governments.** Such factors as inaccessibility of research findings, attitudes of local government officials and staff, and limitations on staff capability no doubt contribute to this failure in particular cases.

Careful study should be directed to the following questions with regard to this problem:

- a. What are the legal and administrative constraints on local governments in using available research findings?
- b. What are ways of overcoming these limitations?
- c. What can be done to link research findings directly with policy formulations in local government?
- d. What can be done to provide continuing mid-career training programs for practicing urban designers?

4. Local governments, being at the center of most key local environmental decisions, often have a **wealth of researchable information, but this information is not utilized.** Local governments need environmental design research to help solve the city's diverse problems and help urban designers do a better job. But for a variety of reasons, local governments often fail to encourage such research. Studies should be conducted to find out:

- a. What can be done to make local government provide a better setting for continuous research on urban design problems, issues, policies, and mechanisms?
- b. How can mutually beneficial links between local governments and research institutions be strengthened, so that when problems arise which require major research, research institutions can perform the necessary tasks?
- c. How can funds be allocated to research institutions for projects deemed important by local government?
- d. How can local governments be used increasingly as centers of research, with researchers being sent to work there or with funds allocated to local governments where research capacity does exist?

5. **While universities and research institutions should continue to be primary centers for urban environmental design research, such research should not be conducted exclusively in and by them.** Faculty research at universities, for a variety of reasons, is often aimed at satisfying the school's internal requirements for tenure and merit increases, and the resulting research may or may not be relevant to the needs of institutions outside the university. On the other hand, experience has shown that under certain conditions local governments can initiate, sponsor, and/or conduct innovative research themselves. Though at times local government personnel may lack skill, time, interest and detachment, they often do possess these requirements. Also they have the advantages of being at the heart of urban activity and having access to a wealth of research material. And their research findings often are applied directly to local policy decisions. A simple case may illustrate the usefulness of local government research efforts. The field of cognitive psychology has for some time had expertise which could have provided a solid basis for more meaningful and effective performance-based sign ordinances. But until just a few years ago, almost all sign ordinances in this country remained primitive. At last, through the initiative of a few local governments (Gainesville, Florida; Dallas, Texas) and based on research done in the localities, major breakthroughs were made in developing totally new types of performance-based sign ordinances. Research is needed to deal with the following questions:

- a. What can be done to make local government take part in research programs on environmental design?
- b. What can be done to train practicing urban designers to be better researchers?
- c. How can funds be allocated to local governments which are supportive of, and possess the capacity for, research programs?

6. **Case studies are needed to document success and failure in urban design.** There is a pressing need to examine the successful and unsuccessful experiences of particular cities and groups in confronting specific problems or utilizing specific techniques. Many feel that looking at failures is a way of pinpointing what has not worked and whether the failure was due to faulty planning, institutional or bureaucratic behavior, law, design, or other factors. By contrast, others feel that scrutinizing successes can build motivation and teach positive approaches to problem situations. Certainly both approaches are useful.

It is also important to study the same design issue or problem in a number of contexts, in order to gain an understanding of different possibilities and of the factors determining optimal use of a given solution.

Two types of case studies were recommended. First is an ongoing research effort conceived as an integral part of decision, development, use and management of a project (see "Contextual Research" below). This style of case study represents a very ambitious idea with implications for the way research is conceived, organized, and funded, and for what research methods are used.

Where such integrated, continuous research is not possible, case studies may be made of the post-development performance of environmental prototypes and strategies (see "Post-Construction Research" below).

7. **Many individual research projects are carried out with an inadequate frame of reference.** Research which is done without reference to some larger framework is not cumulative or comparable. Thus many findings are being collected in narrowly defined areas, but the results do not add up to generalizations about human environment which designers can actually use in their practice. Some refer to this wasteful process as "dust bin empiricism."

B. TOWARD A FRAME OF REFERENCE

Basic research is needed to create a coherent frame of reference for classifying and describing the processes of urban design. Some conference participants offered tentative models for describing the urban design field.

1. PEOPLE MAKE ENVIRONMENT

A model for the process of designing environment is summarized in the chart, "People Make Environment." This formulation includes the actions of "producers" and "consumers," as well as results of their actions.

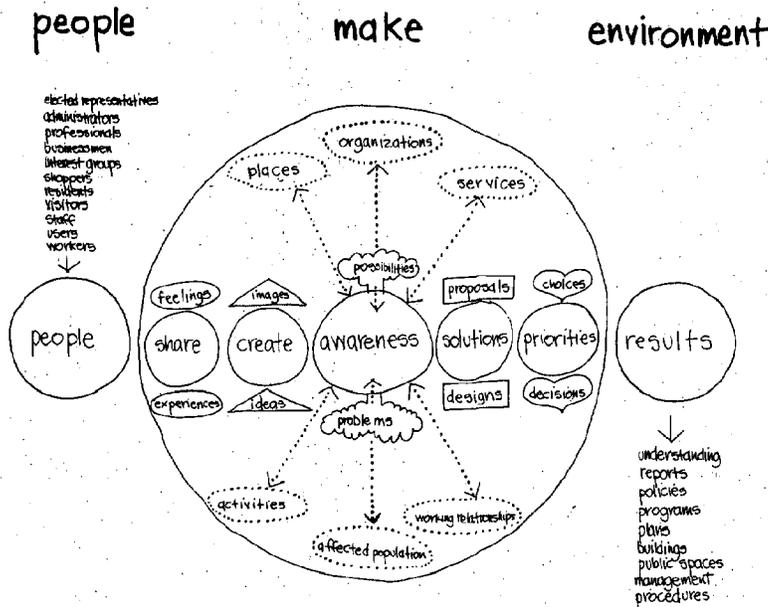
The people involved in the environmental design process are shown at the left of the diagram. There are "producers," including elected representatives, administrators, professionals, businessmen, organized lobbies, and interest groups. And there are "consumers," the people who are directly affected but are not always involved in the design process, including the users of a facility, workers in a business, shoppers in a downtown, residents of a neighborhood, visitors to a city, etc.

The center portion of the chart illustrates a series of steps that intervene between the wishes of all these different contributing groups and the outcome of the design process. First come (1) a **sharing** of feelings and experiences among the people affected; and (2) the **creation** of images and ideas which clarify the real possibilities and problems of the given environmental situation.

These steps result in (3) an **awareness** of places, organizations, services, and the total environment; of activities going on in the environment; of populations affected by that environment; and of the working relationships of people in that environment.

From that awareness come (4) the creation of **solutions** which take the form of particular proposals or designs, and (5) the setting of **priorities**, i.e., making choices and decisions about the range of possible solutions. (6) The **results** might consist simply of improved understanding, or of more substantive reports, policies, programs, plans, buildings, public spaces, management procedures, and so on.

It is also significant that the chart is symmetrical, since the process can also run backwards so that environment makes people.

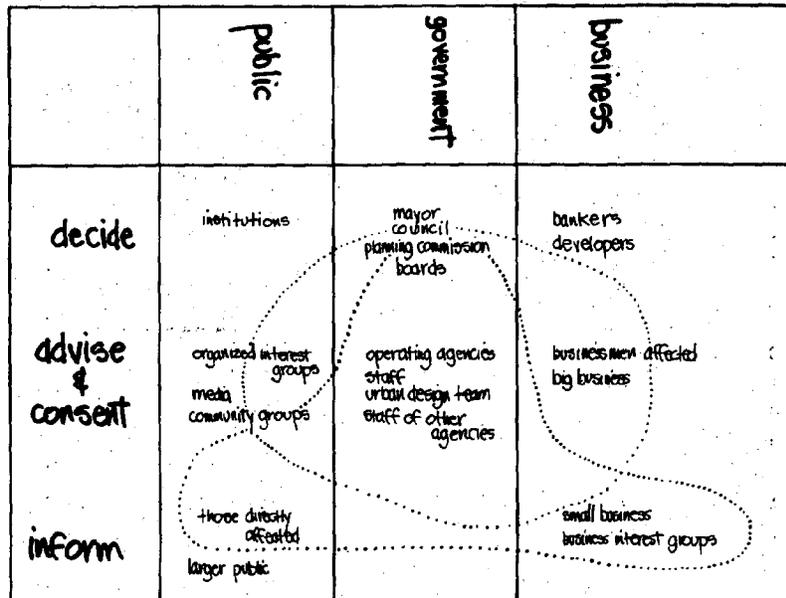


The actors in a normal development process, as well as how they relate to each other, can also be described. In the chart "Actors in the Development Process," these people are broadly classified as public actors, government actors, and business actors.

Usually the urban design team is located among the **government actors**, under a mayor and council, planning commissions, boards, or others who are making the decisions. There is an operating agency with its staff and then within that an urban design team or consultant team. There may also be staffs of other agencies. These varied groups operate at different levels of decision-making. Some decide, some advise and consent, and some just inform.

Among the **public actors** in the design process, the same variation in decision-making levels may be seen. The most highly public institutions may be very highly organized and function on the decision-making level. Some organized interest groups may rise to that level as well. The media may influence decisions, but usually they serve in an advise-and-consent capacity, as do community groups. Those directly affected normally do not participate in this part of the process. If they are included at all, they simply inform the decision-makers concerning their needs, wishes and expectations. The larger public may hear about developments through the news media, but normally it does not get involved at all.

Actors in the Development Process



Major **business interests**—banks, developers, and businessmen who directly affect a project such as downtown renewal, for example—may be involved in the design process at the advise-and-consent level or even at the actual decision-making level. Normally small business interests are not so involved. Business interest groups may be involved in informing or may even advise and consent.

Normally in a design process a line is drawn to include some of the actor groups and exclude others. The effectiveness of the process depends to a large extent on how comprehensively that line can be drawn and how many of these groups can be included. And in order to include very diverse groups, different styles of involvement and design must be used with different ones. The approach that can work with businessmen is very different from that which can work with consumer groups.

2. SENSORY QUALITY OF THE PHYSICAL ENVIRONMENT

One conference participant drew a distinction between the two fields of urban design and comprehensive planning. In a statement prepared for the conference, he noted, "Urban planning is usually considered a separate thing from urban design; if we think of the latter as a concern for the quality—particularly the sensory quality—of the immediate physical environment. The former is conceived as a continuous process of large-scale management and political decision, dealing with abstract quantifiable aspects of the spatial and social environment. The latter has been project-oriented, manipulating site plans or detailed characteristics, emphasizing qualitative criteria, and using graphic architectural means. I am convinced that sensory and physical quality can be an integral component of large-scale comprehensive planning. If so, however, it is large-scale architecture no longer, but a continuous process of quality management, which must influence and coordinate the decisions of numerous actors. It is then concerned with policy, with the continuous monitoring and evaluation of changing situations, with regulation, incentives, triggering actions, administration and all the other tricks of general management. And it must do this without losing its grip on immediate sensation and qualitative norms."

This participant felt that "urban design" is not a separate profession. Rather, the consideration of environmental quality, as it is affected by physical forms, activity patterns, and environmental

Institutions all together, must be incorporated into training in physical city planning, architecture, landscape architecture, and civil engineering. The barriers between those schools should be knocked down, some conferees contended.

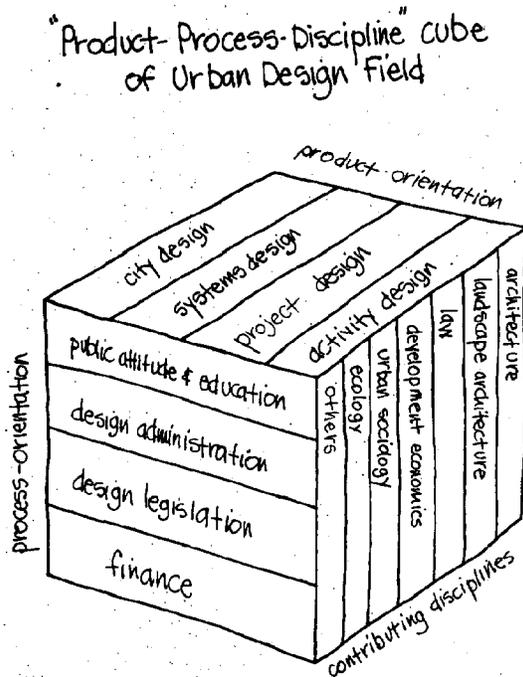
There was no general agreement among conference participants concerning whether urban design is a separate profession. Some felt that "urban design is not a state of mind. It is a tough, challenging professional service."

3. PRODUCT- PROCESS-DISCIPLINE

A third conference participant stressed strengthening the decision-making process affecting design, as well as upgrading the design product itself. Urban design, to be effective, must be defined broadly and must be an integral part of the comprehensive planning process in a city.

Urban design activities may be grouped broadly under product and process orientations. Activities aimed at preparing a certain city or regional plan, a school campus, or a system of street hardware are primarily product-oriented. A finished product remains when activities are completed. Activities aimed at the enactment of certain legislation or the reorganization of administrative structures are primarily process-oriented. Upon completion of the activities, decision-making processes will have been improved, making possible the later creation of a better designed product. (Note: Fuller discussion of design process and product is contained in the 1975 "National Urban Design Policy Statement" of the American Institute of Planners; see Appendix E.)

If urban design may be represented by a cube (see "Product-Process-Discipline Cube" chart), then the design field may be divided three ways. With a product orientation we can cut the cube vertically along a plane into four parts representing city design, system design, object design, and activity design.



With a process orientation, we cut the cube horizontally along another plane into four parts representing public involvement and education, design administration, design legislation, and finance. Thus **city design**, for example, will have its aspect of public involvement in the resolution of city design issues. There are levels of administrative, legislative, and financial questions which need to be addressed in each category of urban design activity.

The cube can also be cut along the third plane to express the ways in which different disciplines contribute to the specific design product or process. Depending on the design activity at hand, one discipline may contribute more than others at a given time. In designing a downtown mall, for example, architecture, landscape architecture, engineering, and behavioral science may play dominant roles, while finance and administration play secondary ones. But in preparing a preservation ordinance, the legislative aspect of urban design is most pertinent, and preparation of the ordinance will draw on the disciplines of architecture, history, administration, and development economics.

a. Products

The products of urban design may be divided into several broad categories based on scale, multiplicity of clients, complexity of factors to be considered, and time span required to complete the product. Urban design is possible under varying conditions. Four types of design products may be perceived as embracing these conditions—city, system, project, and activity. The first three types overlap and interact.

(1) **City or Regional Design.** This category embraces design of the general spatial arrangements of activities and objects over an extended area, where the client is multiple, program indeterminate, and control partial, and where there is no certain state of completion.

(2) **System Design.** This term describes design of a functionally connected set of objects, facilities, or activities, which may extend over large areas but do not make a complete environment (e.g., an arterial street system; a lighting system; the design for street landscaping, signing, and "furniture").

(3) **Project Design.** This term refers to design of a defined geographic area, however large, in which there is a definite client, a concrete program, a foreseeable time of completion, and effective control over the significant aspects of form. Designs for a housing project, a new campus, a small new town, an urban renewal project, or a freeway corridor are examples of urban design activities at this scale.

(4) **Activity Design.** This design is for a program aimed at improving public use and enjoyment of the designed environment. This type of design product differs from the preceding ones in that the end product under activity design may not consist of any physical facilities at all. The focus is on programs or planned or unplanned activities which may take place in the designed environment over a specified period of time (e.g., festivals, events, displays). This type of design is similar to **project design** in that there is a definite client, a concrete program, a foreseeable time of completion, and effective control over the significant aspects of the planned events.

At present, most product-oriented urban design activities are centered in the **project design** area. In recent years, more attention has been paid to **system design** activities, such as design of street hardware, graphics, etc. There is also increasing appreciation of the importance of **activity design**, with the creative work done for a downtown mall in Washington, D.C., as an example. On the other hand, comprehensive **city design** remains rather rare; Minneapolis and San Francisco offer the only examples. An effective urban design program for a city depends on a successful combination of all four types of urban design.

b. Processes

Urban design processes, by contrast with products, are determined by public attitudes toward design; administrative structure and process governing design; legislative mandate, regulation, and incentives for better design; and financing devices for achieving improved design.

In general, more urban designers are product-oriented than process-oriented. Therefore they have more expertise in the methodology of project and system design than in administrative and legislative aspects of design. They may appreciate the importance of public involvement in design but not have adequate skills to achieve this involvement. Process, however, actually determines product. So obtaining the desirable administrative and legislative context is often more important than obtaining the best design methodology.

There is a pressing need to reorder the priorities of environmental design research. While research on design methodology is needed, higher priority should be placed upon research related to design process.

c. Disciplines

The knowledge of urban design at present derives from many fields. Architecture, landscape architecture, law, development economics, urban technology, engineering, human and natural ecology, anthropology, sociology, environmental psychology, management science, and others all make crucial contributions to urban design. Thus some feel that it is not a separate field at all, though it may someday become one if current growth continues. Others feel that urban design is indeed a separate discipline, distinguished by the creative act of bringing together expertise from many fields and fusing them into a set of comprehensive conclusions.

IV. SOME ALTERNATIVE RESEARCH STRATEGIES

Three approaches to urban design research emerged from the conference discussion—(a) contextual, (b) "trickle-up," and (c) post-construction. Depending on the issues at hand and the funding and other capabilities available, one or more of the three research strategies may be selected. The three strategies certainly can complement each other. It is desirable for a city to have an overall contextual research program on a long-term basis, while "trickle-up" and post-construction research may also be conducted from time to time.

A. CONTEXTUAL RESEARCH

Most conferees agreed on the need for what may be called "contextual research." This type of research is an ongoing case study conceived and carried out as an integral part of the design-decision-implementation-management of a project. The recommendation for this research style grows out of several convictions:

1. In urban design, every part of the process is related to every other part. A change in one affects all the others. Thus the research itself will have effects which need to be taken into account in planning and implementation. And the research design must be based on recognition of the **interrelatedness of the entire design process**.

2. It is essential that research be conceived as part of the overall process, so that the researcher will be able to judge what **level of focus** is appropriate in a given circumstance—whether to focus on the system as a whole, or on individual parts, or both. Thus it will be possible to avoid meaningless, narrowly focused projects which are unrelated to any larger context.

3. The urban environment changes over time, so the designer works within a context of flux. Research must focus on this larger temporal context and **must deal with the workings of change**. The case study approach, staying with one situation over time, is necessary in order to be able to study the relationship of changes in city values, economic conditions, and other factors to urban design concerns and activities.

4. Urban design research, by contrast with many types of scientific research, **can be undertaken only in the context of real people and events**. Because human beings will be living for years with the effects of any experimentation, it is not possible to approach research with a cool, detached attitude. Thus research must be carried out as an integral part of the design process, under the direction of those involved. (See "Nature of Urban Design Research" above.)

5. This style of research demands selection of those few issues deemed most important, then support for consistent lines of research in one place over a long period of time. This long process is required to **accommodate successive adaptations** based on continuing evaluation of results.

B. "TRICKLE-UP" RESEARCH

Some conference participants felt that because of the primitive state of urban environmental design theory today, at times it may be more useful to begin with a very small, concrete problem

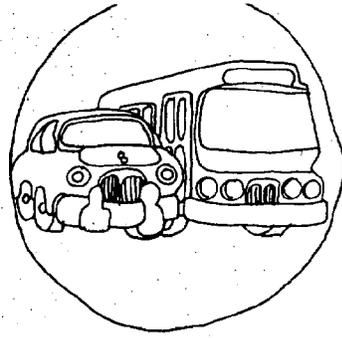
and work from that out toward larger issues. One participant noted that such "trickle-up" research may be more valuable than the "trickle-down" approach employed in other fields. For example, a particular city which had installed street lighting wished to find out if the improvement had had any effect. This almost trivial question proved to be a window on a much larger world, for in order to answer that question the researchers had to deal with more general issues such as how people regard their cities at night. The implication was that by choosing several contexts as the important arenas for research in the next few years, it would be possible to amass considerable specific information from which important generalizations could be drawn. Such an approach might prove as beneficial as attempting to generate applied research from some general theoretical framework.

C. POST-CONSTRUCTION RESEARCH

While the first two types of research strategies require major investments over relatively long periods of time, post-construction evaluation can be accomplished with fewer resources and in a shorter time. The purposes and results, of course, will be quite different. Evaluations should focus on environments which are working well and those which are not, so as to develop an understanding of the factors which lead to project viability and success, as well as failure.

While it cannot supplant the other types, such evaluation can serve a number of useful purposes. Staff critiques of completed projects provide an excellent learning experience. When contrasted with original intentions, the evaluation furnishes solid evidence on which future programming can be based and by which public policy may be modified. Such evaluations can also help develop an informed public understanding of design issues.

RECOMMENDED RESEARCH AGENDA



I. RESEARCH RECOMMENDATIONS

A number of research recommendations were made at the Dallas conference. No attempt was made to be exhaustive in developing the agenda of needed research. The outline presented here is merely a delineation of the areas where research was judged to be most needed or most likely to yield fruitful results, given the present level of knowledge in environmental design.

Specific lines of research suggested may be grouped in four categories—design legislation, design administration, design issues, and communication and education. Many of the research lines suggested cut across categorical boundaries.

Higher priority should be given to research programs centered on design process than those on design product. At present, more innovations are occurring in the area of design legislation than in other types of process-oriented activities. By contrast, there is little knowledge yet accumulated on design administration; yet this is the area where greatest benefits could be obtained from research.

A. DESIGN ADMINISTRATION

In the area of design administration, the following subjects were suggested for research:

1. The evaluation of various urban design mechanisms in local government, including (a) organization, staffing and funding for the urban design office; (b) relationship between design and other city government functions; and (c) programs, activities and strategies which may be undertaken by the design office.
2. The management of the design process for complex communities and complex, uncertain design programs.
3. The impact on city design of proposed public investment in infrastructure.
4. Training of paraprofessionals to assist professionals in administering environmental design, enforcing codes, etc.
5. The effectiveness of urban design assistance programs such as the American Institute of Architects' Regional Urban Design Assistance Teams.
6. The development of innovative settings.

B. DESIGN LEGISLATION

The following subjects were suggested as worthy of investigation with regard to legislation for design:

1. Unanticipated side effects on the quality of the environment which result from ordinary legal codes for building, zoning, fire, safety rules, insurance provisions, etc.

2. Costs and benefits of development control measures such as incentive zoning.
3. Use of performance standards in design legislation.
4. Various design review techniques and processes and their respective costs and effectiveness.
5. Development of various design criteria and measurement of their respective effectiveness.
6. Use of the EIS process to achieve a better designed built environment.
7. Alternatives to the EIS process.

C. DESIGN ISSUES

Designers and social scientists interested in assessing or developing solutions to key design issues with regard to the environment might usefully focus on these problems:

1. Ways to determine which things are knowable from an individual's first-hand, partial experience of living and working in an environment, and which things are knowable only by seeing a system as a whole.
2. Ways of measuring direct and hidden costs of particular developments.
3. Successful management of commercial and residential environments.
4. Ways to rehabilitate older suburban areas.
5. Influence of energy use on design—for new construction and rehabilitation; the use of new energy sources.
6. The appropriate scale of modification of the environment under varying conditions.
7. The quality of the everyday experience of the environment, particularly the experience of a workday.
8. The impact of residential and workplace density on various users.
9. Advantages and disadvantages of, and criteria for, achieving a desirable mix of residential and commercial uses in a given area, and of socio-economic groups in residential areas.
10. The study of recurring patterns of settlement.

D. COMMUNICATION AND EDUCATION

The importance of community attitudes in determining the course of environmental design implementation has been discussed above. The conference also noted a critical need to improve

communication and education for design professionals. Among research projects and innovations suggested were the following:

1. Ways to use the environment as a laboratory for learning—environmental education and the educative environment.
2. Means of communicating environmental information among professionals and citizens, including simple, low-cost, "quick-and-dirty" techniques of simulation and prediction.
3. Development of a national system of reporting and distributing research findings in urban design.
4. Motivations of leaders and decision-makers, and ways to influence them to see design as an important component of the life experience.
5. Ways to marshal volunteer assistance and citizen energies to supplement and support public efforts and resources.
6. Ways to utilize local craftsmen.
7. Ways to release and integrate the creative energies of different groups of environmental "consumers" and to convert them into "producers."
8. Ways to provide meaningful mid-career training programs to update professionals' education.

II. ADDITIONAL LEGISLATIVE AND GOVERNMENTAL NEEDS

Certain policies and actions with regard to Federal, state and local governments were identified as critical needs in the urban design field. These include:

A. FEDERAL GOVERNMENT

1. Federal policies and programs should recognize that better urban design is of crucial importance in improving urban life.
2. Federal policies within and among Federal agencies, (e.g., the Department of Housing and Urban Development [HUD], the Department of Transportation [DOT], General Services Administration, National Endowment for the Arts, National Park Service, National Trust for Historic Preservation) should be better coordinated. Coordination between HUD and DOT is particularly important.
3. Associations of design, legal, social science and other professionals (e.g., the American Institute of Architects, American Institute of Planners, American Society of Landscape Architects, American Society of Civil Engineers, American Bar Association, American Psychological Association, etc.) and design-related professionals within Federal agencies must provide leadership in promoting more effective urban design policies and programs.
4. Categorical grant programs involving urban design and historic preservation should be instituted.

B. STATE GOVERNMENT

1. State governments should exercise leadership in providing a favorable "design climate," by:
 - a. Setting examples in state and state-funded projects.
 - b. Providing state appropriations and incentives for local urban design projects.
2. In areas of critical concern for the man-made and natural environment, states should be allowed to override local decisions.
3. Effective enabling legislation for design review at local levels should be initiated.
4. Support should be strengthened for state arts council programs in the area of environmental design.
5. Design professionals in state government should play a stronger role in urban design and related activities at the state level.

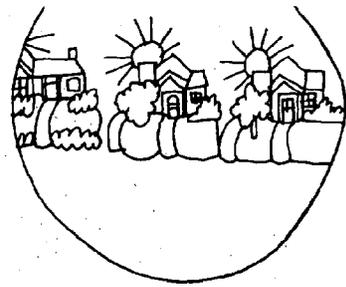
C. LOCAL GOVERNMENT

1. Urban design plans and guidelines should be required elements in local development plans.
2. The design review process should carefully balance design goals and concern for substantive and procedural due process. Conferees differed on how best to accomplish this. Some suggested review by qualified design professionals only; others wanted wider involvement of builders, users, etc. Others suggested use of a quasi-judicial hearing examiner system.
3. Effective administrative mechanisms for urban design must be established. Interdepartmental coordination among line agencies should be instituted.
4. Adequate consideration should be given to urban design in the preparation of capital improvement programs and annual city budgets.
5. Effective *de jure* involvement of citizens of neighborhoods and subcommunities in the design process should be established.

D. THE TENTH AMENDMENT

Conference participants stressed the need to preserve the constitutional provision of the Tenth Amendment that all powers not expressly delegated to the Federal government should be retained by the states. With regard to urban design, the Federal government should set some very basic guidelines and policies, but the states and local governments should develop more specific standards and carry out regulation.

APPENDICES



APPENDIX A

DALLAS ENVIRONMENTAL DESIGN CONFERENCE PROGRAM "ROLE OF URBAN DESIGN IN LOCAL GOVERNMENT"

Friday, June 25	INTRODUCTION AND OVERVIEW
1:30-2:30	Reception
3:00	CONFERENCE OBJECTIVES, AGENDA Welming Lu Henry Lagorio
3:15	REVIEW OF DESIGN PROGRAMS IN SELECTED CITIES Moderator: Andrew Euston, Jr. Panelists: John Kriken - San Francisco Robert Moffitt - Minneapolis Welming Lu - Dallas Jonathan Barnett - New York City
7:00	Dinner
8:00-10:00	CITY DESIGN METHODOLOGY (Survey, Analysis, Design Framework, Implementation)
8:00-9:00	European Experiences Moderator: Andrew Euston, Jr. Panelists: Gösta Blucker, Sweden P.G. Meijer, Netherlands
9:30	HUD FILM FOR U.N. HABITAT CONFERENCE "DESIGNING THE URBAN ENVIRONMENT"
Saturday, June 26	DESIGN METHODOLOGY & IMPLEMENTATION DEVICES
9:00	PROJECT DESIGN/SYSTEM DESIGN/ACTIVITY PROGRAMMING (Joint Development, Streetscape, Street Graphics, Neighborhood Design, Citizen Participation, Downtown Planning, Malls, Special Areas, Etc.) Moderator: Steve Carr Panelists: Gary Hack Paul Muldawer
10:45	DESIGN LEGISLATION AND ORDINANCES (Incentive Zoning, Design Review, Historic Preservation, View Protection, Growth Management, Planned Unit Development, Etc.) Moderator: Norman Marcus Panelists: Kevin Lynch Bob Stipe
12:00	Luncheon

1:00	PUBLIC ATTITUDE AND EDUCATION
	Moderator: Margo Wellington Special Guest: Bryghte Godbold, Executive Director, Goals for Dallas
2:00	ADMINISTRATIVE AND FINANCIAL ASPECTS
	(Urban Design Office, Budget, Staff, Relationship With Other Departments, Federal and State Support: Private Sector, Etc.) Moderator: Herbert Stevens Panelists: Weiming Lu John Kriken
3:00	CITY DESIGN
	Kevin Lynch
3:45	DESIGN REVIEW
	(Procedure, Criteria, Design Services, Etc.) Moderator: Jonathan Barnett Panelists: Donald Ingram Ronald Straka
5:00	ENVIRONMENTAL IMPACT STATEMENTS AND THE BUILT ENVIRONMENT
	Moderator: Andrew Euston Panelists: Robert Moffitt Norman Marcus
6:30	Dinner
8:00-10:00	REVIEW SESSIONS
	(Conducted Simultaneously) Team 1 Design Methodology: Steve Carr, Gary Hack, Paul Muldower Team 2 Design Implementation—Administrative and Financial Aspects: Andrew Euston, Jonathan Barnett, Bob Moffitt, Herb Stevens Team 3 Design Implementation—Legislative Aspects: Bob Stipe, Norman Marcus, Donald Ingram Team 4 Research and Education: Kevin Lynch, John Kriken, Margot Wellington, Ron Straka
Sunday, June 27	SUMMARY
9:00-11:45	Review of Team Reports
12:00	Luncheon
	POST CONFERENCE WRAP-UP
	Weiming Lu, Kevin Lynch, Andrew Euston, Henry Lagorio, Don Williams

APPENDIX B

QUESTIONS SUBMITTED BY PRINCIPAL INVESTIGATOR TO CONFERENCE PARTICIPANTS PRIOR TO DALLAS CONFERENCE ON THE ROLE OF URBAN DESIGN IN LOCAL GOVERNMENT

A. URBAN DESIGN PRACTICE

1. What can we do to make urban design consideration more a part of the city's day-to-day decision-making process? What are the major obstacles in achieving this? What new powers, laws, or institutions are needed?
2. What can we do to make urban design an important component in the comprehensive planning process?
3. What can we do to make the preparation of environment impact statements of built environments an important consideration in the municipal decision-making process?
4. What kind of urban design organization, staff capability, and budget support, do we need in city hall? How would they vary with the size of the communities? What other factors affect the effectiveness of urban design within local government?
5. How should urban design consideration be integrated into capital programming, budgeting process?
6. What can we do to encourage more public and private partnership in developing joint development strategies which can achieve high quality design?
7. What can we do to make certain that all public projects will have the highest quality of design possible?
8. What can we do to make the public more aware of the potential and the value of good urban design?
9. What can urban designers do to assure effective citizen participations in the planning process? How important is citizen participation to urban design? Under what circumstances has citizen participation in urban design been successful?
10. What types of urban design projects can be undertaken by small, medium size or large cities?
11. What are some of the more promising new concepts, processes, techniques, institutions for accomplishing environmental design?

B. DESIGN RESEARCH AND EDUCATION

12. In what areas of behavioral research are there vital gaps in knowledge most needed by urban designers?
13. How can we use research findings in behavior science, ecology, management theory, and other areas of research, more effectively in local governments?
14. What are some of the cutting edges of research in these areas?
15. How can research findings be better disseminated among and used by urban designers?
16. How can vital research needs be identified on a continuing basis?

17. What are some of the constraints on local governments for using available research findings?

18. How could planning and architecture curriculum be restructured to provide adequate training on urban design for today's practice?

19. What kind of programs may be needed in planning and architecture schools for mid-career retooling?

APPENDIX C

STATEMENT FOR DALLAS CONFERENCE ON THE ROLE OF URBAN DESIGN IN LOCAL GOVERNMENT

by Kevin Lynch

Urban planning is usually considered a separate thing from urban design, if we think of the latter as a concern for the quality—particularly the sensory quality—of the immediate physical environment. The former is conceived as a continuous process of large-scale management and political decision, dealing with abstract quantifiable aspects of the spatial and social environment. The latter has been project-oriented, manipulating site plans or detailed characteristics, emphasizing qualitative criteria, and using graphic architectural means. I am convinced that sensory and physical quality can be an integral component of large-scale comprehensive planning. If so, however, it is large-scale architecture no longer, but a continuous process of quality management, which must influence and coordinate the decisions of numerous actors. It is then concerned with policy, with the continuous monitoring and evaluation of changing situations, with regulation, incentives, triggering actions, administration and all the other tricks of general management. And it must do this without losing its grip on immediate sensation and qualitative norms.

I have suggested my own view of how that can be done in an essay now in press: "Managing the Sense of a Region." A few xerox copies of the page proof of this monograph, unfortunately without illustrations, will be available at the conference. It discusses the problem in general outlines the criteria which might justify public management of sense quality, describes the means of implementation that are available, and sketches one possible way of organizing for the task. Appendices give more detail on the experience to date, the analytical techniques that are available, the research base (and the gaps in it), and some examples of more detailed programs.

This essay expresses my own view of most of the issues initially raised for this conference, but it might be useful to respond to a few of the preliminary questions that went out with the conference call. In doing that, many of the other questions are also covered.

Q. What are some of the more promising new concepts, processes, techniques, institutions for accomplishing environments?

Some of the more promising ideas for managing city quality that occur to me:

1. **Programming and performance standards** for sensory quality. Quality can be built into normal regulatory codes in a flexible, performance oriented way. Similarly, the programs for new development, public and private, can specify qualities to be achieved, qualities which are budgeted for and whose achievement can be tested. Programs and standards will improve private and public work, and can tie directly into the capital budgeting process. They will be effective over large areas on a day to day basis. They allow for effective public participation and for learning from experience. They may be our most strategic point of implementation.

2. Emphasis should also be placed on the **management** of public enterprises: the streets and the parks, but also the encouragement and regulation of activity, and the conduct of such institutions as the schools, the public works department, or the police, where they bear (as they so often do) on the quality of the public environment. The future management of a development should always be considered in planning for its quality.

3. The provision of **design services** for communities, other public agencies, or private groups normally deprived of them, may be an amiable way of extending a design influence, although it may also be a heavy burden on the budget and staff time.

4. **Diagnosis** of the existing quality of a locality, done with local assistance, and directly communicated to local residents, can be an excellent way of engaging public participation and local support.

5. A staff **critique** of the quality of an important project, once completed and in use, is an excellent way to learn and develop informed public awareness. When contrasted with original intentions, it furnishes the solid evidence on which future programming can be based, and by which public policy may be modified. Clearly, it may meet stiff resistance from builders, but public action is irrational unless tested for effectiveness. Occasionally, the staff may be used to **predict** the performance of a proposed project. This is more uncertain, of course, but clearly better than the conventional environmental impact statement, which is put together by the interested party.

6. It may be worthwhile to conduct a periodic **survey** of the general environmental quality of a city. To prevent a heavy drain on staff, however, this should be confined to a few important, well-defined indices, plus major environmental changes since the preceding survey, i.e., a simple "state of the city" report.

7. **Framework designs** may be a good way of dealing with large areas. These designs would be comprehensive, advisory policies for the quality of a substantial area, expressed as the location and timing of facilities, their expected performance, and any area-wide quality norms to be achieved. These are like extensive, abstract, and very flexible site plans, serving to coordinate the work of diverse actors. They could accompany capital budgets.

8. **System designs** for such features as lighting, signs, commerce-fronted roads, planting, transit vehicles, etc., may have a pervasive effect.

Q. In what areas of behavioral research are there vital gaps in knowledge most needed by urban designers?

I think of the following as being some of the more important gaps in our knowledge:

1. The technique of creating and testing sensory programs and performance standards, as discussed above.

2. The development of participatory methods in environmental design.

3. Further development of techniques for the simulation and prediction of sensory qualities.

4. How environmental values are changing and the mechanisms of change. Also, the image of change and of time.

5. The quality of work environments, a largely neglected subject.

6. How environments can be used and modified to support learning and development.

7. The development of new environmental prototypes.

8. Investigations of equality and deprivation in the distribution of sensory resources.

Q. What are some of the cutting edges of research in behavior science, ecology, management theory, and other areas?

Some of the most interesting research today, in my opinion, is being done in studies of the environment of children, and in environmental education.

Q. How could planning and architecture curriculum be restructured to provide adequate training on urban design for today's practice?

A long story, and I am still uncertain, except for my conviction that "urban design" is not a separate profession. The consideration of environmental institutions all together, must be incorporated into training in physical city planning, architecture, landscape architecture, and civil engineering. The barriers between those schools should be knocked down.

APPENDIX D

MUNICIPAL URBAN ENVIRONMENTAL DESIGN Statement for Dallas Conference by Andrew F. Euston, Jr.

WHO WATCHES THE URBAN ENVIRONMENTAL STORE?

The opportunity for advocating that specific Federal research activity be applied to national needs is of considerable importance to me at this moment in time. As an urban design professional with over eleven years of government service in Washington, D.C. — primarily for HUD, I claim to have a somewhat unique perspective. The recent NSF conference on the Role of Urban Design in Local Government has strongly reinforced what I believe needs saying here.

What I see convinces me that highly significant strides can be made on several fronts with respect to American attitudes and behavior in adapting creatively to a resource scarce future. The opportunities lie at local government levels in the broad area of urban environmental design. Please note that throughout my discussion of these opportunities the term "urban environmental design" shall replace "urban design".

Basically I share the views of many other Washington-based students of our times. Our common humanity hinges on the outcome of numerous impending conditions. Each condition is potentially more precarious than the next. Population control, arms control, energy and resources control, and human settlements control have become commonplace global crises that we hear being discussed.

At the Federal level, in all honesty, one often wonders how things have held together this long. They are becoming dire, that is sure. The *Bulletin of the Atomic Scientist* permanently displays on its cover a clock whose hands are ominously fixed well past the eleventh hour. Recently the minute hand was advanced an additional three minutes. Here in the Capital EPA, ERDA, NOAA and FEA have been legislated and appropriated to cope with the natural environment and resource crises facing us. These new agencies all came within a five year span of time. Urgency is indeed a message here.

In light of these grave considerations my theme may seem impertinent. It would appear to be the case that the single most palpable "handle" to grasp on the portentous voyage ahead will be urban environmental design.

Certainly here in America things are easier changed than people. Globally, we cannot control others, but we can set examples. The collective impact of the urban habitat comprises the most substantial source of social, economic and environmental influence that we impose upon the planet and in turn upon ourselves.

Incrementally we in this country may have begun to examine the urban environmental consequences. Urban form, taken as one integral whole, we do not as yet explore. The fragmented structure of urban environmental decision making in American city government reflects this fact. There is no on-going integration of how any one American city gets built. Rhetoric at all governmental levels notwithstanding, where the overall impacts of urban environmental change are concerned no one is "watching the store".

NEW PROCEDURES DEPEND UPON NEW ATTITUDES

There is no question here of perfect master planning. Urban environmental design is a matter of deliberate administrative procedure and of conscious public attitude, and these have been missing up to now. Americans have, at times, a positive genius for problem solving. We appear to be indifferent towards urban design as a problem. We do not consciously perceive the city, its form, its patterns of incremental growth and, thereafter, its daily operating requirements of natural resources and human preoccupation. Much will change once our survival has been explicitly linked to the form and substance of our physical habitat.

We physically alter the typical American city at the rate of less than five percent a year. That is, much that is built is incremental and even imperceptible. There are to be sure fast growing cities or sectors of cities, yet as a rule the public and private investments in physical development are slow to alter the ordinary citizen's perceptions and experience.

Add over time the transient migrations of American families from one city to another as jobs, education and the individual life cycle affect us, and one may understand why the "urban design" of any given settlement is popularly perceived, if at all, as something fixed and immutable. Certainly it seems beyond one's personal power to affect things. One may see, as well, why mayors and councilmen holding terms of, say, two years at a time customarily fail to concern themselves with "urban design". There is an obvious analogy here between our belated awareness of the natural environment and our continued disinclination to tackle issues of the built environment.

TOWARDS INTEGRATIVE URBAN ENVIRONMENTAL DECISION MAKING

The above discussion is intended to explain, in part, that in our country cities tend to change without attention to the future. Moreover we proceed to build without an adequate concern for the quality of daily life in the present. Where the pattern may not hold true for increments of physical change, overall, and this is my point, it indeed does.

We can begin to ask more of ourselves and to expect more of local government. Unlike reaching Mars there is no single organizing and energizing principle. Self interest and concern for future generations may be enough. The urban environment and its incremental design affords our society a tangible focus for both present and future options.

The administration of local government has enjoyed several post World War II rounds of upgrading. A pre-war mayor would barely comprehend the routine activities of most municipal departments of today. More sophisticated interventions will be needed, and this is what the present discussion is about.

A primary administrative problem in urban environmental design is the fragmentation of city functions into discrete bureaucratic domains that remain functionally overlapped. The overlapping is limitless, but the time and resources to trace it down is quite limited. There are institutional, professional, procedural and even legal impediments that lie behind the public sector failures to integrate our urban environmental expenditures. One need, given the fact that bright, aware and well trained people abound in the urban environmental field, is to facilitate this talent in entering the public sector.

Meanwhile, regarding city design — its integration and rationalization, it is most commonly assumed that "someone" is responsible for such matters. Professional fields such as civil engineering, architecture, urban and regional planning, city management or law were long presumed to have attended to the greater interests of the public. Jurisdictional gaps between the professions remain unfilled, and the costs of having left them unspanned remains unquestioned. People persist in assuming that "government" is "doing something".

We are made to understand that the overseeing of urban growth is a routine job of zoning boards and city planners, for example, or perhaps the budget agency. Few such agencies, however, are mandated to challenge the assumptions which lie behind patterns of growth and change. America's automobile dependency is a consequence of this institutionalized short sightedness.

The deficiencies in our perceptions reflect a picture of indifference and neglect on the part of us all. Congress, Federal agencies, professional associations, the media, the schools are all in on it. Perhaps the sheer magnitude of the issues have simply forced us to prefer that the issues be taken one by one as they come. Though cities are built according to real political and economic pressures these are no longer an adequate measure of what may be needed. Gauged by the practices of today urban growth in America is essentially a mindless activity.

Our collective avoidance has partly to do with an outmoded assumption about the proper role of city management. It is sustained by the citizen assumption that it will not affect us significantly, by the technician's assumption that the city's form is all too complex to explain, by the elected officials' assumption that there is no politically wise administrative solution and so forth.

These are all relative matters that add up to inertia and powerlessness for us all. In this arrangement either problems must become crises or levels of corrective information must be elevated. Many cities have introduced innovative ways to give continuity to their development. If the successful approaches exist, however, they are not easily transferred. Improving the information on municipal urban environmental design is an optimum solution for putting the false assumptions and the avoidance behind us. We must focus on the appropriate role to be played within local governmental administration.

The principal issue remains the integration of decisions affecting the physical environment of the city. The issue is discussed further on in greater detail. It is asserted here only that more cities must adopt broadly interdisciplinary, integrative, strategic and pluralistic approaches to urban environmental decisions, be these public or private.

THE MEDIATING ROLE OF URBAN ENVIRONMENTAL DESIGN

Public controversies over highway construction, over water and sewer construction, over sub-division moratoriums, over public housing and low income neighborhood integration are widespread.

Even so, few communities respond as though all these events are inevitable expressions of unavoidable urban environmental design needs that must some day be resolved. The results are postponements, inequities and hardships. There is a need within local government, therefore, to introduce the role of urban environmental mediation.

There is within cities the same dilemma we have come to expect within nature whereby something may have to give and compromises be reached — the dilemma of not having your cake and eating it too. Take as one example the suburban commuter's daily ride through somebody else's neighborhood. This practice is becoming a matter for open interjurisdictional metropolitan hostilities in the form of commutation taxation, parking moratoriums and carpool traffic incentives.

Perhaps the most promising sign that this kind of mediation has come of age relates to transportation. Both HUD and DOT are at this very time actively seeking a new modality for local integration of their two missions. The area of transportation joint development and an activity called "value capture policy" are the focus of attention in both Departments, acting through the new President's Committee on Urban Development and Neighborhood Revitalization. As authorized in Section 104(a) of the Urban Mass Transportation Act of 1974, called the Young Amendment, guidelines are being set to support Transportation Corridor Development Corporations. If the precepts of the value capture concept are followed, urban environmental design will be the context in which local decisions will be implemented.

The role of mediation, where the physical aspect of cities is concerned, can be successfully applied, if the needed procedures are well founded, well understood and well accepted. The sixties gave us model alternatives to the traditional styles of urban environment problem resolution. The latter had offered politically or technically imposed solutions on one hand and the politics of confrontation on the other.

Urban environmental design must be politically responsive, but it is not politics and above all, not confrontation. As with the natural environment, the urban environment imposes difficult limitations and tradeoffs that can no longer be resolved by simple majority rule or by administrative fiat.

INTRODUCING RESEARCH TO SUPPORT URBAN ENVIRONMENTAL DESIGN

The question now before Federal government as a whole is not whether, but rather where to begin design-oriented interventions into our urban growth processes. The HUD Community Development Block

Grants to local government reflect the view that design conscious decision making can be fostered most effectively at local levels.

Some localities are more administratively poised than others. Some are beset with crucial demands to reach the standards of service and accommodation that prevail in our society. At one scale the immediate strategic issue may be the administrative implementation of multi-million dollar joint development "value capture" strategies related to new fixed rail transit facilities. At another scale simple refinements in the design of local bus shelters may be the appropriate point at which to begin enlarging the urban environmental design capacities of local government.

Research must be fitted to these actual capacities. Let us at least assume that one fundamental need exists in every locality — the need to establish viable interdisciplinary approaches to environmental design. This need is a statutory one mandated by Section 102(2)(A) of the National Environmental Policy Act of 1969. It is applicable to all federally assisted local development expenditures.

Interventions adopted by local government may take varied forms. Like Dallas, a city might experiment with a central team situated in an existing agency and mandated to deal across all agency lines. Like Portland, Oregon, a mayor might form an "ad-hoc" interdisciplinary coordination group to deal with a focal environmental concern such as urban core revitalization.

The central point would be that each city demonstrate clearly how it is actively promoting the flow of energy and intellect needed to overcome the familiar intramural habits of mind and prerogative that tend to rigidify public decision making.

As a further exploration of these ideas certain fundamentals of "urban environmental design" may be stated. Starting with the three terms themselves:

A. "Urban" connotes these associations:

1. human and cultural
2. mobile and commercial
3. complex and technical

B. "Environmental" connotes:

1. physical and locational
2. natural and built
3. sensory and three dimensional

C. "Design" may imply:

1. intentional and deductive
2. procedural and implementable
3. scientific and artful

What we have learned from the past decade or more is highly relevant to any theory of fundamental administrative principals. Consensus building, option identifying, commitment seeking and other administrative objectives must characterize the behavior and procedure adopted by local government. To achieve them three basic ingredients must be folded into each separately directed decision making process:

- A. Integrated Decision Making: the public agency and private investor powers must be at the table (i.e.: the decision making team)
- B. Interdisciplinary Design Capability: the professional skills must be tailored to each stage of analysis (i.e.: the design team)
- C. Participatory Involvement: the affected private sector and citizen groups must be given full access to the decision making dialog (i.e.: the citizen team)

These three basic ingredients are peculiar in their form to each administrative situation. Characteristic models are needed, not rigid formulae. Their milieu, moreover, is equally critical. That is, each locality

must have or create a clearly defined context for viable decision making, consisting of such essentials as:

- A. Legal frameworks and ordinances
- B. Agency missions and task assignments
- C. Municipal design frameworks and comprehensive planning
- D. Implementation mechanisms (budgetary, financial, procedural, technical, etc.)

Clearly the area of urban environmental design enjoys incontrovertable relevance to the mission of nearly every domestic research program. Yet related research into local government administrative practice remains neglected. Investigators in the area of urban environmental design are routinely referred back and forth between "hard" and "soft" science research offices within most Federal agencies. Government research tends to serve in the national context of avoidance discussed earlier. It wants and can do much to encourage a better informed and better advised electorate with respect to urban growth and form.

It would be most helpful, for example, to have cities of varied character and size whose public sector operations include some form of urban environmental design clearinghouse. The Urban Observatory program of HUD is a precedent for this idea, if not a precise model. A prime value of such institutionalized capabilities, assuming that public actions flow from them as well, would be their function as a bridge directly between ordinary people and global concerns. Perhaps, too, by such a means the fundamental failures of government supported research to find its way into use could be overcome in this problem area.

CONCLUSION

This paper reflects the fact that a new field of urban environmental design has emerged. It is poised to yield the interdisciplinary talent and tools needed to remold American cities to match their future purposes. Comprised of diverse technical skills, related legal and financial structures and decision making formats that permit wide public involvement, this new field like medicine or space, now requires active Federal government support.

APPENDIX E

URBAN DESIGN POLICIES OF THE AMERICAN INSTITUTE OF PLANNERS*

OUTLINE:

1. ORIENTATION OF URBAN DESIGN
2. GOALS OF URBAN DESIGN
3. URBAN DESIGN PROGRAM AREAS
4. URBAN DESIGN PROCESS
5. GOVERNMENTAL AND INSTITUTIONAL SUPPORT

1. ORIENTATION OF URBAN DESIGN

1.1 Urban design activities seek to develop the policy framework within which physical designs are created. It is that level of design that deals with that relationship between the major elements of the city fabric. It extends in both time and space in that its constituent parts are distributed in space and constructed at different times by different persons. In this sense urban design is concerned with the management of the physical development of the city. Management is difficult in that the client is multiple, the program undeterminate, control partial, and there is no certain state of completion. Its concern is with both the urban built environment and the natural environment as impinged upon by urban development.

1.2 Historic Preservation/Conservation is a major component in the urban design process. The landmark emphasis within the design program specifies the need for protective cultural heritage and achieving a balance mix between the past, present and future appearance of the built environment. Through a selective process: based on citizen support and involvement, a stated selection criteria and design controls; an appreciation for the historic, cultural and aesthetic in the environment will be achieved.

2. URBAN DESIGN GOALS

2.1 To enhance, protect, and create functional and perceptual quality in the built and the natural urban environment, and to guide urban development to achieve these goals.

2.2 To protect and enhance areas of historic, architectural, or cultural importance.

3. URBAN DESIGN PROGRAM AREAS

Urban design programs and action plans at all levels of government should:

3.1 Save and protect the natural environment by:

- a. Assessing the ecological constraints of an area.
- b. Developing management guidelines for the protection of its natural features and systems.
- c. Developing a growth strategy for the area that not only respects ecological constraints but also insures that the man-made environment is safe from natural hazards.

3.2 Participate in the development of transportation systems and facilities that:

- a. Maximize the quality of the environment, both natural and man-made, at the neighborhood, city, and regional scale, through route and site selection, corridor design, station design, and joint use and development strategies.
- b. Provide a clear, vivid, pleasant, and functionally satisfactory transportation experience to users of public and private transportation.

3.3 Protect scenic resources, both stationary and kinetic viewing experiences, by identifying these resources and developing a view protection plan and appropriate implementation strategy.

3.4 Protect valuable historic, cultural, architectural and archaeological resources by:

- a. Initiating a program of historic landmark preservation/conservation in the urban design process.
- b. Formulating a preservation plan and ordinance to administer the process.
- c. Establishing a permanent office of preservation/conservation and provide it with a professional staff.
- d. Drafting legislation and programs to encourage recycling, restoration, preservation and conservation through fiscal incentives and appropriate and flexible zoning.
- e. Coordinating actions and encouraging idea exchange with other agencies including the National Trust for Historic Preservation, The Advisory Council on Historic Preservation, The National Register, state and local programs.
- f. Encouraging development and implementation of preservation plan that will be incorporated within the comprehensive master plan.
- g. Insuring that the capital improvements program will act to complement and improve the designated historic site or district.

3.5 Contribute to the conservation of energy by applying more ecologically based site planning principles, and other methods of energy conservation.

3.6 Create well-designed street and highway environments, through both prototypical and specific-case design activities, which will:

- a. Develop design guidelines for street improvements.
- b. Encourage better design street geometry, lighting, landscaping, and street hardware furnishing programs.
- c. Develop effective sign regulations and improve public signage.

3.7 Build more amenity and quality into the public environment through:

- a. The creation of parks and green spaces of all scales and types.
- b. The provision of opportunities and facilities for leisure and recreational activities.
- c. The provision of art works, activities, and performances in public places.
- d. The development of urban plazas as richly usable multi-functional public spaces, particularly in areas of pedestrian concentration.

3.8 Determine more fully the impacts of physical design features on social interaction, privacy, perception of crowding, and other aspects of the social environment, and encourage the sensitive application of appropriate design features.

3.9 Contribute to the development of personal safety, property security, and crime prevention through various planning devices, including the careful utilization of physical design arrangements in the urban environment.

3.10 Participate actively in the development and enhancement of vivid, coherent, and satisfying overall form, image, and design character of the city and region.

4. DESIGN PROCESS

4.1 Urban design should be a meaningful and effective component of the comprehensive planning process. As part of the comprehensive planning process, urban design should seek to produce policies, design guidelines and action plans that:

- a. Provide individual designers in both the public and the private sector a specific and meaningful overall city context within which to produce innovative and effective individual solutions to urban problems.
- b. Are directed at solving short range problems without losing sight of the long range impact of plans and programs.

- c. Are imaginative enough to inspire private sector designers to make the most of their creative talents, yet realistic enough to attract the confidence and support of the development industry.
- d. Enable public improvements to serve as a catalyst for private investment.

4.2 The urban design process should be carried out in an interdisciplinary manner.

- a. The urban design process should be so structured that inputs from experts in related fields can effectively be utilized as team members within urban design projects and programs.
- b. The urban design process and the staff working within that process should be so structured to facilitate interaction with professionals in other design fields as well as professionals in related fields.

4.3 The urban design process should be participatory and responsive.

- a. The urban design process should be structured such that all citizens, civic groups, and others have adequate opportunity to participate in a meaningful way in urban design projects and programs.
- b. The urban design process should be structured in such a manner that it can take action to increase public awareness and knowledge of the urban environment so that they can take a more effective and meaningful role in urban design programs.
- c. The urban design process should be structured in such a manner that it is able to consider all users, and realize the goals of the ultimate client; the general public.
- d. Urban design processes should take into consideration the special needs of identifiable groups (e.g., the handicapped).

4.4 The design process used by urban designers should be more rigorous.

- a. Urban design processes should seek to use research data from studies of man's impact on the built and the natural environment created through his development activities.
- b. Urban design processes should seek to use data from studies of man/environment relationships that detail man's physiological, psychological, and social reactions to different physical attributes within the environment and to different urban forms and patterns.
- c. Urban design processes should adopt more systematic methodologies to complement and strengthen the intuitive effort that is a part of the creative process; methods and work procedures that make more explicit the assumptions, underlying value basis, underlying data base, and analyses that go into the formulation, evaluation, and implementation of urban design projects and programs.

5. GOVERNMENTAL AND INSTITUTIONAL ROLES

To be an effective agent in guiding the processes of urban growth and development, urban design should be securely institutionalized at all levels of government and in appropriate non-governmental institutions.

5.1 Local Government

Urban design should be institutionalized as a function of local government.

- a. Local government should be encouraged to institute urban design programs as part of their planning programs.
- b. The urban design function should be so organized and located within the local government as to:
 - (1) Insure urban design of a coordinated and effective role in the decision-making processes of the local government, including administrative organization, administrative procedures, policy formulation, and the development of design guidelines affecting the physical development and design of the urban environment by both the public and the private sectors.
 - (2) Provide the necessary urban design inputs to the development of legislative and fiscal tools affecting the quality of the urban environment, including ordinances, regulations, incentives, and other necessary tools.
 - (3) Insure urban design inputs into the budgeting and capital programming procedures within local government.

c. Local government should be encouraged to supplement their urban design function by the use of professional consultants whenever desirable and appropriate.

d. Local government should employ talented designers by commission or competition to undertake many of the projects called for in a capital budget.

5.2 Regional Government

a. Regional councils should be encouraged to coordinate those aspects of urban design which have regional impact.

b. Their role is particularly crucial in assessing and coordinating the urban design impacts of transportation, resource allocation, land use, water supply, and environmental protection.

5.3 State Government

a. State governments should play a role in coordinating regional urban design through their agencies, particularly those concerned with transportation, land use, historic preservation, resource management, and environmental protection.

b. They have a major role to play in enacting forward-looking legislation granting local government powers to engage in certain urban design activities.

c. On the state level, enabling legislation should require that state and local general plans contain historic preservation elements.

5.4 Federal Government

The Federal government should undertake through whatever appropriate means to coordinate the activities of Federal agencies which have impact on urban design. These are crucial in several areas including:

a. Increasing awareness of the importance of urban design in improving environmental quality.

b. Supporting innovative design studies and the collection of information necessary for effective urban design.

c. Supporting the establishment of design offices in local planning agencies and innovative design implementation procedures.

d. Funding capital improvements that add significantly to the quality of urban environment.

e. Supporting research, both in urban design implementation and in more basic fields related to urban design activities.

f. Improving design standards in construction of all Federal projects.

g. Disseminating information concerning urban design impacts of their activities to all Federal agencies.

h. Broadening preservation legislation to provide greater protection and encouragement through financial incentives.

i. Ensuring that federal assistance programs contain preservation considerations wherever applicable.

j. Developing a national preservation statement or plan utilizing the work of the Historic American Building Survey, the National Register of Historic Places, the Advisory Council of Historic Preservation and the National Trust for Historic Preservation.

k. Supporting the establishment of the historic preservation function within design offices in local planning agencies.

5.5 Private Sector

a. Businesses should use their resources in commissioning talented designers for the design of their business and industrial environments.

b. They should help to create a more distinctive and satisfying environment by improving their individual design products (e.g., street hardware, building materials, etc.) and making them more compatible with their surroundings.

c. They should work closely with other businesses and in conjunction with public urban design agencies to carry out public urban design objectives.

*First adopted March 1975; this revised draft of May 1976, submitted for consideration at the six AIP Regional Conferences in 1976 and the AIP Planning Policy Conference in February 1977 in Washington, D.C.

1975 AIP Urban Design Policy Committee: Weiming Lu, Chairman; Andrew Euston; Neel Teague; Ed Hoermann; Gerald Crane; and Andrew Steiner.

1976 AIP Urban Design Policy Revision Committee: Dan Brents, Chairman; Marvin Krout; Jack Luby; Alan Mason; Raymond Stanland; Neel Teague. Corresponding and Contributing Members: Gene Brooks; Stephen Carr; Stephen Carter; Andrew Euston; Joel Goldsteen; Kevin Lynch; Weiming Lu.

APPENDIX F

COMMUNITY DEVELOPMENT AND ENVIRONMENTAL DESIGN

By Andrew F. Euston

Under the National Environmental Policy Act of 1969, Federal agencies are required to give balanced consideration to the natural and social sciences in planning and decisionmaking. This "interdisciplinary" requirement has even greater implications now that cities will be preparing legally defensible analyses of the environmental impacts of local community development programs. (Under the Community Development Block Grant Program of 1974, HUD has delegated responsibility for preparing Environmental Reviews and Impact Statements to all participating local governments.) Cities lacking the technical capability to meet this requirement are vulnerable to litigation, program delays, and even construction halts.

Defining "environmental design" is no simple matter. The term presumes the use of skills which overlap differently at every stage of development. Law, market analysis, social sciences (there are over 50) and design itself—architecture, planning, engineering—all are involved. Taken together, one message from the 1969 and 1974 legislation is becoming increasingly clear: environmental design means more than mere conservation and anti-pollution. We are engaged in the redesign of the human habitat.

"Environmental design" is a more inclusive term than the more familiar "urban design," and it is appropriately now a part of the law of the land. But the terms are often used interchangeably, as in the examples to follow, because it frequently falls upon the urban designer to conceive alternative options for development. Whatever the term, it behooves local officials to protect the public interest that a city's evolving design represents.

TALENT POOLS

Today, an alert city government is likely to have staff specialists who will meet at any time to review special development-related problems. Thus far only a few cities have initiated full-fledged interdisciplinary talent pools in an attempt to harness the full potential of public and private development activities. The logic of doing so is evident if improved urban environment is a civic goal.

Environmental design may still be an abstraction to conventionally trained architects, engineers or planners administering city agency functions such as public works, city planning or development coordination. A number of cities, however, have applied the skills of a new breed of urban specialists who are now working in environmental design.

NEW APPROACHES

Many cities have introduced meaningful urban design frameworks, neighborhood preservation strategies, joint public and private development, and a myriad of ways to stimulate the creation of pedestrian networks, good street graphics systems, conservation-recycling, comprehensive environmental inventories and data retrieval, as well as the framing of design criteria for public works which are responsive to the needs of the people who use them.

Basically this interdisciplinary planning is due to increased awareness of the problems of urban size and complexity. The practical needs of our cities and States are most responsible for the increased viability of this new field of environmental design.

Given the statutory mandate for an interdisciplinary approach to environmental design, given the increased flexibility in Federal supports to cities and given tighter and tighter financial and environmental constraints, how can cities best organize the on-going investment in their development? Some of the answers may lie in administrative approaches of 10 cities where municipal experimentation in this field is underway.

BALTIMORE, MARYLAND

Advanced programs for the entire city have been set up under design-oriented agencies for housing and development, planning, public works and are being implemented by public-private corporations such as the Charles Center-Inner Harbor Management, Inc., development coordinators of Baltimore's massive and continuing revitalization of its central business district.

CINCINNATI, OHIO

Cincinnati has much to show as the result of its tradition of strategic urban design. The Cincinnati development agency's urban design staff acts as a fulcrum in the city's public and private investments in pedestrian networks, neighborhood rehabilitation, downtown revitalization and industrial development.

DALLAS, TEXAS

Following an intensive "Goals for Dallas" program of a decade ago, revisions in the city's administration have included creation of an Urban Design Division within a combined planning and development agency. No other U.S. city appears to have achieved the same level of creative environmentalism (see February 1975 *HUD Challenge*). A core staff of 20 specialists aid all other agencies, developers and community groups in a continually expanding range of activities. The staff provides guidance for several major development, conservation and ethnic community districts. It administers ordinances for planned unit development, for control of street signs and for preservation of historic architecture. This environmental design team offers a good model for other cities. If supported consistently by public and private civic authorities over the coming decade, it promises to give Dallas one of America's most livable urban environments.

MINNEAPOLIS, MINNESOTA

Building upon a decade or more of private sector leadership in the creation of a wholly pedestrianized downtown commercial "skyway," the city government has begun a physical development strategy for the surrounding area of older housing and transitional neighborhoods. The aim is to keep people in the center city and to stabilize "gray" areas by innovations in the financing of homeownership and physical improvement under a greatly strengthened system of urban design, planning and development.

NEW YORK CITY

The focus here is on the special offices of development coordination (for Brooklyn, Manhattan, the Garment District, etc.) which negotiate directly with private developers on behalf of all city agencies and the Mayor. The Office of Lower Manhattan Development alone has devised legally constituted urban design frameworks such as the Special Greenwich Street Development District and the Water Street Subway Station Area which will govern \$3 to \$5 billion dollars worth of private development in offices and center city housing for families over the coming decade.

PORTLAND, OREGON

In Portland, environmental quality is a matter of civic pride. Portland is one of a number of American cities which have invested in organized systems of urban design to guide its future growth. Based on "Planning Guidelines/Portland Downtown Plan," a detailed physical investment strategy has been devised which is called the "Urban Design Plan and Program, Waterfront Renewal Area." Published in a 28-page newspaper format and given wide distribution, the document is concerned with a substantial part of the downtown core. It will guide the city in developing an area where radical physical changes are anticipated over the next 15 years.

SAN FRANCISCO, CALIFORNIA

The problem here, the city's planning department believes, is to contain pressures which would destroy the excellence of the city's largely nineteenth to early twentieth century character. Resolving potential conflicts of new development with existing construction is the focus of the city's "Urban Design Plan,"—a technical document whose environmental design concepts are translated into detailed transportation policies, design control ordinances and other administrative mechanisms used by appropriate city departments.

SEATTLE, WASHINGTON

This city has been keenly aware of its great natural setting and its rich architectural character. The titles of several city functions suggest the attention given by the city administration to issues of environmental protection: Seattle Design Commission; City Conservator, Office of Urban Conservation; City Architect; Office of Policy Planning, Urban Design Section.

TULSA, OKLAHOMA

Tulsa almost lost its urban core through suburban exodus and demolition, but it has taken stock and introduced reforms on several levels. Tulsa's Central Area Task Force, an amalgam of the financial sector and citizen groups, has successfully promoted a major pedestrian network to unify four large privately developed complexes with Tulsa's Downtown Civic Center. Through its Director of Community Development, the city has elevated land-use policy and future growth patterns to a high level of municipal concern. Closely tied to this has been a restructured budgetary system which anticipated the Community Development Block Grant Program.

WASHINGTON, D.C.

Addressing the development impacts of its 41 future subway stations, the city's small planning staff has identified features and measures critical to future private investments. Using a "fire-fighting" approach, the District of Columbia has done better than most other U.S. cities in protecting itself from ill-considered station locations, speculator abuses and lost opportunities for joint development of transit stations.

Innovations in environmental design in these 10 cities are predicated on assumptions that:

- We are beginning to look at our built environments in a new way.
- We have the talent and the precedents required to improve city building.
- Traditionally and narrowly-conceived, single-purpose public works, city planning, and capital budgeting functions can and must interact.
- Private capital and community involvement are essential ingredients in decisionmaking.
- Whatever the distribution of specialists concerned with the many facets of environmental design in local governments, they must have a mandate to cut across agency lines.

City governments have to use all resources at their disposal—both private and public—to reap maximum benefits from their investments in development.

Energy conservation, the strengthening of cultural roots, an enhanced quality of life and more livable residential environments are but a few of the by-products of a deliberate approach to environmental design. The practices of public administration, of public works and even of city planning are diminished without environmental design and its viable institutionalization within local government. At issue is the need to secure a more humane and efficient means of getting on with the rebuilding of our cities. A decade ago the talent and the techniques were lacking. This is no longer an excuse.

Note:

Mr. Euston is Urban Design Program Officer, HUD Office of Environmental Quality. This article is reprinted from *HUD Challenge*, August, 1975.

APPENDIX G

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