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of Contemporary  
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Urban Design Plans**

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# **THEORY AND PRACTICE OF CONTEMPORARY URBAN DESIGN: A LOOK AT AMERICAN URBAN DESIGN PLANS**

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## **ABSTRACT**

This paper studies the field of urban design in the United States and assesses how it is changing, primarily through study of urban design plans. The research examines the goals, environmental quality concerns, analytical content, analytical methods, degree and type of public involvement, implementation techniques, theoretical foundations, and impacts of 70 urban design plans for 40 towns and cities in the United States prepared between 1972 and 1989. Comparisons are made with similar plans prepared between 1960 and 1972. Recommendations are made for education and professional practice.

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## **THEORY AND PRACTICE OF CONTEMPORARY URBAN DESIGN: A LOOK AT AMERICAN URBAN DESIGN PLANS**

Michael Southworth, University of California at Berkeley

Urban design as a distinct specialty within city planning developed rapidly in the 1950s and 60s in response to the federal urban renewal program. Since then many American cities have prepared urban design studies and plans that have attempted to go beyond traditional planning concerns, such as land use and transportation, to deal with the character and quality of the large scale environment. Many of the goals and methods of urban design today are a response to the failures of urban renewal projects that often demolished too much of the city, leaving a barren urban landscape with no sense of place or community. Designers and planners had been oblivious of the human values imbedded in the old city. However, in more recent years plans have generally demonstrated more concern for user needs, pedestrian access, preservation and reuse, and for ways to increase the identity and character of communities. Although individual project design continues as one central activity of urban design, in other cases it has focussed more on managing the quality and character of large areas through policies, standards, and design review; the development of such policies and standards is becoming an important role of the urban designer. Another urban design concern has been identification of the

assets of environments--buildings, spaces, views, qualities, objects, activities, or thematic elements--that should be maintained and built upon in future planning and design. In contrast to work done during the urban renewal era, "urban design" activity is no longer solely focussed on city centers--small towns, suburbs, rural communities, vacation communities, even state and national parks have found the goals and methods of urban design useful in analyzing visual quality and the needs of various user groups, as well as in solving problems of growth management and economic development. Indeed, so much "urban design" activity now occurs outside central cities that one wonders whether the field should be renamed.

## **The Study**

This research examines 70 urban design plans and studies of 40 towns and cities (and one island) prepared in the United States between 1972 and 1989 and follows on a previous study that examined plans from the early "urban renewal" era of urban design (1960-72).<sup>1</sup> The main purpose of the research has been to evaluate the field of urban design and to assess how it is changing, primarily through study of urban design plans. Certainly, plans are only a part of the planning process. The effectiveness of any plan depends upon day-to-day administration of planning and development activity, the actions of other city agencies, and support by the community and elected officials. But plans are a key document that records the values, intentions, and methods for managing an environment; without a graphic and written plan available for public scrutiny large scale planning cannot take place.

Over 200 towns and cities across the country were contacted to obtain copies of urban design plans done from 1972 to the present. The focus of the research has been on urban design plans that deal with the larger scale environment such as a district, entire city, or metropolitan region rather than smaller projects. Urban design is defined here as that branch of city planning that focuses on the analysis, design, and management of environments with particular attention to the experiential qualities of place. It addresses the environmental needs of various groups of users in terms of how they perceive, value, and use places. Although general plans, comprehensive plans, or land use plans are an important part of city planning, they have been excluded from this analysis. A land use plan is an important ingredient in managing environmental quality, but without a solid urban design plan, there is no guarantee that the land use plan will maintain or improve that quality. In "general plans," although they may contain an urban design component, that component is typically vague and based on minimal analysis. The plans analyzed here all make a serious attempt at analyzing and managing environmental quality as it will be experienced by typical users.

Plans were analyzed using content analysis techniques in terms of (1) the explicit goals of the plan, (2) environmental quality concerns, (3) analytical content, (4) analytical methods, (5) degree and type of public involvement, (6) implementation techniques, and (7) theoretical foundations. A survey was also conducted to evaluate the current status of the plans and their impacts to date.

In the earlier study of plans from 1960-72 only 12 cities submitted large scale urban design plans.<sup>2</sup> In this study, however, it appears that many more urban design plans at larger than project scale have been prepared. Of the 138 plans

and reports submitted, 70 plans representing 40 cities and towns satisfied the research requirements.<sup>3</sup> Roughly one-third of these deal with the entire city or town and two-thirds focus on specific districts or sections of the city. Many plans focus on commercial districts, either to promote new development or to control it. Some deal with key elements of the city such as a river, a street, public open space or signs. While some plans focus on preservation and reuse, others are concerned with pedestrian access and amenity. The format for the plans is varied. Some consist of multi-volume reports with intensive research documentation, some are presented as design guidelines, two are in the form of large single sheet posters, and one was written as a Sunday newspaper supplement for wide public distribution. The range of concerns and approaches is encouraging.

In contrast to the first wave of urban design plans prepared largely during the 1960s, the plans in this more recent group are more focussed and sound technically, but are often less exploratory. Those done in the early 1970s show more concern with ecology and the natural environment and with community participation than do the plans from the late 1970s and 1980s.

### **Goals of Urban Design Plans**

This research reveals that many cities consider urban design to be good for business and link urban design with economic development. Cities desire to improve their image so that people will want to invest, shop, and work there. Thus, goals of two-thirds of the plans in the study group are directed toward economic revitalization and development. Jim Thorpe, PA, for example, did intensive economic and transportation analyses as part of a plan to preserve its

architecture and urban character and to promote economic development through tourism.<sup>4</sup> Historic preservation was seen as a means to attract tourists. This economic focus was totally absent in the urban design plans of the 1960s.

A second and related common goal is to manage development to maintain quality and character, and to blend the old and new. Inappropriate new development is considered a threat to urban identity and livability. Thus, many plans seek to identify places of special character or meaning that need protecting. Other common goals in the plans are to improve the city's image; to conserve natural features; to provide new and diverse open spaces; to promote public/private cooperation and communication; to provide affordable housing; to improve safety, health, and comfort; and to resolve circulation problems.

### **Environmental Quality Concerns**

While it is often thought that urban design is primarily concerned with "esthetics", it is apparent, based on this analysis, that urban design today deals with many other environmental qualities, as well. When analyzed, much of that vague "esthetics" breaks down into environmental qualities that are basic human needs, for example the need to be oriented in space and time, to find one's way about, to differentiate one place from another, to travel comfortably on foot, to find relief from the din of traffic, or to find public spaces for rest and conversation.

Over 250 specific environmental qualities are mentioned in the plans.<sup>5</sup> (Table 1) These fall into several clusters: (in order of decreasing frequency of mention) Structure and Legibility, Form, Comfort and Convenience, Accessibility, Health

**Table 1: ENVIRONMENTAL QUALITY CONCERNS  
OF RECENT URBAN DESIGN PLANS/1972-87**

Qualities are ranked in decreasing frequency of appearance as concerns in the plans.

(percentage of cities concerned with each quality in their plans)

| <b>1. STRUCTURE, LEGIBILITY</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>70-80 %</b>                    | sense of place; unique identity, identity of public buildings/ strong district and neighborhood character; identity; conformance with local vernacular/ maintenance of character, residential character; improved character                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>50-60 %</b>                    | vistas and overlooks, views to hills, views to bay, lake, ocean; view corridors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>30-40 %</b>                    | continuity of streetscape, related visual elements; continuity of form; harmonious architectural quality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>20-30 %</b>                    | expression of natural setting; enhancement of natural form; vivid landscape image/ connections among districts and city/ visual linkage to improvements; logical visible framework of public facilities/ public signing; clear, low profile signs, signing suited to casino district, historic marker signing/ vehicular and pedestrian information/create gateways, sense of arrival, dramatic approaches/landmarks, visual orientation                                                                                                                                                                                                                                                                                        |
| <b>10-20 %</b>                    | clearly defined routes for pedestrians and vehicles/clear form, form related to use/definition of boundaries; transition between land uses; buffers; treatment of interface between commercial and residential                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>&lt; 10 %</b>                  | strong land-water relationship/ expression of working waterfront/ historic, old town character/transitional elements between land and water/ sense of time/ skyline form/clarity of progression of spaces; rhythm of streetscape/visibility of downtown/ easy-to-find downtown/relation between city and natural surroundings/ relation between downtown and surrounding districts/ orientation of trail users                                                                                                                                                                                                                                                                                                                  |
| <b>2. FORM</b>                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>50-60 %</b>                    | human scale, pedestrian scale/ appropriate scale of buildings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>10-20 %</b>                    | defined street corridor and open spaces, sense of enclosure/ visual quality of streetscape/richness, visual interest, spatial complexity, variety of experiences/ positive ambience, attractive image                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>&lt; 10 %</b>                  | texture/ architectural merit/ limit views of ridgetop development/ mountainside development; limited ridge and shore development/ dramatic form; dramatic outdoor spaces/balance of clutter and sterility; reduced clutter/ landscaping/ screened parking lots and unsightly nuisances/ innovative architecture/ contemporary character/informal cityscape/ natural beauty/ visibility of water/ explorability, discovery, mystery/delight and pleasure/ light and shadow/ color, light; attractive night lighting/ esthetic balance; order and balance; spatial proportion/ urban streetscape character/ buildings as backdrops to public space/ visual experience of trail users/ spatial resolution of intersections/ beauty |
| <b>3. COMFORT AND CONVENIENCE</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>40-50 %</b>                    | comfortable microclimate; protection of pedestrians from inclement weather/ street amenities; pedestrian convenience; bus shelters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>30-40 %</b>                    | reduced noise                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>10-20 %</b>                    | solar access/ control glare/ comfortable open space/ livable neighborhoods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>&lt; 10 %</b>                  | sun and shade/ adequate day light/ prevention of heavy winds/ maintenance of light breezes/ opportunity for escape from urban intensity/ minimal urban dome effect/ odor control/ quiet and peaceful hiking trails/ quiet, safe, clean, affordable neighborhoods                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>4. ACCESSIBILITY</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>50-60 %</b>                    | pedestrian access, pedestrian orientation, pedestrian explorability                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>20-30 %</b>                    | accommodation of traffic & parking/ accessible open space, access to shoreline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>10-20 %</b>                    | reduced congestion, efficient traffic flow/ access for all (motorists, pedestrians, bicyclists)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>&lt; 10 %</b>                  | access by public transit/ bicycle access/ pedestrian routes linked with parking/ mixed modes of transportation/ mall and downtown linked with community/ expanded, efficient transportation network/ access to parking/ freedom of movement along trails                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>5. HEALTH &amp; SAFETY</b>     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>40-50 %</b>                    | safe public ways, pedestrian/ bicycle safety; reduced pedestrian-vehicle conflicts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>20-30 %</b>                    | safety                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>10-20 %</b>                    | reduced air pollution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>&lt; 10 %</b>                  | parking/ night lighting for safety/ prevention of unhealthful noise impacts/ health/ structural safety/ rodent & pest control; garbage removal/ safe neighborhoods/ seismic safety/ night lighting/ safe play areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| 6. HISTORIC CONSERVATION |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 30-40%                   | preservation, continuity with past, awareness of heritage                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 20-30%                   | preservation of architecturally important buildings; historic buildings as resources for education and recreation                                                                                                                                                                                                                                                                                                                                                                     |
| 10-20%                   | expression of history; communication of cultural significance                                                                                                                                                                                                                                                                                                                                                                                                                         |
| < 10%                    | avoidance of fake history, maintenance of original condition as much as possible/ avoidance of historical confusion/ creation of authentic character of a small pre-1940 southern town/ protection and access to ancient ways (paths)                                                                                                                                                                                                                                                 |
| 7. VITALITY              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10-20%                   | economic vitality/ street level interest; pedestrian liveliness/ vitality/ creation of sense of urbanity downtown, maintenance of downtown vitality                                                                                                                                                                                                                                                                                                                                   |
| < 10%                    | visible activity; visible light mfg/ sense of life, excitement/ concentrated retail activity/renewal of major centers/ day and night activity/ people-generating uses/ intensive use of public rights-of-way                                                                                                                                                                                                                                                                          |
| 8. NATURAL CONSERVATION  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 20-30%                   | preservation of outstanding natural features/ provision of undisturbed natural surroundings; preservation of the valleys, hills, canyons; maintenance of rural character                                                                                                                                                                                                                                                                                                              |
| 10-20%                   | water quality; maintenance of ground water level; maintenance of drainage systems; flood control; runoff and erosion control/ conservation of energy                                                                                                                                                                                                                                                                                                                                  |
| < 10%                    | control of pollution/ avoidance of overload on resources/ fire control/ reduced bay fill/ perpetuation of variety of plant types; protection of endangered species/ water conservation/ planting suited to climate                                                                                                                                                                                                                                                                    |
| 9. DIVERSITY             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10-20%                   | mixed land uses/ diversity of users and activities                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| < 10%                    | variety of activities downtown; diversity of business types/ range of goods and services/ range of job opportunities/ cultural & economic diversity/ diversity of form, environments/ age and economic diversity                                                                                                                                                                                                                                                                      |
| 10. CONGRUENCE/FIT       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10-20%                   | relation between old and new                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| < 10%                    | density of development related to access capacity/ use of familiar, native materials; awareness of earth materials/ design vocabulary suited to environment/fit between housing stock and residents/ activities related to historic uses/ fit between form and use of buildings/ relation to character of small southern towns/ relation between indoor and outdoor space and form/ fit of transit line to context/ new development compatible in scale, proportion, design character |
| 11. OPENNESS             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10-20%                   | adequate open space; usable open space                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| < 10%                    | creation of new open spaces, vest pocket parks/ enhancement of open spaces/ public amenities in open space/ provision of fine grained pattern of openness in densely developed areas/ open shoreline; restoration of bay to people/ maintenance of peaceful uncrowded character; maintenance of wild and open spaces/ integration of open space with residential areas                                                                                                                |
| 12. SOCIABILITY          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 10-20%                   | gathering places, social places/ sense of community                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| < 10%                    | opportunities for social interaction/ play areas/ person-to-person sales of produce                                                                                                                                                                                                                                                                                                                                                                                                   |
| 13. EQUITY               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| < 10%                    | equitable sharing of city's assets/ needs of residents and tourists balanced/ housing for all socio-economic groups/ improved quality of public environment/ flatter social gradient                                                                                                                                                                                                                                                                                                  |
| 14. MAINTENANCE          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| < 10%                    | low maintenance vegetation/ centralized maintenance/ maintenance of parks/ maintenance of vacant lots/ durable materials                                                                                                                                                                                                                                                                                                                                                              |
| 15. ADAPTABILITY         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| < 10%                    | flexibility to accommodate a variety of uses/ ability to change over time/ management of rapid change/ flexibility in use of plazas and open spaces                                                                                                                                                                                                                                                                                                                                   |
| 16. MEANING              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| < 10%                    | "confidence building" public projects/ ability to take on meaning for a range of people/ consideration of the meaning of the environment to people                                                                                                                                                                                                                                                                                                                                    |
| 17. CONTROL              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| < 10%                    | empowerment, control to citizens/ ownership and maintenance of trails                                                                                                                                                                                                                                                                                                                                                                                                                 |

and Safety, Historic Conservation, Vitality, Natural Conservation, Diversity, Congruence or Fit, Openness, Sociability, Equity, Maintenance, Adaptability, Meaning, and Control.<sup>6</sup> Over 40 percent of the total environmental quality "mentions" deal with the traditional urban design concerns of Structure, Legibility, and Form. Specific quality concerns relating to sense of place, identity, views, and human or pedestrian scale are frequently mentioned in at least half of the plans. Concerns with Comfort and Convenience, Accessibility (especially pedestrian access), and Health and Safety also occur in at least half of the plans. Concerns with Historic Conservation, Vitality (economic and social), and Natural Conservation follow, with mentions in 20-40 percent of the plans. It is noteworthy that nearly half of the plans are concerned with creating comfortable microclimates and in reducing noise.

Infrequently mentioned qualities include Sociability, Equity, Maintenance, Adaptability, Meaning, and Control. In general, the social and communication functions of urban space receive little attention in the plans. Although substantial research has now been done in this area, it appears not to have had much impact in practice, at least for the plans studied. One explanation may be that the education of architects, planners, and urban designers does not emphasize applications of social factors to design at the urban scale. Rather, it may focus on theory and on architectural scale applications.

The rank order of environmental quality concerns is surprisingly similar for the 1960-72 and 1972-1989 study groups despite a time span of nearly three decades. An exception is Historic Conservation, which appears in sixth place as a major concern in the more recent group, whereas it is rarely mentioned in the 1960s group. No doubt this is because the preservation movement expanded

rapidly in the 1970s in response to new tax incentives, as well as the visible consequences of massive urban renewal in the previous decade. Another difference is that Health and Safety has moved from twelfth place to fifth place. A major concern here is with protecting pedestrians and bicyclists from the automobile. This shift, too, may result from the effects of automobile dominated urban renewal planning of the 1960s and shifts from public transit to the automobile.

### **Analytical Content and Methods**

Responsible urban design is based on a systematic analysis of the environment and the way it is used and valued. Unlike a work of art and some works of architecture, urban design cannot be the intuitive vision of a single creator. A city is a complex form, created over long periods of time by many actors who have diverse and often conflicting motives. Part of the art of urban design is to identify the environmental needs of these diverse user groups and to then evaluate how well the environment is working and how it might be improved for them. What are the cherished qualities and features? Where is there poor fit between the form of a place and its users? A good analysis helps answer such questions and directs design and policy making.

One-fifth of the post-1972 plans include no explicit analysis whatsoever, and the basis for recommendations and policies is often unclear. When analysis was done, what did cities choose to analyze? Analyses of Land Use and Transportation are the most prevalent type and exhibit a wide variety of specialized concerns, from pedestrian and vehicular circulation or floor area

ratios to parking supply and demand, or open space location. These are followed in frequency by analyses of Architecture, Streetscape, and Open Space including such elements as architectural character, building type and conditions, street patterns, view corridors, and critical skylines. Other types of analyses were Socio-Economic Factors, User Perception and Behavior, Natural Factors, and History. (Table 2) (Figs. 1, 2,3)

In contrast to the plans of the 1960s, this more recent group demonstrates a serious concern with pedestrian circulation. Many cities did pedestrian analyses including Cleveland, Kansas City, Los Angeles, Oakland, and Portland. Types of analyses include: pedestrian volume at various times of day, congestion, pedestrian auto conflicts, routes, sources of flows, width of sidewalks, sidewalk conditions, walking distances, how pedestrians use sidewalks, and quality of the walking experience. (Fig. 4) The excellent *Martha's Vineyard Byways Study* looked at all of the island's trail systems--hiking, horseback riding, and bicycle--to find ways of protecting and enhancing them, making them safer, as well as expanding them.<sup>7</sup>

A striking difference appears in the area of User Perception and Behavior. In the 1960s two-thirds of the cities did staff image surveys and one-half did citizen image surveys, based on the technique developed by Kevin Lynch in *Image of the City*<sup>8</sup>. In the recent group, however, few (less than 10 percent) did image surveys of any kind; exceptions are those studies Kevin Lynch himself or his students worked on, i.e. Martha's Vineyard and San Diego, as well as Santa Fe. (Figs. 5, 6) Why is this? Is the 'image map' out of style or is planning more elitist now and less interested in citizen input? Or is it because funds are more limited? A more likely answer is that the technique has not been absorbed into planning

| Table 2: ANALYTICAL CONTENT                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (percentage of cities doing various analyses) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| LAND USE AND TRANSPORTATION                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 30-40%                                        | Land use; ground floor and upper floor; office construction; use of land forms<br>Traffic circulation & parking; volume                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 20-30%                                        | Pedestrian circulation; volume; sources; pedestrian routes; trails                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 10-20%                                        | Floor area ratios<br>Parking supply and demand<br>Open space location, undeveloped public land                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <10 %                                         | Location of public facilities<br>Public property<br>Bridge safety<br>Transit pattern<br>Visitor attractions & lodging<br>Lot size and ownership<br>Pedestrian distance between activity centers<br>Inventory of street utilities<br>Pedestrian behavior<br>Infrastructure capacity<br>Housing characteristics (quality, size, occupancy, location)<br>Transit ridership, capacity<br>Vehicle occupancy rates<br>Sidewalk and street widths<br>Deficient loading space<br>Impact of light rail on suburban intersections<br>Major shopping<br>New major office development<br>Density<br>Water supply, utilities<br>Total dwelling units<br>Locations of parks, bikeways, trails, scenic parkways<br>Problem intersections<br>Parking and circulation problems<br>Effect of FAR on activity generation<br>Growth projections and current densities<br>Pedestrian congestion<br>Inaccessible places<br>Pier Conditions<br>Spatial/functional organization of downtown activity centers<br>Potential building sites<br>Existing conditions, possible improvements<br>Energy supply<br>Impacts of development on landscape types<br>Effects of past land use policy<br>Zoning/height limits<br>Legal tools for protecting trails |
| ARCHITECTURE, STREETScape AND OPEN SPACE      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 10-20%                                        | Streetscape and landscape; character of streetscape (lighting, paving, signing, fences, etc.)<br>Street conditions; walks, stairways<br>Architectural character<br>Quality of streetscape                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <10 %                                         | Building conditions<br>Building types/architectural types<br>Courtyards and plazas<br>Residential character<br>Building heights<br>Arcade locations<br>Existing street improvements<br>Street patterns<br>Surface and detail of buildings (color, material, style)<br>Trees, walls (light and shade, density, type, height)<br>Streets (width, slope, alignment)<br>Landmark building locations<br>Signs<br>District character<br>View corridors<br>Needed facade improvements<br>Photo surveys of good and bad arch. design<br>Open space quality<br>Significant buildings; architectural quality<br>Visual quality<br>Critical skylines and shorelines<br>Landscape districts; types of road landscape<br>Location of gateways                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| SOCIO-ECONOMIC FACTORS       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 10-20%                       | Population; population change; projections<br>Market analysis; change in retail/commercial activity<br>Needs of existing businesses                                                                                                                                                                                                                                                                                                                                                                           |
| < 10%                        | Business types<br>Economic analysis; demand for various type of space<br>Seasonal recreation activity<br>Land values<br>Employees per block, employee density<br>Socio-economic characteristics<br>Fiscal impacts<br>Land values<br>Economic benefits of tourism to region<br>Costs/benefits of alternative plans<br>Linkage (of people)<br>Forces directing change                                                                                                                                           |
| USER PERCEPTION AND BEHAVIOR |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 10-20%                       | Noise exposure<br>Views, view orientation<br>Imageability<br>User behavior and attitudes; use of region; preferred places; most frequented places<br>Road experience; traffic experience; scenic route framework                                                                                                                                                                                                                                                                                              |
| < 10%                        | Use of open space (type, amount)<br>Variations in open space use as function of age, sex, weather, time of day, location, direction of travel, group size<br>Visitor needs<br>Critical open space use hours/critical sunlight times<br>Impact of wind/sun on comfort<br>Walking experience<br>Livability survey<br>Sense of continuity, movement, rhythm, sequence<br>Plan's contribution to 'sense of community'<br>Relations between mode of travel, perception, use and design of trails<br>Noise contours |
| NATURAL FACTORS              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| < 10%                        | Topography<br>Wind<br>Climate<br>Waves, tides, water depth<br>Solar exposure<br>Drainage<br>Prominent natural features<br>Natural setting, natural opportunities and constraints<br>Earthquake faults and epicenters<br>Landslide potential<br>Tsunami hazard<br>Potential flooding areas<br>Hazard prone areas<br>Air quality<br>Environmental hazards                                                                                                                                                       |
| HISTORY                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 20-30%                       | History of place<br>Buildings and sites of architectural and historic interest                                                                                                                                                                                                                                                                                                                                                                                                                                |
| < 10%                        | History of architectural styles                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

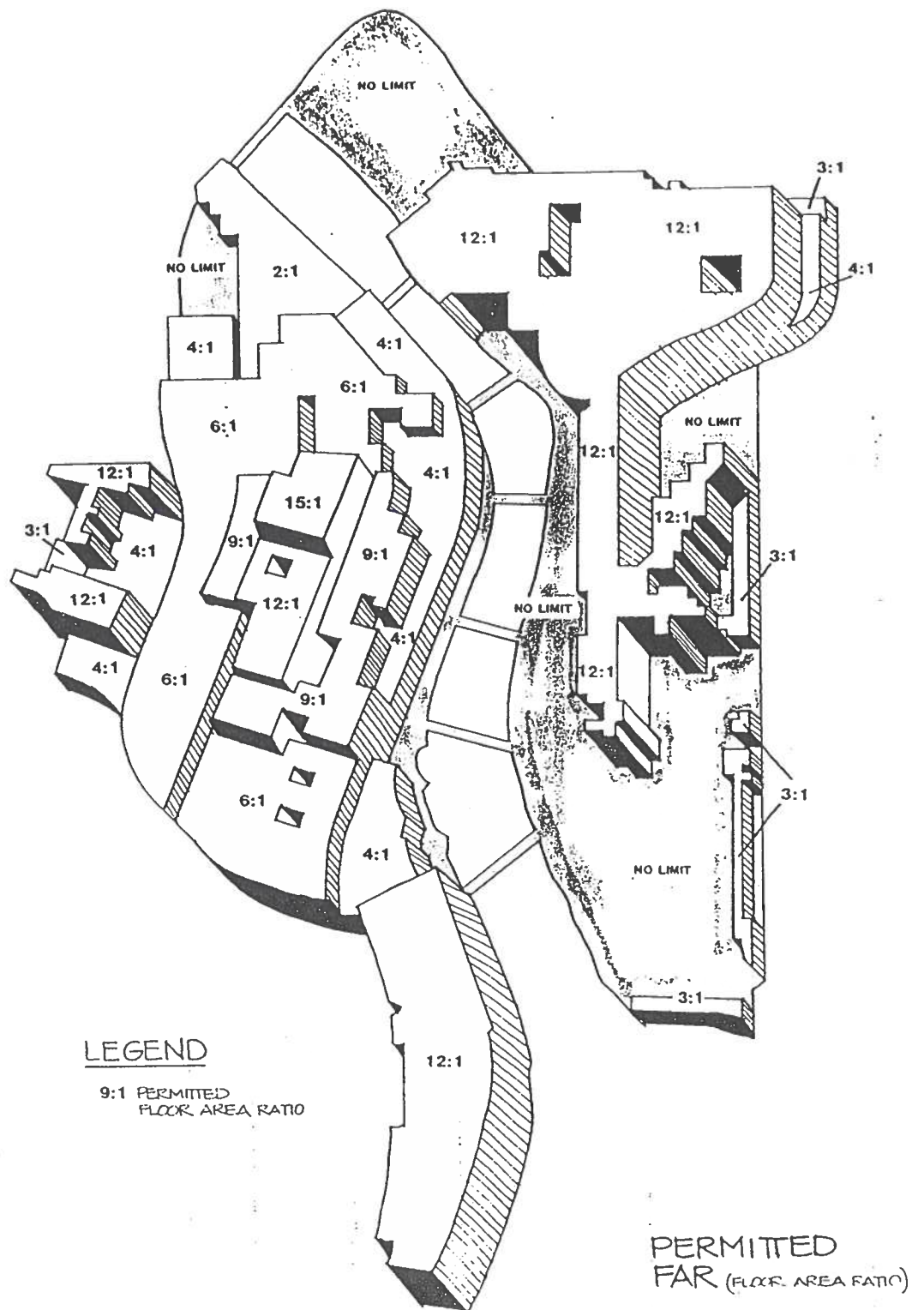


Fig. 1. An axonometric map of permitted Floor Area Ratio effectively communicates what the maximum build-out of central Portland might be. [Bureau of Planning, *Urban Form for the Central City* (Portland, Oregon: Bureau of Planning, 1987)].

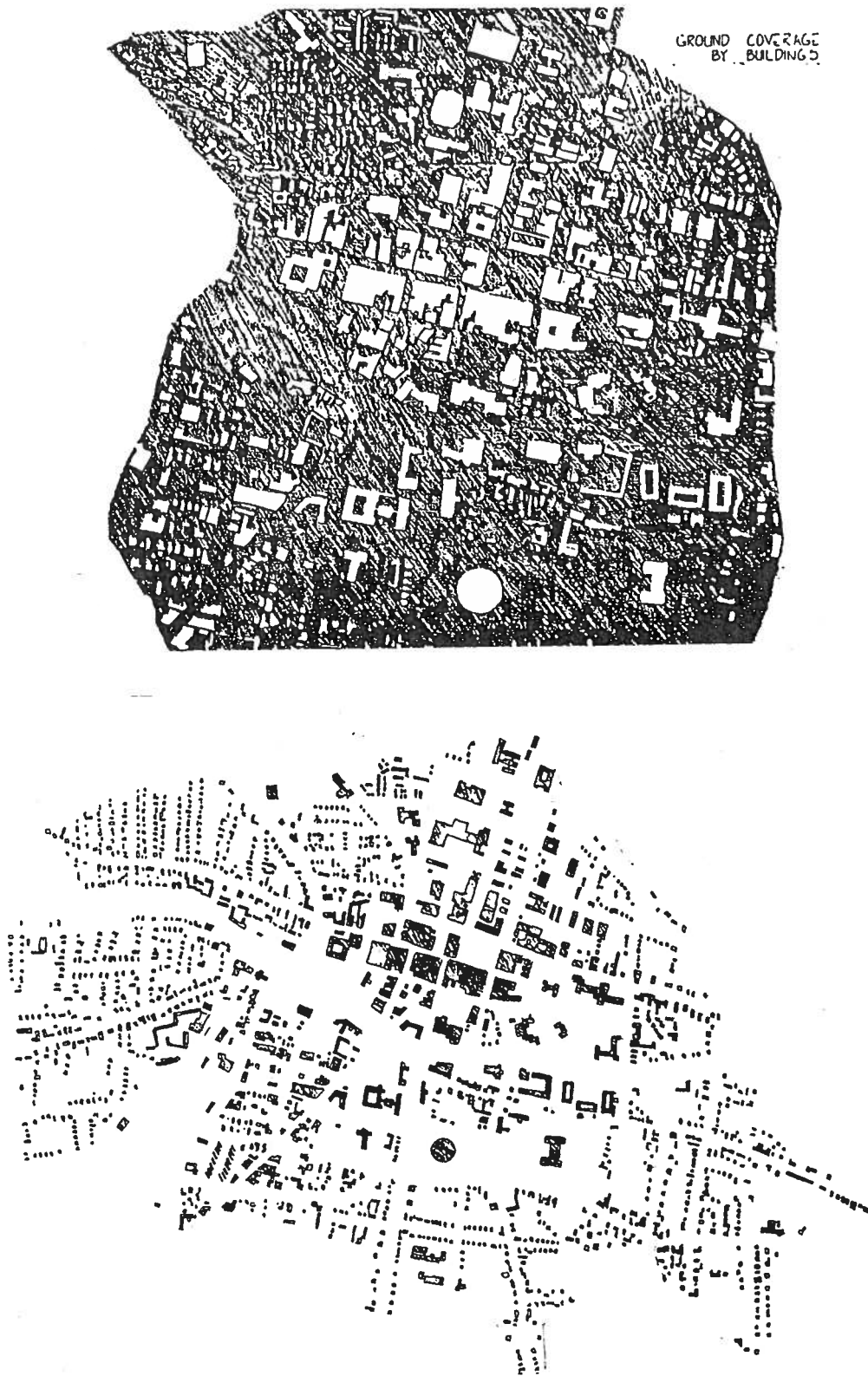


Fig. 2. Simple figure/ground maps of built form and open space convey a sense of the grain of the city and the ratio of open space to built form. [Planning Department, *Santa Fe Historic Structure and Townscape and Design & Preservation in Santa Fe: A Pluralistic Approach* (Santa Fe, New Mexico: Planning Department, 1982)].

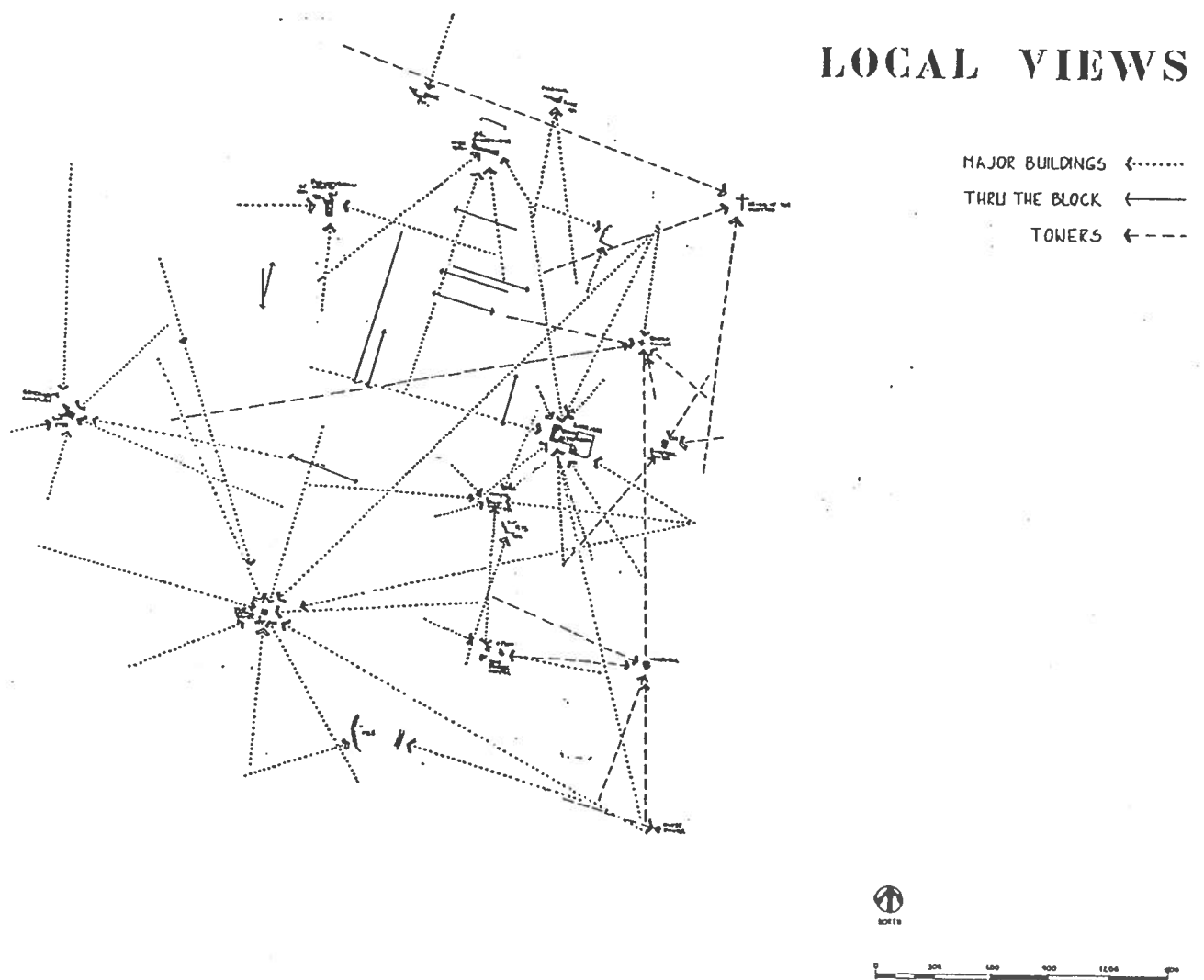


Fig. 3. Mapping of views both within the city and to outside points can be useful in understanding and maintaining the visual structure of the city. [Planning Department, *Santa Fe Historic Structure and Townscape* (Santa Fe, New Mexico: Planning Department, 1976)].

## PEOPLE FLOW

### EUCLID AVE. AT PUBLIC SQUARE

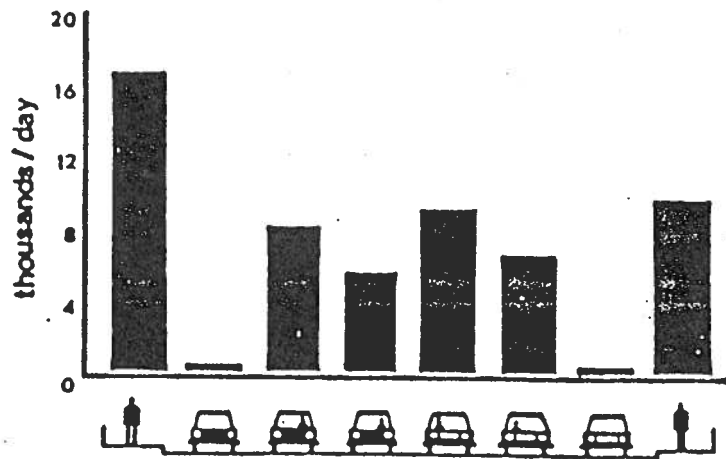


Fig. 4. It is as important to analyze pedestrian flow as vehicular flow in planning for a commercial district. This simple bar chart does both. [Cleveland City Planning Commission, *Euclid Avenue Streetscape Study* (Cleveland: City Planning Commission, 1984)].

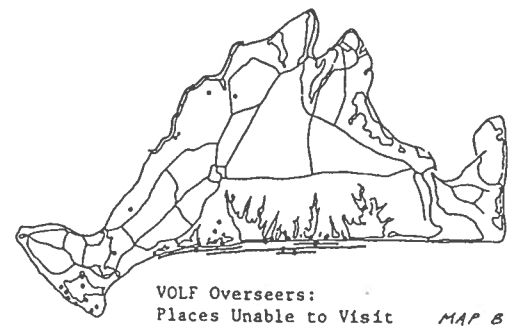
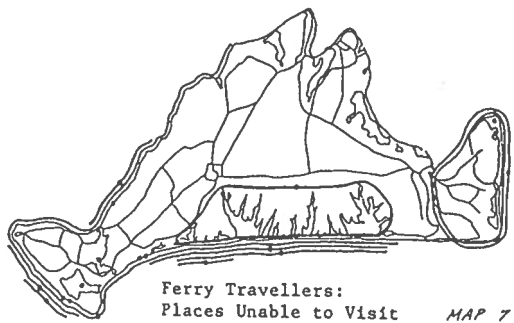
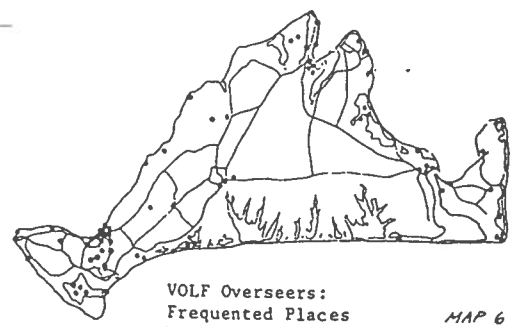
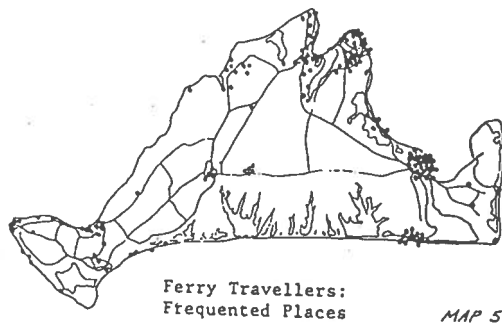
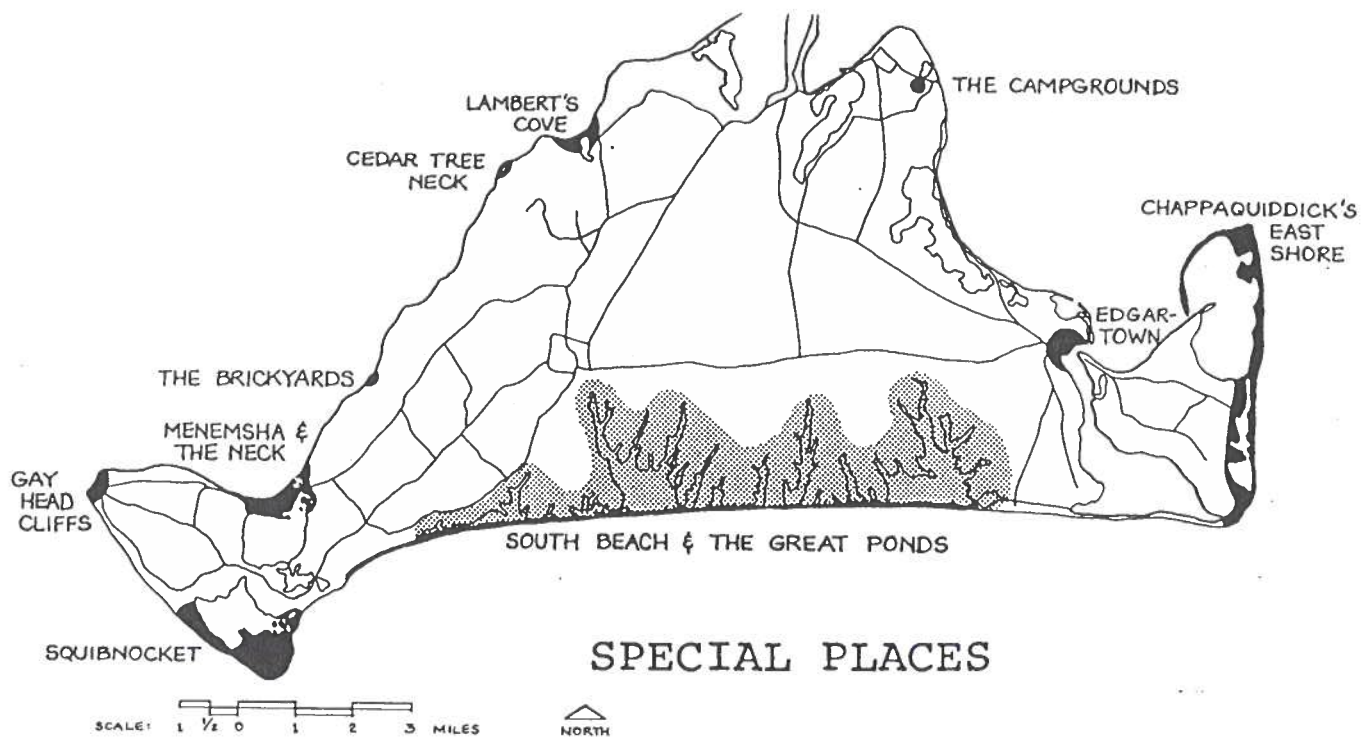


Fig. 5. Every inhabited landscape, urban or rural, has places that are strongly valued by residents and visitors and that need to be recognized in planning and development. Residents and visitors of Martha's Vineyard were surveyed to identify their special places, as well as the places they frequently visit and places they are unable to visit. [Vineyard Open Land Foundation, *Looking at the Vineyard* (West Tisbury, MA: Vineyard Open Land Foundation, 1973)].

education and most urban designers do not know how to do the surveys or how to use the results in planning. Although the image survey technique has numerous pitfalls,<sup>9</sup> when well done they can be a valuable technique for identifying public environmental values and for involving the public in the planning process. They can help identify problems in environmental structure and can be an educational tool to sensitize planners and designers to the places and people for whom they plan.

The most common analytical method continues to be the field survey by professional staff and was used by nearly 40 percent of the cities. (Table 3) Sometimes the surveys were done on foot and in other cases from an automobile. Although a common technique and the backbone of urban design analysis, it is often vague, undefined, and usually unstructured. In a few cases, however, a framework and method were established before doing the survey. A good field survey has clear goals and categories of analysis. It establishes a system for covering the survey area so that all areas receive equal attention. It provides for multiple opinions in subjective analyses to reduce personal biases. (Fig. 7)

Other common methods (used by 20-30 percent of the cities) include photographic surveys; studies of district form in sketches, isometric drawings, models, or photographs; traffic analysis; and interviews with users including attitudes of residents and potential residents, visitors, parkers, bus drivers, users of open space, and pedestrians. (Fig. 8) Less frequently used methods (less than 20 percent) include historic surveys and research, form typologies or landscape units, traffic and parking counts, market analysis, comparative analysis of alternative plans, observation of pedestrian behavior, and image surveys.

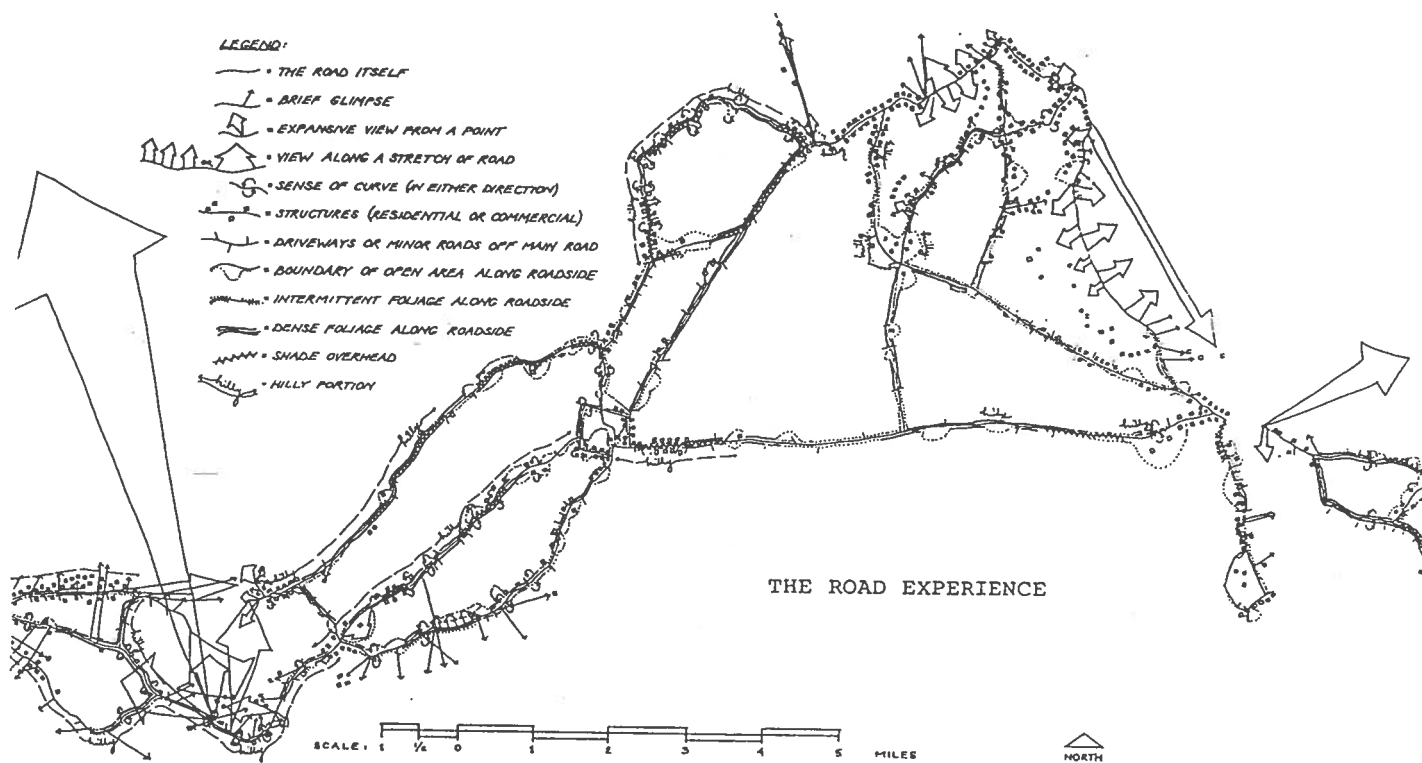


Fig. 6. Roads and other pathways are the way most people experience the large scale environment, and thus warrant separate analysis. This analysis records the character of major roads. [Vineyard Open Land Foundation, *Looking at the Vineyard* (West Tisbury, MA: Vineyard Open Land Foundation, 1973)].

| Table 3: ANALYTICAL METHODS         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (percentage of cities using method) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 30-40%                              | Field reconnaissance, inventory<br>Land use survey (maps, photos, field survey, records)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 20-30%                              | Photographic survey (current, historic)<br>Studies of district form, landscape form (sketches, model, isometric drawings, photography)<br>Traffic analysis; maps<br>User survey, visitor survey, potential residents (interview)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 10-20%                              | Survey of historic structures (field, photo, maps)<br>Form typologies; landscape units<br>Traffic counts; pedestrian counts<br>Parking studies (observation)<br>Historical research (literature)<br>Analysis of existing studies, planning documents<br>Market analysis (literature, interviews)<br>Comparative analysis of alternative plans<br>Sketches of typical street sections, building types<br>Observation of pedestrian behavior<br>Image survey, character (maps, interviews)<br>Natural base                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| < 10%                               | Vacant land, open space (location, characteristics)<br>Architectural studies of buildings (sections, footprints, facades); architectural styles<br>Parking studies (interviews)<br>Pedestrian time-distance to centers<br>Floor space usage/vacancy<br>Survey of businesses<br>Comfort zone analysis<br>Transit use counts, trail user counts<br>Climate studies<br>Interviews with bus drivers, transit managers<br>Interviews with officials<br>Studies of service vehicle use<br>Building inspection reports<br>City owned land (maps, city land records)<br>Case studies of potentials<br>Topography<br>Studies of potential impact of development on landscape units<br>Noise studies<br>Time-lapse film photography<br>Activity mapping, block-by-block<br>Review of good urban design in other cities<br>Mapping of view corridors and view spots<br>Projections<br>Review of traffic standards<br>Questionnaires, telephone surveys<br>Identification of districts<br>Inventories of recent projects<br>Observation of other transit systems |



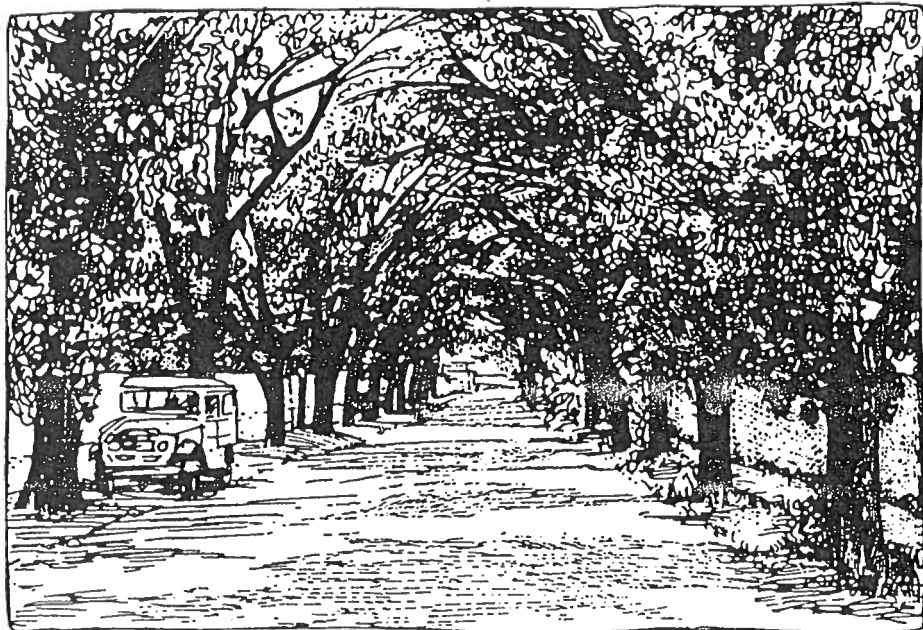
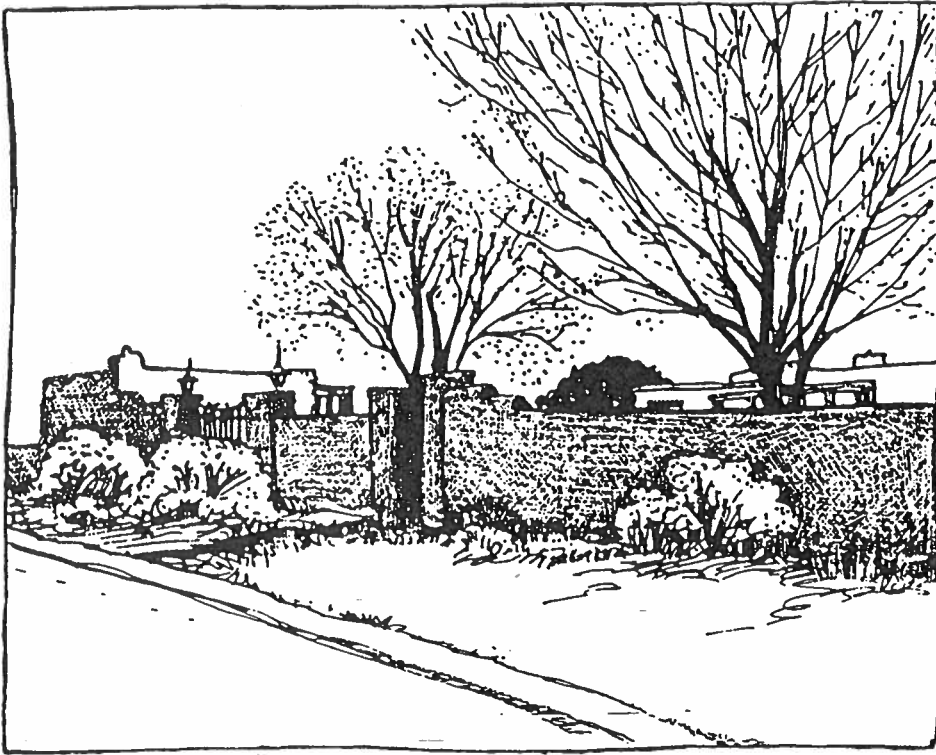


Fig. 8 The vivid sketch is still an unmatched method for documenting the special qualities of places. [Planning Department, *Design & Preservation in Santa Fe: A Pluralistic Approach* (Santa Fe, New Mexico: Planning Department, 1982)].

It is notable that although noise was mentioned as an important environmental quality needing planning attention by nearly 40 percent of the cities, only one city (Oakland) analyzed it (at least in these plans), and none developed design and planning recommendations to deal with it.<sup>10</sup> Noise, primarily from automobiles and aircraft, is an important and growing problem in both urban and suburban areas as traffic volumes increase and development creeps into the countryside. Solutions are difficult, but design and policy research is needed on ways of controlling unwanted sound without creating eyesores such as the monotonous solid masonry walls frequently built along freeways to insulate development from traffic noise.

Environmental simulation, one promising method of urban design analysis, is still rarely used, at least in this study group, although the technology for simulating built form, views, sun, and wind is well developed. Many cities lack the resources to do full scale simulation, yet simple photomontage techniques involve minimal skill and expense. Several cities did simple before/after sketches to illustrate the predicted impacts of change; before/after photographic views can be particularly compelling and informative. Portland and Cleveland mapped proposed view corridors and illustrated the skyline impacts of various buildouts. (Fig. 9) Of the cities represented, only San Francisco, New York, and Philadelphia appear to have used model, video, or computer simulation. Simulation is not limited to visual qualities; San Francisco also uses it effectively to predict the impacts of new construction on the microclimate of public spaces and a building height ordinance is based in part on solar access. (Fig. 10) Even photo montage simulation, which was done in some of the 1960s plans, is rarely used in this group of plans. Of course, development interests that would rather not have the public realize the impacts of proposed projects may view simulation

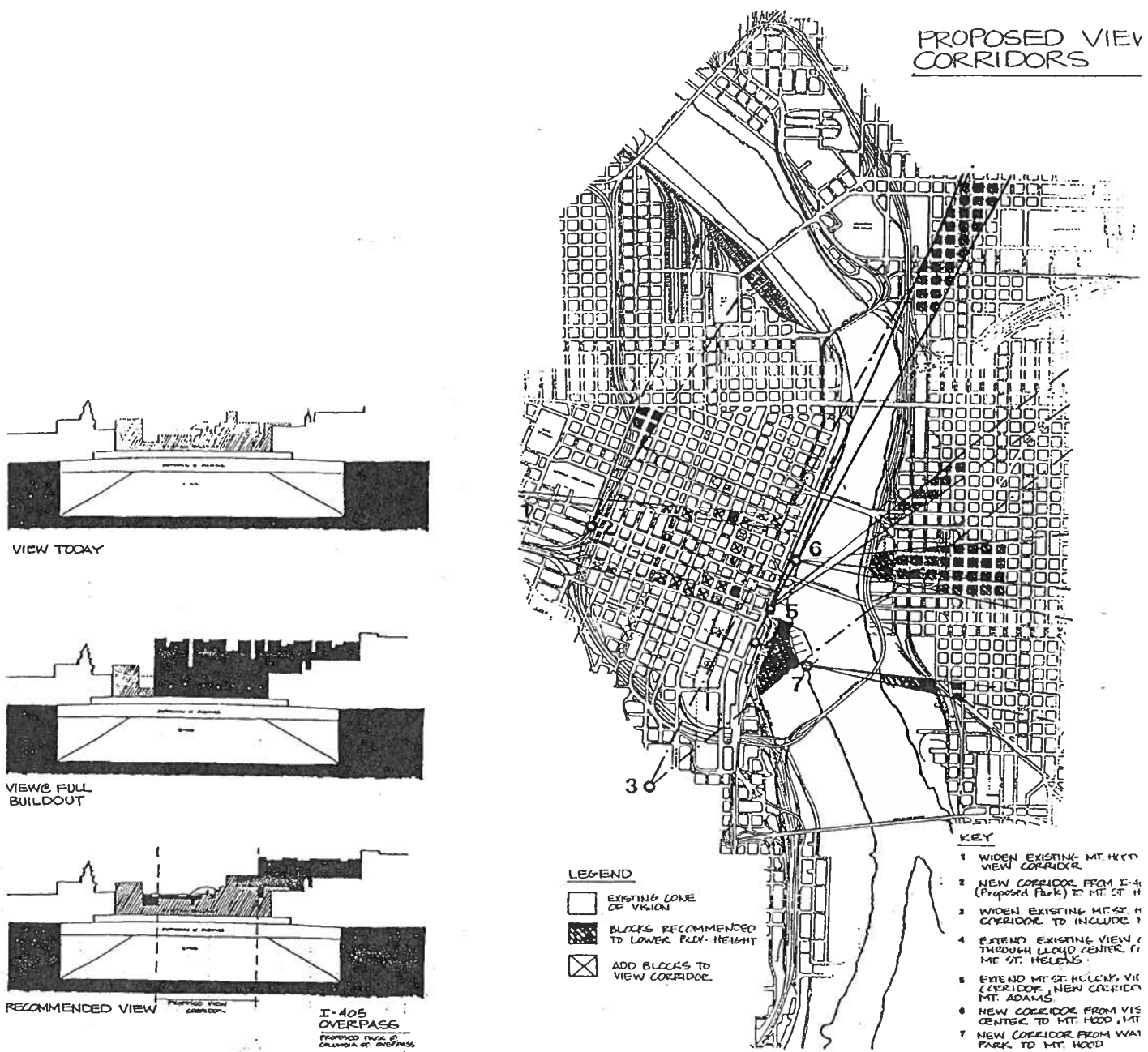


Fig. 9. Here major view corridors to regional landmarks are proposed. Each view corridor is then analyzed in terms of the impact of full buildout on the view. [Bureau of Planning, *Urban Form for the Central City* (Portland, Oregon: Bureau of Planning, 1987)].

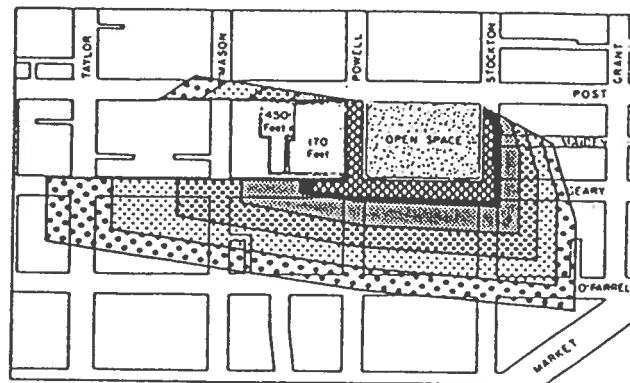


FIGURE 12. UNION SQUARE SOLAR FAN

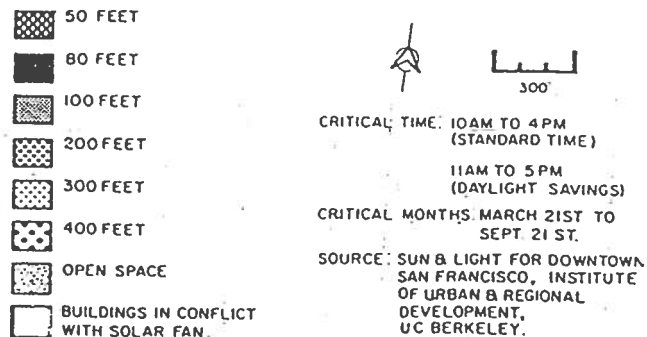


Fig. 10. In San Francisco a computer model has been developed to project the shadow impact of proposed high rise structures on open spaces. The solar fan map shows the maximum height allowable in order that buildings not cast shadows onto Union Square from 10am to 4 pm, March 21 to September 21. [Department of City Planning, *The Downtown Plan* (San Francisco: Department of City Planning, 1983)].

as a threat. The great value of the technique is its ability to communicate the visual impact of environmental change to the public in a very real way.

Several analytical techniques are worth noting in some detail. In addition to block-by-block activity mapping, Eugene, Oregon used time-lapse film photography to track the type, amount, and location of pedestrian use.<sup>11</sup> The Martha's Vineyard study identified major landscape units of the island, based on associated visual, natural, and development characteristics. Each unit was then studied in terms of its sensitivity to development, looking at such factors as density, building siting and form, road and path character, clearing and planting, materials and details, and activities. Policies for managing development were then suggested for each landscape unit. This approach avoids the problems of blanket development policies and integrates the unique natural and cultural features of each landscape type into policy making. (Fig. 11)

Form typologies are developed in some plans. With the aim of creating a harmonious but not "inauthentic" townscape, Santa Fe analyzed the diversity of form types in the city in terms of massing, openings, overhangs, materials, color, detail, roofs, scale and development standards for each district. The intent is to allow for a range of solutions, allowing design creativity while maintaining harmony with surroundings. The small new community of Seaside, Florida has "typological zoning" which, unlike most zoning ordinances, is easily understood by the layperson. The designers generated a vaguely southern vocabulary of 8 building types for all structures, public and private. Individual builders and developers are then required to work within the vocabulary. One has some choice in color and design details, but setback, height, roof forms, porches, parking, and outbuildings are regulated. Variances are granted solely on the

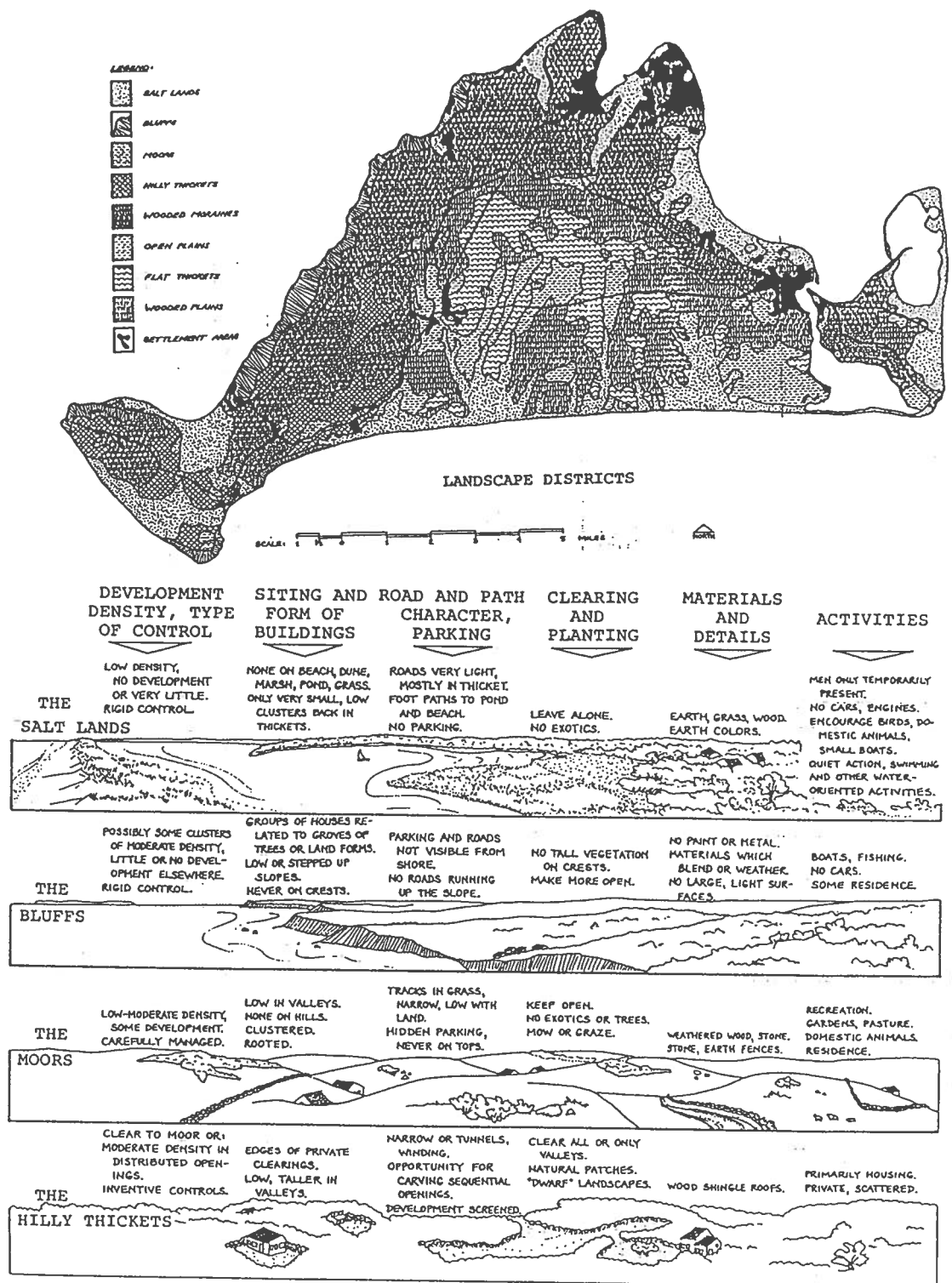


Fig. 11. It is useful to identify areas of cohesive character in both natural and developed areas in formulating policies for development. Here nine different landscape districts are identified. Each district is then analyzed in terms of appropriate types of development. [Vineyard Open Land Foundation, *Looking at the Vineyard* (West Tisbury, MA: Vineyard Open Land Foundation, 1973)].

basis of architectural merit. Unlike the Santa Fe work, the vocabulary is not based on indigenous examples, so however charming the town may be at a glance, it is not "authentic"--it is a low key Disneyland to live in. (Fig. 12)

## **Public Involvement**

Unlike plans of the 1960s, the more recent group of urban design plans had little grassroots involvement. One-third of the cities make no mention of public participation of any kind. In the other cases, participation is typically with business or professional groups or with a citizens' task force. Cost may be a factor in the reduction in participation since participatory planning can be expensive, but changes in political attitude are a more likely explanation. Another reason may be that the business of economic development--the motivation for many of these plans-- may not be seen as something in which the general public needs to be directly involved.

However, there are some notable exceptions. Bellingham, Washington held five day-long workshops to develop plan alternatives; workshops were open to anyone, but also included a task force, a technical committee, and the public. (Fig. 13) Mountain View, California took the council, city manager, and staff on a field trip to Santa Barbara to study the downtown environment produced through a design review process as a basis for its own plan. San Diego did some citizen image surveys, took a citizen resource panel on a regional reconnaissance, and published the plan as a Sunday newspaper supplement to obtain "write-in" comments from citizens.<sup>12</sup> Boston held a series of well-publicized public forums to inform the public and obtain public feedback on important planning issues.

URBAN CODE • THE TOWN OF SEASIDE

| DEFINITIONS                                                                                                                                                      | TYPE I<br>Single, rectangular, 4 corners | TYPE II<br>Single, 2 corners | TYPE III<br>Rectangular | TYPE IV<br>Rectangular, 4 corners | TYPE V<br>Single, 2 corners | TYPE VI<br>Rectangular | TYPE VII<br>Rectangular | TYPE VIII<br>Rectangular | SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------|-------------------------|-----------------------------------|-----------------------------|------------------------|-------------------------|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>YARDS</b><br>A. General: Yard is an open space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.                   |                                          |                              |                         |                                   |                             |                        |                         |                          | <ul style="list-style-type: none"><li>1. The yard shall be an open space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>2. The yard shall be an open space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>3. The yard shall be an open space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>4. The yard shall be an open space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li></ul>                     |
| <b>PORCHES</b><br>A. General: Porch is a covered space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.              |                                          |                              |                         |                                   |                             |                        |                         |                          | <ul style="list-style-type: none"><li>1. The porch shall be a covered space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>2. The porch shall be a covered space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>3. The porch shall be a covered space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>4. The porch shall be a covered space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li></ul>         |
| <b>OUT-<br/>BUILDINGS</b><br>A. General: Out-building is a building, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high. |                                          |                              |                         |                                   |                             |                        |                         |                          | <ul style="list-style-type: none"><li>1. The out-building shall be a building, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>2. The out-building shall be a building, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>3. The out-building shall be a building, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>4. The out-building shall be a building, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li></ul> |
| <b>PARKING</b><br>A. General: Parking is a space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.                    |                                          |                              |                         |                                   |                             |                        |                         |                          | <ul style="list-style-type: none"><li>1. The parking space shall be a space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>2. The parking space shall be a space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>3. The parking space shall be a space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li><li>4. The parking space shall be a space, not less than 10 feet wide, and not less than 10 feet deep, and not less than 10 feet high.</li></ul>         |
| <b>BUILDING<br/>HEIGHTS</b><br>A. General: Building height is the height of a building, not less than 10 feet, and not more than 10 feet.                        |                                          |                              |                         |                                   |                             |                        |                         |                          | <ul style="list-style-type: none"><li>1. The building height shall be the height of a building, not less than 10 feet, and not more than 10 feet.</li><li>2. The building height shall be the height of a building, not less than 10 feet, and not more than 10 feet.</li><li>3. The building height shall be the height of a building, not less than 10 feet, and not more than 10 feet.</li><li>4. The building height shall be the height of a building, not less than 10 feet, and not more than 10 feet.</li></ul>                                                                                                     |

Fig. 12. Design guidelines may be expressed graphically using a typological approach. They are easily understood and relate clearly to the built form.

[Andres Duany, Elizabeth Plater-Zyberk, et al., *The Town of Seaside* (n.d., n.p.)].

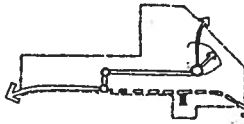
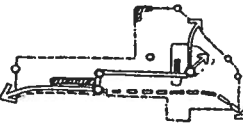
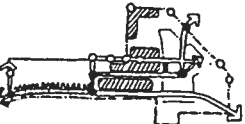
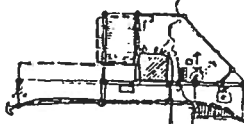
| EVALUATION CRITERIA                                                                                                                                                                                                                     | <br>ALTERNATIVE 1                                                                                                                                                                                                                                                                                                        | <br>ALTERNATIVE 2                                                                                                                                                                                                                                                                                                                          | <br>ALTERNATIVE 3                                                                                                                                                                                                                                      | <br>ALTERNATIVE 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENVIRONMENTAL QUALITY IMPROVEMENT<br><br>IMPROVED VISUAL QUALITY OF STREETScape<br><br>NUISANCES CONTROLLED<br><br>IMPROVED IMAGE AND IDENTITY<br><br>IMPROVED SECURITY AND SAFETY<br><br>IMPROVED MARITIME HERITAGE CENTER DEVELOPMENT | <ul style="list-style-type: none"> <li>• Sign and billboard regulations improve visual quality</li> <li>• Limited improvement to pedestrian access along Holly and within Maritime Heritage Center park</li> <li>• Low potential for nuisance complaints due to industrial image and use</li> <li>• Improvements limited to paint-up/fix-up solutions - some environmental quality improvement</li> </ul> | <ul style="list-style-type: none"> <li>• Improved image and identity with streetscaping along Holly Street and mix of land uses</li> <li>• Improved pedestrian linkages between park and C.B.D. and along Holly</li> <li>• Relocation of Citizen's Dock and mix of land uses reduces potential for nuisances/liabilities</li> <li>• Improved vehicular and pedestrian safety along Holly, Roeder and "C" Streets</li> </ul> | <ul style="list-style-type: none"> <li>• Extensive streetscaping and pedestrian improvements to improve image, identity, security and safety</li> <li>• Industrial uses isolated southwest of Roeder Street to control nuisances</li> <li>• Waterfront center development around railroad depot enhances images of "old town"</li> </ul> | <ul style="list-style-type: none"> <li>• Streetscape improvements along Holly, Astor, Roeder, "D" and "F" Streets - improve identity and pedestrian experience</li> <li>• "Gateway" improvement to Holly Street bridge to enhance sense of entry to area</li> <li>• Extensive pedestrian improvement along creek and within park</li> <li>• Consolidation of light industrial/manufacturing uses between "B", "D" and Holly Streets and the Maritime Heritage Center to control nuisances and improve security and safety</li> <li>• Maritime Interpretive Center within Maritime Heritage Center park</li> </ul> |

Fig. 13. In Bellingham, Washington several design alternatives were developed by a task force of professionals and community representatives. Alternatives were then evaluated according to the criteria. [NBBJ Group, *Bellingham Central Waterfront Development Plan* (Bellingham, WA: Planning and Economic Development Department, 1986)].

Thus, there are many ways of involving the public in the urban design process including public workshops or charrettes, citizens' task forces, public field trips or walking tours of planning areas, citizen image surveys, debate of issues in the media, exhibitions of alternative approaches, and public forums on planning and design issues. Public involvement in the planning process is crucial to the success of a plan. Such involvement is not only important in establishing the goals of the plan but in developing and evaluating alternatives and in obtaining political support. The plan itself should be readable and understandable to the general public, or should at least have a public summary that is free of technical jargon. Most plans, unfortunately, do not make good reading. Although environmental issues are immediate and affect everyone, their impact is somehow dimmed when they are transformed into the planner's vocabulary. As a profession we need to communicate more effectively with the public.

## **Implementation**

Many plans are now more practical and "doable" than the group studied in the 1960s. The link between analyses and recommendations is stronger with more emphasis on implementation capabilities. The urban design plans are also better integrated with other planning concerns. In a technical sense, preservation plans are among the most successful. Here there is a clear idea of what they are trying to achieve and of how to obtain it as in the cases of Santa Barbara, Santa Fe, and Jim Thorpe.

What is implemented by the plans varies from public or public/private projects that are built such as street improvements, new public spaces, or parking facilities, to regulations, design guidelines, recommendations, or review

processes to control development. Many of the plans attempt to develop design review standards. Interestingly, in Santa Fe the tendency seems to be away from specific standards to guidelines because they have found that rigid architectural style regulations have not maintained the character of streets and larger scale places.<sup>13</sup> In the new guidelines they are attempting to deal with problems of inauthenticity, relation of built form to the street, and scale. At the same time, they want to encourage innovation. The new guidelines are designed to manage the *townscape* rather than individual buildings and to accommodate change. A key question in their revised design review process is: Does a project fit the townscape standard? Thus, the design review process requires that proposed changes be evaluated in their context.

### Theoretical Foundations

Not surprisingly, theoretical foundations are rarely explicit in urban design plans; one must infer them from examination of the stated values, types of analyses, and recommendations. One exception is *Boston Tomorrow* (largely drafted by Kevin Lynch) which is unique in the theoretical integration from general values through specific policies.<sup>14</sup> It is derived in part from his thinking in *Good City Form*. Policies relate to 3 basic values: (1) A sense of place and time, (2) Public Safety, Health, and Comfort, and (3) Access. Sets of general policies are then stated for each of the values, and each policy is discussed in terms of its significance and the analyses and specific guidelines that would need to be developed to implement it. Unfortunately, the plan never reached Phase III because of changes in the city government. Whereas *Boston Tomorrow* focussed on the impact of new development on the people who use downtown with the aim of developing performance dimensions, Boston's subsequent *Downtown*

*Zoning* plan sidesteps most of the human issues and focusses on standards for buildings instead.

The vocabulary for urban form that Lynch developed in *Image of the City* (edge, node, path, district, landmark, image, etc.), is used in many of these plans. However, the underlying ideas are largely overlooked except in those plans he or his students had a role in. The idea that designers and planners should examine the conceptions and behavior of those who will use the environment as part of the planning process is not yet widely practiced, if these plans are any indication.

"Townscape" theory (as developed by Gordon Cullen and others) is widely evident in the plans, with concerns for visual character of the street scene, pedestrian amenity, and views. "Functional" theory is apparent in many plans that focus on solving transportation, parking, and land use plans. Several plans with an open space and ecology bent (Martha's Vineyard, San Diego, Santa Fe) seem to follow from McHargian theory or old organic theory. Bits of formalist theory (e.g. Edmund Bacon or Rob Krier) can occasionally be found, as well as notions of the good community derived from Jane Jacobs. Of the many preservation oriented plans, few examine the reasons for preservation and the various philosophies toward it. What should be preserved and why? What stage of a place's past is the one to be preserved? Should historical purity be the aim? Exceptions are Santa Fe and Jim Thorpe, PA which begin to ask questions about authenticity and significance. In sum, the plans are weak in theoretical underpinnings and could have benefitted from rigorous debate of their values and methods.

## Impact of Urban Design Plans

Have these plans had any impact? A survey was sent to all agencies and organizations that submitted plans. The survey covered (1) the current status of the plan, (2) how well the plan achieved its goals, (3) what groups had been the major supporters and opponents of the plan, (4) the professional background of the principal personnel, (5) the major specific results directly attributable to the plan, (6) the most and least successful parts of the plan, and (7) how the plan might have been improved. Planners from 31 of the 40 cities represented in the study responded to the survey. According to them, slightly over half of the plans have been fully adopted and incorporated into the planning process and nearly one-quarter have been adopted in part. None of the plans were rejected by the city. (Table 4) However, it should be noted that the survey results may be biased, since the planners who authored the plan often provided the information.

| Table 4: CURRENT STATUS OF PLANS |                                                                                      |
|----------------------------------|--------------------------------------------------------------------------------------|
| <i>(percentage of plans)</i>     |                                                                                      |
| 55 %                             | The plan has been adopted and has been fully incorporated into the planning process. |
| 23 %                             | Parts of the plan have been adopted and incorporated into the planning process.      |
| 8 %                              | The plan has not been adopted yet but may be adopted in the future.                  |
| 2 %                              | The plan has not been adopted.                                                       |
| 0 %                              | The plan was rejected.                                                               |
| 12 %                             | Other: these were studies that led to specific plans; just a guidebook, not a plan.  |

Slightly over half of the plans are said to have achieved many of their goals, while somewhat more than one-quarter achieved only a few of their goals. About one-sixth are said to have achieved nearly all of their goals. (Table 5)

| Table 5: ACHIEVEMENT OF PLAN GOALS |                                             |
|------------------------------------|---------------------------------------------|
| <i>(percentage of plans)</i>       |                                             |
| 52 %                               | Many of the goals have been achieved        |
| 29 %                               | A few of the goals have been achieved.      |
| 16 %                               | Nearly all of the goals have been achieved. |
| 3 %                                | None of the goals have been achieved.       |

Major supporters of the urban design plans were felt to be political leaders, property owners, developers, local businesses, city agencies, residents, and preservation/conservation groups (ranked in descending order). Major opponents were felt to be property owners, developers, and in some cases, local businesses. Architects were sometimes vocal opponents, as in Santa Barbara, where design standards to control architectural character were developed.

What were the professional backgrounds of the staff who prepared the plans? City planners, architects, and urban designers participated equally in 65 percent of the plans. Landscape architects participated in about one-fourth of the plans, and 11 percent of the plans used lawyers, economists, development consultants, heritage consultants, or citizen committees. (Table 6)

| Table 6: PROFESSIONAL BACKGROUND OF<br>PRINCIPAL STAFF IN URBAN DESIGN PLANS |                      |                                                            |
|------------------------------------------------------------------------------|----------------------|------------------------------------------------------------|
| <i>(percentage of plans)</i>                                                 |                      |                                                            |
| 65%                                                                          | Architects           |                                                            |
| 65%                                                                          | City planners        |                                                            |
| 65%                                                                          | Urban designers      |                                                            |
| 25%                                                                          | Landscape architects |                                                            |
| 11%                                                                          | Other:               | Appointed citizens committees      Development consultants |
|                                                                              |                      | Economists      Lawyers                                    |
|                                                                              |                      | Heritage consultants                                       |

Planners were asked what specific results were directly attributable to the plans. The kinds of things urban design plans actually achieve, in the eyes of planners, is impressively broad. Nearly all of the planners felt community awareness of design and planning issues as well as planning and design options for the community had been promoted. About three-fourths of the plans were

felt to have improved the image of a place, improved street appearance, resulted in adoption of design guidelines or zoning changes, or created pedestrian, landscaping, or other public improvements. About half of the plans created or preserved open space, protected or created views, improved facades, preserved significant structures, or placed controls on building height, bulk, and setbacks. They also improved parking, vehicular circulation, produced new land use plans, resulted in new private development, and promoted tourism. About one-third of the plans were said to have improved the economy, created historic districts, initiated design review procedures, improved safety, improved public transit, or established sign controls. A few plans (less than one-fifth) generated microclimate controls, growth controls, improved bicycle access, and created conservation easements or improved shoreline access. (Table 7)

| <b>Table 7: SPECIFIC IMPACTS ATTRIBUTABLE TO THE PLANS</b><br><i>(percentage of plans)</i> |                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 90 - 100 %                                                                                 | greater community awareness of design and planning issues<br>clarified planning/design options for area                                                                                                                                         |
| 70 - 80 %                                                                                  | improved image of area<br>design guidelines adopted<br>improved street appearance                                                                                                                                                               |
| 60 - 70 %                                                                                  | pedestrian improvements<br>landscaping<br>public improvements<br>zoning changes                                                                                                                                                                 |
| 50 - 60 %                                                                                  | controls on building height/bulk/setback<br>improved neighborhood livability<br>new land use plan                                                                                                                                               |
| 40 - 50 %                                                                                  | open space preserved or created<br>new private development<br>vehicular circulation improvements<br>facade improvements<br>view protection or creation<br>preservation of significant structures<br>parking improvements<br>tourist development |
| 30 - 40 %                                                                                  | improved economy<br>historic district designation                                                                                                                                                                                               |
| 20 - 30 %                                                                                  | historic district ordinance<br>initiated design review process<br>public transit improvements<br>improved safety<br>sign controls                                                                                                               |
| 10 - 20 %                                                                                  | microclimate controls (sun, wind, glare)<br>growth controls<br>improved bicycle access<br>conservation easements                                                                                                                                |
| < 10 %                                                                                     | other: improved shoreline access<br>too early to establish results                                                                                                                                                                              |

In the eyes of the planners, one of the most successful aspects of the plans was creation of specific standards and guidelines for development, not only to evaluate and control development, but to inform developers in advance of actual proposals of what would be acceptable. The plans were often valued because they generated public discussion and established a direction and public consensus; in some cases they were the stimulus for a community education process. Specific improvements were often mentioned as particular successes--streetscape, access to a riverfront, preservation of neighborhoods and open space, facade restoration, or signing improvements.

Planners also commented on what was unsuccessful and what they would do differently. Plans were sometimes criticized because they lacked sufficient citizen involvement. Occasionally plans were made without adequate consideration of alternatives, or detailed planning was done on a weak conceptual base. Growth was anticipated that failed to materialize, making some plans irrelevant. Some plans were too specific to be flexible over time while others were too vague to have any impact and needed specific guidelines and standards. In some cases planners said standards should be simplified and made more specific for easier administration. Occasionally plans did not have the support and cooperation of city agencies and thus had limited impact. Some agencies that had hired consultants to prepare the plan felt that it should have been done in-house or that the consultant should have been managed better.

### **Some Conclusions**

Several major conclusions for education and professional practice may be made from this research. First, a gap exists between theory and practice.

Without a conception of what a good city is and what consequences changes in urban form are likely to have, it is difficult to do meaningful urban design. Practitioners need theoretical grounding--without such a grounding, practice is blind. Urban design education should include a theoretical component and then make the link to practice.

Second, the process of urban design analysis and problem identification is often haphazard and too subjective. Plans are based on problem definitions that are "self-evident" or that primarily express the priorities and idiosyncrasies of the design team. Urban design must develop a methodology of environmental analysis that is more objective and more responsible. An important task for urban design education is in teaching methods for doing field analyses, evaluating user needs, establishing plan goals, and evaluating design alternatives.

Third, urban designers need to obtain more public involvement in plan development, both to understand user needs and values and to build constituencies for urban design. It is not enough to hold one or two public meetings. Designers must learn methods for soliciting community input in the planning process. One valuable but underused communications technique is simulation. Techniques of video and computer simulation need to be taught and promoted and made widely available in order to communicate to the public the likely impacts of proposed developments and policies.

Fourth, plans must strike the proper balance between being general and specific. Some plans are too specific to be flexible amidst change, while the very general plans are too vague to direct change. There is a broad need for

operational standards and guidelines to implement the general goals of plans over time. For example, analysis and design for pedestrian needs and spaces, including microclimate studies and standards, are making great progress and are beginning to have impact on the built city. Other specific areas of concern, such as noise, although commonly mentioned as being of concern, have not yet received the attention needed to have tangible results. Focus on such specific user-environment interactions is one way of making urban design have an impact.

Finally, many plans fail to recognize what is unique and special about the city and instead emulate other plans and places using "boilerplate" urban design solutions that could be "Anywhere, USA." Over three quarters of the cities analyzed were concerned with creating or maintaining identity and a sense of place. This is obviously a widely shared concern. Designers need to learn to recognize, value, and build on the unique and authentic aspects of each place instead of promoting the inauthentic. Disneyland may be a charming and successful tourist attraction, but it is not where one wants to live. How should the urban designer deal with ordinary places? It is ironic that urban design is typically most valued in places that need it least, i.e. in areas of strong character and identity, but it is most needed in the fast growing, automobile-dominated urban fringe or newer cities where environmental traditions are not yet established and where urban design has not been a significant part of the development process.

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## NOTES

1. Michael and Susan Southworth, "Environmental Quality In Cities and Regions: A Review of Analysis and Management of Environmental Quality in the United States," *Town Planning Review*, 44:3, pp. 231-253, July 1973.
2. The cities were: Brookline (MA), Detroit (MI), Kauai (HA), Jacksonville (FL), Los Angeles (CA), Minneapolis (MN), Oakland (CA), Portland (OR), Rochester (NY), Rye (NY), San Francisco (CA), and Seattle (WA).
3. This research is based on analysis of urban and environmental design plans for the following places: Austin (TX), Battery Park City, New York (NY), Bellevue (WA), Bellingham (WA), Boise (ID), Boston (MA), Boulder (CO), Cincinnati (OH), Cleveland (OH), Concord (CA), Eugene (OR), Healdsburg (CA), Jim Thorpe (PA), Kansas City (MO), Las Vegas (NV), Long Beach (CA), Los Angeles, (CA), Martha's Vineyard (MA), Miami Beach (FL), Milwaukee (WI), Mountain View (CA), New Orleans (LA), Oakland (CA), Pasadena (CA), Philadelphia (PA), Phoenix (AZ), Portland (OR), San Bruno (CA), San Diego (CA), San Francisco (CA), San Jose (CA), San Ramon (CA), Santa

Barbara (CA), Santa Fe (NM), Seaside (FL), Seattle (WA), Tacoma (WA), Tampa (FL), Toledo (OH), and Washington (DC).

4. Venturi, Rauch, Scott Brown, *Historic Jim Thorpe: Historic Preservation and Commercial Revitalization--A Study of the Old Mauch Chunk Historic District* (Jim Thorpe, PA: Carbon County Planning Commission, 1979).

5. Qualities were identified through content analysis of the text, analyses, plans, and illustrations. For each plan, quality concerns were noted using the terminology of the particular plan. General categories were then developed from the data; these are the numbered categories shown in Table 1. Within each main category there are often several subcategories; these are expressed in the language of the plans. Note that the percentages refer to percent of cities, not percent of plans.

6. It is interesting to compare this set of environmental qualities with the "performance dimensions" Kevin Lynch developed in *Good City Form*: Vitality, Access, Sense, Fit, Control, Efficiency, and Justice. Most of the quality concerns identified in this research could be clustered within the Lynch dimensions, for example, Structure and Legibility, Form, and Historic Conservation could be placed in Sense; Natural Conservation, and Health and Safety would be contained within Vitality. However, Sociability, Comfort and Convenience, and Maintenance do not fit well within the Lynch schema. Should not such common concerns be included in any theory of urban form?

7. Vineyard Open Land Foundation, *The Martha's Vineyard Byways Study* (West Tisbury, MA: Vineyard Open Land Foundation, 1976).
8. Kevin Lynch, *Image of the City* (Cambridge, MA: MIT Press, 1960).
9. Too often they conclude the obvious or have not informed design and policy. Image maps may reveal more about the map drawing abilities of the subjects than about their conception of the environment. They are useful in defining the extent of personal territory, as well as common orientation references, but the structural arrangement of elements on the map can be misleading. Image maps are also a useful supplement to interviews, providing a stimulus and reference for discussions of the spatial environment. For further discussion of image map limitations see Michael Southworth, "Relations Between Map Drawing, Map Usage, and City Experience," *An Urban Service for Children based on Analysis of Cambridgeport Boys' Conception and Use of the City* (MIT Doctoral Dissertation, 1970), pp. 139-157.
10. Department of City Planning, *Noise* (Oakland: Department of City Planning, 1974).
11. Development Department, *Eugene Public Downtown Spaces* (Eugene, Oregon: Development Department, 1986).
12. Donald Appleyard and Kevin Lynch, *Temporary Paradise? A Look at the Special Landscape of the San Diego Region* (San Diego: City Planning Department, 1974).

13. Planning Department, *Architectural Design Review Guidelines* (1982), *Historical District Handbook--A Guide to Architectural Preservation and Design Regulations in Santa Fe's Five Historic Districts* (1986), and *The Business Capitol District Handbook--A Guide to Development Objectives and Regulations in Santa Fe's Business Capitol District* (1986)(Santa Fe: Planning Department).

14. Boston Redevelopment Authority, *Boston Tomorrow: Draft Development Policies* (Boston: Boston Redevelopment Authority, 1984).



## ILLUSTRATIONS

Fig. 1. An axonometric map of permitted Floor Area Ratio effectively communicates what the maximum build-out of central Portland might be.

[Bureau of Planning, *Urban Form for the Central City* (Portland, Oregon: Bureau of Planning, 1987)].

Fig. 2. Simple figure/ground maps of built form and open space convey a sense of the grain of the city and the ratio of open space to built form. [Planning Department, *Santa Fe Historic Structure and Townscape and Design & Preservation in Santa Fe: A Pluralistic Approach* (Santa Fe, New Mexico: Planning Department, 1982)].

Fig. 3. Mapping of views both within the city and to outside points can be useful in understanding and maintaining the visual structure of the city. [Planning Department, *Santa Fe Historic Structure and Townscape* (Santa Fe, New Mexico: Planning Department, 1976)].

Fig. 4. It is as important to analyze pedestrian flow as vehicular flow in planning for a commercial district. This simple bar chart does both. [Cleveland City Planning Commission, *Euclid Avenue Streetscape Study* (Cleveland: City Planning Commission, 1984)].

Fig. 5. Every inhabited landscape, urban or rural, has places that are strongly valued by residents and visitors and that need to be recognized in planning and development. Residents and visitors of Martha's Vineyard were surveyed to identify their special places, as well as the places they frequently visit and places

they are unable to visit. [Vineyard Open Land Foundation, *Looking at the Vineyard* (West Tisbury, MA: Vineyard Open Land Foundation, 1973)].

Fig. 6. Roads and other pathways are the way most people experience the large scale environment, and thus warrant separate analysis. This analysis records the character of major roads. [Vineyard Open Land Foundation, *Looking at the Vineyard* (West Tisbury, MA: Vineyard Open Land Foundation, 1973)].

Fig. 7. In Santa Fe the visual form of the city was systematically analyzed on foot. This is a typical field analysis sheet recording information on views, street width, slope, and alignment, trees, walls, surfaces and detail, and form in graphics and notes. The individual survey sheets were then combined to make a composite visual analysis of the city. [Planning Department, *Santa Fe Historic Structure and Townscape* (Santa Fe, New Mexico: Planning Department, 1976)].

Fig. 8 The vivid sketch is still an unmatched method for documenting the special qualities of places. [Planning Department, *Design & Preservation in Santa Fe: A Pluralistic Approach* (Santa Fe, New Mexico: Planning Department, 1982)].

Fig. 9. Here major view corridors to regional landmarks are proposed. Each view corridor is then analyzed in terms of the impact of full buildout on the view. [Bureau of Planning, *Urban Form for the Central City* (Portland, Oregon: Bureau of Planning, 1987)].

Fig. 10. In San Francisco a computer model has been developed to project the shadow impact of proposed high rise structures on open spaces. The solar fan map shows the maximum height allowable in order that buildings not cast

shadows onto Union Square from 10am to 4 pm, March 21 to September 21.

[Department of City Planning, *The Downtown Plan* (San Francisco: Department of City Planning, 1983)].

Fig. 11. It is useful to identify areas of cohesive character in both natural and developed areas in formulating policies for development. Here nine different landscape districts are identified. Each district is then analyzed in terms of appropriate types of development. [Vineyard Open Land Foundation, *Looking at the Vineyard* (West Tisbury, MA: Vineyard Open Land Foundation, 1973)].

Fig. 12. Design guidelines may be expressed graphically using a typological approach. They are easily understood and relate clearly to the built form. [Andres Duany, Elizabeth Plater-Zyberk, et al., *The Town of Seaside* (n.d., n.p.)].

Fig. 13. In Bellingham, Washington several design alternatives were developed by a task force of professionals and community representatives. Alternatives were then evaluated according to the criteria. [NBBJ Group, *Bellingham Central Waterfront Development Plan* (Bellingham, WA: Planning and Economic Development Department, 1986)].

