CRITIQUE OF THE SOUTH LOOP NEW TOWN PROPOSAL FOR CHICAGO,
WITH AN ANALYSIS OF SELECTED ISSUES

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dedicated to my loving husband

Abstract

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Submitted to the Department of Architecture of January 21, 1977 in partial fulfillment of the requirements for the degree Master of Architecture in Advanced Studies

This thesis is concerned with the problem of keeping middle-class families, who like the urban environment in the cities. Here one proposal for a new-town in-town, just south of Chicago's central business district is studied. Three particular issues are selected for analysis. The research is aimed towards assisting the Chicago Department of Development and Planning and the Chicago 21 Corporation (a group of downtown business leaders) who together produced the original plan, as well as architects and whatever interest groups will be affected by this development, in making some of the decisions which will affect the possible success or failure of this project.

In order to determine when in the life cycle of a building project issues should be investigated, first a comprehensive programming process is outlined. This process has two phases--pre-development from master planning through design; and post-development from completion of construction until several years after total occupancy. The issues are discussed in the context of the time frame laid out in this process.

The topics are chosen because the questions one can raise in regard to them are central to the whole success of the proposal. The first one is--what are nice residential neighborhoods, because this is what the developers and city planners hope to create here. What are its physical and social characteristics? What kind of user group can we expect to want to live here, and what kinds of families are planners trying to attract?

The second issue is density and mixed land use. It is shown here how these two issues are, in the urban context, inevitably intertwined. The questions that are tackled here, with respect to the South Loop New Town are: the advantages and disadvantages of high vs. low density, high density high-rise vs. high density-low rise, how high is too high and what amenities could be included in high density, mixed use neighborhoods in Chicago to make them attractive to families.

The third issue is residential open space. How much space is enough, in South Loop New Town, where should it be located, territorial boundary lines, the need for trees, water, seating areas, etc.--these are all areas which are investigated. In this paper, the only available proposal for the development of the first 53 acres out of 335 acres in this New Town is examined. It is hoped that the planners and developers will be able to derive general guidelines for themselves for the development of this New Town, in the light of the discussion on these issues.

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the need to encourage more individualistic looking mass housing, and of the real limits to how high densities should reasonably go.

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Executive Summary

A Guide to this Paper for the Planners, Developers and Architects of South Loop

This thesis will discuss and critique how this new town in Chicago is being planned and the way the developers, city planners and architects appear to be dealing with some of the critical issues. A proposal for a more comprehensive planning approach will be presented here.

A Comparison of the Two Approaches

The planning process being used by the key development figures for the South Loop New Town (The Chicago 21 Corporation) is basically a linear one, because each of its steps takes place only once. (See the chart on the next page.) First they do the initial programming (p. 32) which includes conducting a market study to determine who their target user group will be and what are main issues which concern these potential customers. Then, while working out a master plan with their architects, they investigate ways of coping with these critical issues.

This is followed by the design phase, when as many architects as the developers need, are selected to work out specific development packages in detail, which are then built. Although the Chicago 21 Corporation executives claim that they are concerned with how the projects in the new town will be eventually managed, to guarantee the

PROGRAMMING AND PLANNING OVER THE LIFE CYCLE OF A TYPICAL PROJECT

	Pre-Development Phase				Post Development
	Initial Programming	Investigation of Critical Issues	Design Stage	Construction Stage	Post Occupancy
EXISTING STRUCTURE	. Site Analysis . Feasibility Study . No. of Units Established . Market Study . Mix of Units . Mix of Land Uses (p. 32)	. Examination of the two key issues revealed in the study - education - security	. Each architect designs a piece of the package according to their own criteria	. Construction of the projects	. Projects are occupied . Management takes over and all apartments are conventionally managed
ALTERNATIVE (PROPOSED) STRUCTURE	. Site Analysis . Feasibility Study . Very General Master Plan	. Dimensioning of critical issues from the point of view of as many different interest groups as possible (pgs. 32-34,37) in addition to the ones above such as density, residential, open space, who the user group <u>should</u> be, etc. - Derive performance guidelines - Reprogramming	. Besides designing architects are asked to write <u>accountability</u> list (p. 39) explaining their assumptions about how the building would be used + Architects are asked to design flexible areas subject to change post-occupancy (p. 39-51) + Manual is prepared with cooperation of management explaining to users the modifications they can make post-occupancy (p. 46-48, 53)	. Same as above + Inquiry of users at the end of the construction phase (pgs. 53-57)	. Management is selected which is interested in helping residents to make necessary adjustments in their environment + Second inquiry of users satisfaction + Third inquiry
←---A "LOG" of the whole process is kept from beginning to end in order to produce a case study and so that post occupancy suggested modifications can be made (pgs. 18-27, pgs. 38-39)----------→					

plan's success, they do not seem to be taking any specific steps to outline a general "management" policy at this time.

There are several problems with this planning process. First of all, if the Chicago 21 group wanted to write up a case study on the initial projects to see whether or not they are socially successful, (as opposed to economically) they would not have a body of information to draw from that had been accumulated during the predevelopment phase. Also this method does not integrally include a feedback study of user's satisfaction the results of which could be used on subsequent projects.

For these reasons, we have outlined for our critique of the South Loop New Town proposal, a 'comprehensive' programming process. Comprehensive here means that addition to the steps taken traditionally in planning a new town that this proposed process adds certain steps to the ones outlined. Firstly, here it is recommended that a log be kept documenting the entire programming process and design process. (For an explanation of how to construct a log, its purpose, etc., see pgs. 18-27, log of the South Loop New Town pgs. 38-39.)

After the initial programming has determined that the project is financially attractive a step was added, called dimensioning the issues. To dimension an issue is to 1) examine it from many points of view in order to understand what advantages different interest groups would gain from different solutions; 2) discuss its boundaries and limits--in other words, to call attention to the best and worst ways available for dealing with the specific problems such as

residential open space. 3) In this "dimensioning" process the issue is put on "historical" perspective. This means that the consequence of imaginative and routine design strategies would be discussed based on case study records available on similar type projects. 4) Lastly, this step includes an analysis of when, during the life cycle of a building, the designers and developers should try and come to terms with a particular problem.

The objective of this dimensioning process should be the formulation of formal or informal performance guidelines (a clear definition of just what these guidelines are can be found on pgs. 34-38). In this thesis this special way is proposed, of studying those issues which the market pointed out were critical, as well as examining all the relevant topics. (For a discussion of dimensioning, see pgs. 32-39; p. 67. In chapter four, three issues were "dimensioned," which had not yet been carefully examined by any of the interest groups.)

Next, in the design stage, another step is added in this alternative planning process, which consists of writing an accountability list (p. 39). This is a record of the architects' key design decisions, how they tried successfully or not, to deal with those social problems which have physical solutions, which were pointed out when the issues were dimensioned.

Another addition which is suggested is the design possibly, of flexible areas which the owners and tenants might be able to modify, post occupancy, to make their new environment serve their needs better. (pgs. 39-51). This suggestion would have to be tested in the market-

place to see if it would be popular and presupposes that a management would be selected that would be amenable to working with the occupants to alter the project post-occupancy. The architects are here asked to prepare a manual for the residents and management explaining to them what allowances they had made for the possibility of later changes, and in order to set uniform design standards for modification affecting the shared building facades, etc. (pgs. 46-48. 53).

The final stage of the pre-development phase is construction. It includes, according to the alternative plan, a user needs inquiry, made after the model apartments are completed. Now potential and surrogate users (the surrogate users are the type of people selected for market studies) can visualize and react to the actual plan and maybe make constructive suggestions (pgs. 53-57).

This will be the first of three suggested inquiries, the other two to be conducted post-development. The questions which those three inquiries will try to answer concern how accurate the predictions made by the designers are, in connection with user satisfaction (see pgs. 41-43 for a discussion on question writing), what possible mixed land uses they would like to see here (see questionnaire pgs. 56-57) and what changes the residents would like the developers to make or they themselves would like to try.

The present planning process ends, probably, with construction when the management will take over, unless the developers decide to manage their own project. In the alternative structure, during this post-development, post-occupancy phase, two more user needs inquiry

could be conducted (pgs. 58-63). Then the results of the inquiry could be fed into the programming and design phases of new projects going up in the South Loop New Town (and perhaps modifications could be made within the same buildings examined, if this were desirable and possible). In this respect, the alternative structure laid out here is cyclical, as opposed to the present one which is linear, because the results are fed into a design or redesign step. Ultimately, case studies would be written based on the information yielded by the log and feedback studies detailing the advantages and disadvantages of different design and management solutions.

Dimensioning the Selected Critical Issues

Neighborhood - This section of chapter four examines many available studies which were done on apartment dwellers, especially in mixed land use or mixed-income communities. (For the latter see M.H.F.A. study pgs. 82-87, for an example of relatively expensive housing in downtown Boston see the Boston Redevelopment Authority study pgs. 73-76). Based on their experiences, we were trying to determine whether a mixed-income, multi-racial community would possibly be successful in downtown Chicago. The conclusion drawn is that the community in South Loop would probably have the best chance for surviving if it were homogeneous in income, although open to all racial and ethnic groups and if it were heterogeneous in land use, (pgs. 84-91, see also footnotes chap. 4, #8, 10, and the discussion of affinity environments pgs. 78-80). This chapter also notes the physical characteristics of

successful neighborhoods pgs. 91-106). It concludes that the designers should plan the streets to encourage high pedestrian activity. The neighborhood should have identifiable boundaries, landmarks, centers of activities or nodes and should be landscaped with quality street fixtures and in a way that considers easy careful maintenance in order to maintain the neighborhood's high status (pgs. 91-103). Lastly, it suggests ways of checking post occupancy to see if the designers were successful (pgs. 103-106).

Residential Density and Mixed-Use - This chapter points out how dangerous it could be for the developers to go ahead with the extremely high density they are planning, (pgs. 109-112) in light of what is known about middle class preferences (pgs. 112-114). Also we demonstrate that gearing this project for very high densities may mostly attract either couples with no children or those with older or grown children. Since there are presently many other places, with perhaps higher status, where these two groups can live in Chicago, such a narrow focus may too severely limit the future clientele. Therefore an investigation is made into how high-rise living can be designed to be amenable to the "average" middle-class family. Amenities, which mothers with children may want are explained (pgs. 130-131) as well as design methods and standards for improving privacy (p. 118), security (p. 115), daylighting (p. 117), comfort and convenience (p. 129-134) and for minimizing noise (p. 121), in the general discussion on high-rise, high density.

The discussion on mixed use and high density explains where

and what kinds of non-residential use should be located here, and the sociological reasons for combining other uses with residential ones in a high density environment (pgs. 135-141). Then suggestions are made for ways of testing how well different design strategies are operating post-occupancy (pgs. 141-146).

Site Planning and Open Space in Residential Design - A sociological and environmental psychological analysis explains why the open space in residential environments must be differentiated to meet the needs of the various types of residents (different ages and interests) who will use it. The discussion on territoriality explains why middle class families may reject the idea of having the space in their 'backyard' owned by the city and publicly managed (p. 155-161). A critical analysis is presented laying out the consequences of that strategy, which while saving money for the developers in the short run may spell disaster for the project, over time (pgs. 155-160). In this chapter instructions are given for how to differentiate the communal spaces, how to give them character and identity (pgs. 161-165). Finally, questions to ask of residents and other strategies are suggested for determining the user satisfaction with these areas, as well as techniques for improving the spaces post-development.

It is hoped that the discussion of these three selected issues, which explains how and when they must be considered in the alternative comprehensive approach to programming and planning, outlined in chapter three, will prove helpful to designers and developers involved in the South Loop.

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CHAPTER I

INTRODUCTION

Since around 1950 there has been a nationwide drive to save the inner cities and revitalize the downtown areas and central business districts. There are two groups that have the most at stake in seeing to it that such a development takes place and is successful. The decay and relative decline of inner city neighborhoods threaten property values and the tax base. Therefore the first group consists of downtown central business district interests and city government agencies who share these practical economic anxieties. They both fear, in addition, the loss of middle class white collar workers, who supply the bulk of the labor force, in addition to paying a large part of the city's taxes.[1]

The second group is made up of those advocates of the urban lifestyle who claim that the big crowded city is the source of all culture, economic advancement, urban aesthetics and civilization itself. They defend this point of view with sociological and historical studies.[2] They will quote studies which document the high alcoholism rate of housewives, the boredom and conformity of the sprawl of homes on look-alike lots, as well as its wasteful use of land and our natural resources. These advocates assert that the

"experts" who simply take it for granted that given the chance practically every household and every institution will maximize private space, i.e., choose the biggest most attractive piece of land available, over every other potential quality in an environment, are wrong. They refute the contention of these experts that people are inherently anti-urban.[3]

Although many families are moving to the suburbs it will be demonstrated in this thesis that there is enough of a demand for urban living, especially among families already living in the inner city, to warrant making this alternative lifestyle available for them.[4] However, in order to make high density urban living a real alternative to mid-to-low density suburban living (as opposed to a place people compromise on because it is the only housing they can find in their price range) it must really compete. To do this it must offer some of the things suburban living cannot, such as adequate services within walking distance as well as some of the crucial things it does such as good schools and quality housing.

The housing director of a local self-sufficient thriving suburb of Chicago--Oak Park, which was recently named All-American city of the year 1975, explained why her town was so popular.[5] It offers housing in many price ranges, is close to the city, has especially attractive housing for stable middle class families, but, most of all, it is a small community. Here the residents exercise control over the development of its parks, public spaces, schools, etc. and they can effect change. However, there is one area of housing, she mentioned, that they had a great dearth of--

middle-class multi-family housing, with appropriate play places for children, for which she is always receiving requests, especially from families who simply could not afford a private house, and from middle class black families who appreciated Oak Park's progressive outlook towards integration. These are the types of needs which South Loop New Town can try to fill.

In order to demonstrate how one could program and design new and better city neighborhoods, this thesis will study the case of a New-Town-in-Town, as an urban alternative for middle-income families. This town, it is hoped, will house a more stable population than has recently been attracted to Chicago's "central communities." It will be situated just below the "Loop" (Chicago's central business district) and has been named "Dearborn Park" or the South Loop New Town-In-Town. The Chicago Department of Development and Planning Agency (D.D.P.), funded partly by the Chicago 21 Corporation (a group of Loop businessmen) recently published a book that proposed guidelines for the development of this new community. The next chapter will include a brief history of the South Loop and an analysis of the key actors and interest groups affected by the New Town planned here.

Many of the issues raised in these Guidelines for Development, such as density, security, recreation, etc., can be investigated and considered at different stages of a project's life. In order to understand what these "stages" are, in the third chapter of this paper a comprehensive programming process is framed. Laid out here are the events that traditionally take place at each phase as well

as suggestions for what future events could take place with strategies for their implementation.

This approach to programming has two phases. First is a "feed forward" stage in the pre-development life of a project. Pre-development is when feasibility studies and a site analysis are made; the master plan is drawn up, the sizes, types and number of dwelling units, and the kinds of services and supporting facilities to be offered here are established. During this pre-design programming pertinent issues can be identified and dimensioned. This latter step would include a search of the environmental design and sociological literature and possibly the setting up of specific guidelines for the architect. It is also suggested that a log of the events and important participants during this stage be kept.

The second phase is the "feedback" stage when the users and management could have an opportunity to react to this new environment, and any modifications which might still be possible could be made. Ideally there would be at least three "waves of inquiry"[7] during this phase--the first just post-construction, the second after total occupancy, and the third some years later. Since the plans for this New Town call for it to be built in stages, it is hoped that the feedback results of the first few projects can either be used to improve them or future developments in the New Town. Since these inquiries can get very expensive, the costs and benefits of such a study for the different participants here--the residents, developers, architects, city planning officials, city taxpayers and

residents--will be investigated. Also, it will be important to settle the problem of who controls these inquiries and to insure that the differing needs of various interest groups are taken into account.

Briefly, there are two key benefits to doing research on user needs pre-design, and a feedback study post-occupancy--one practical and the other more ideological. Today more than ever before, people move quickly and easily when they are dissatisfied with their living arrangements, or when their families grow. The premise is accepted here that the Chicago 21 group and the city planners are correct in their assessment that stable neighborhoods are needed in the inner city and that such neighborhoods need long term residents who are committed to staying within that community.

One way to keep people is to have attractive low, subsidized rents, but the present plans for the South Loop have rejected this approach. So the community here must be designed to attract middle class families and keep them by making them feel that they can continually reshape their environment and have a real voice in its future. If this New Town does not succeed in attracting these residents then the chief objective of the whole plan may never be accomplished.

Most new Towns built in the last few decades all over the United States have fallen far short of achieving their goals. In fact, many have even gone bankrupt. If this happened to the South Loop New Town, not only would the private investers here lose a lot of money, but the taxpayers who would have built the roads, parks

and schools for them would stand to lose a lot too. Perhaps, with the "waves of inquiry" approach, which would root the process in the people most affected by it, higher satisfaction levels could be achieved, and the developers would stand a better chance for success. Here, theoretically, if adequate proof was presented that a particular aspect of the design was unsatisfactory, those mistakes could be remedied or at least not repeated in future projects.

From the second ideological point of view, it has been shown that housing more than any other aspect of the man-made environment, affects people's lives.[8] Yet the users of the multi-family environment, usually have the least to say about the formulation and modification of their homes, with which they so closely identify.

The obvious costs are primarily to the developers. They may fear finding out critical information about their project which would be useful for their future competition.[8] Assuming, though, that adequate attention was paid to user needs in the design stage, and that inflation will keep the costs of all new construction and prices of apartments well above those of the first projects, there should not be any problems in the first development that are so grave that residents will move out and pay more money across the street.

A key aspect of the comprehensive approach to programming is the dimensioning of issues before the design stage has been completed. Chapter IV of this paper has several sections discussing basically three selected issues which are relevant to the design of residential neighborhoods. They are 1) the family neighborhood who lives there, what is it, etc., 2) density and mixed land use

and 3) open space and recreational areas in residential neighborhoods. In this chapter the objectives are examined, which were set forth by the Chicago 21 Corporation and the Chicago Department of Planning and Development in their Guidelines book. For example, can the densities the planners claim are needed to make the project feasible (or highly profitable to the railroads who own the land, to the Developers of Chicago 21, to private investors and to the city in terms of future tax revenue) be achieved in conjunction with their stated aim of attractive families with children of all ages? An attempt will be made to add insights into these issues which would be helpful to the planners, city officials, developers, architects and various consultants who would be involved in the pre-development stage of the project.

Footnotes

CHAPTER I

[1]Robert Earsy and Kent Colton, Boston's New High Rise Apartments: A Study of Residents and their Preferences (Boston: Boston Redevelopment Authority, Jan. 1974).

[2]Catherine Bauer Wurster, "Can Cities Compete with Suburbia for Family Living?" Architectural Record (Dec. 1964), pp. 148-158.

[3]Ibid., p. 150.

[4]See subsequent discussion on the user group profile.

[5]In an interview with the author, March, 1976.

[6]Department of Development & Planning, South Loop New Town: Guidelines for Development, (Chicago: Department of Development of Planning of the City of Chicago, August, 1975).

[7]This phrase was coined by Dean William Porter at M.I.T.

[8]Clare Cooper, "House as a symbol of Self," in Designing for Human Behavior edited by Jon Lang et al (Stroudsberg, Penn.: Dowden, Hutchinson and Ross Press, Inc., 1974).

CHAPTER II

GENERAL BACKGROUND ON THE SOUTH LOOP NEW TOWN PROPOSAL

The South Loop area is generally characterized as consisting of obsolete railroad land, but in reality only 210 of its 335 acres are owned by more than a dozen different railroad companies. Only a small portion of the existing trackage has been removed over the years, as facilities and operations were abandoned. In addition, there are two major areas of non-railroad use, comprising 50 acres principally in marginal commercial or industrial usage, another 75 acres is actually publicly owned land and facilities, principally streets rights of way.[1] The South Loop currently (1970 census) houses fewer than 400 persons, principally in transient living quarters. In fact, according to latest estimates the only residents left (1976) are the residents of the local Y.M.C.A.

The areas surrounding the new town site vary in the nature and intensity of their land use. To the north is the central business district with its mixed office and retail development next to luxury housing concentrated along Lake Michigan (see Figs. 1 and 2). There are also plans for a new Chicago city college here called Loop College. To the southeast there are some major institutions, the

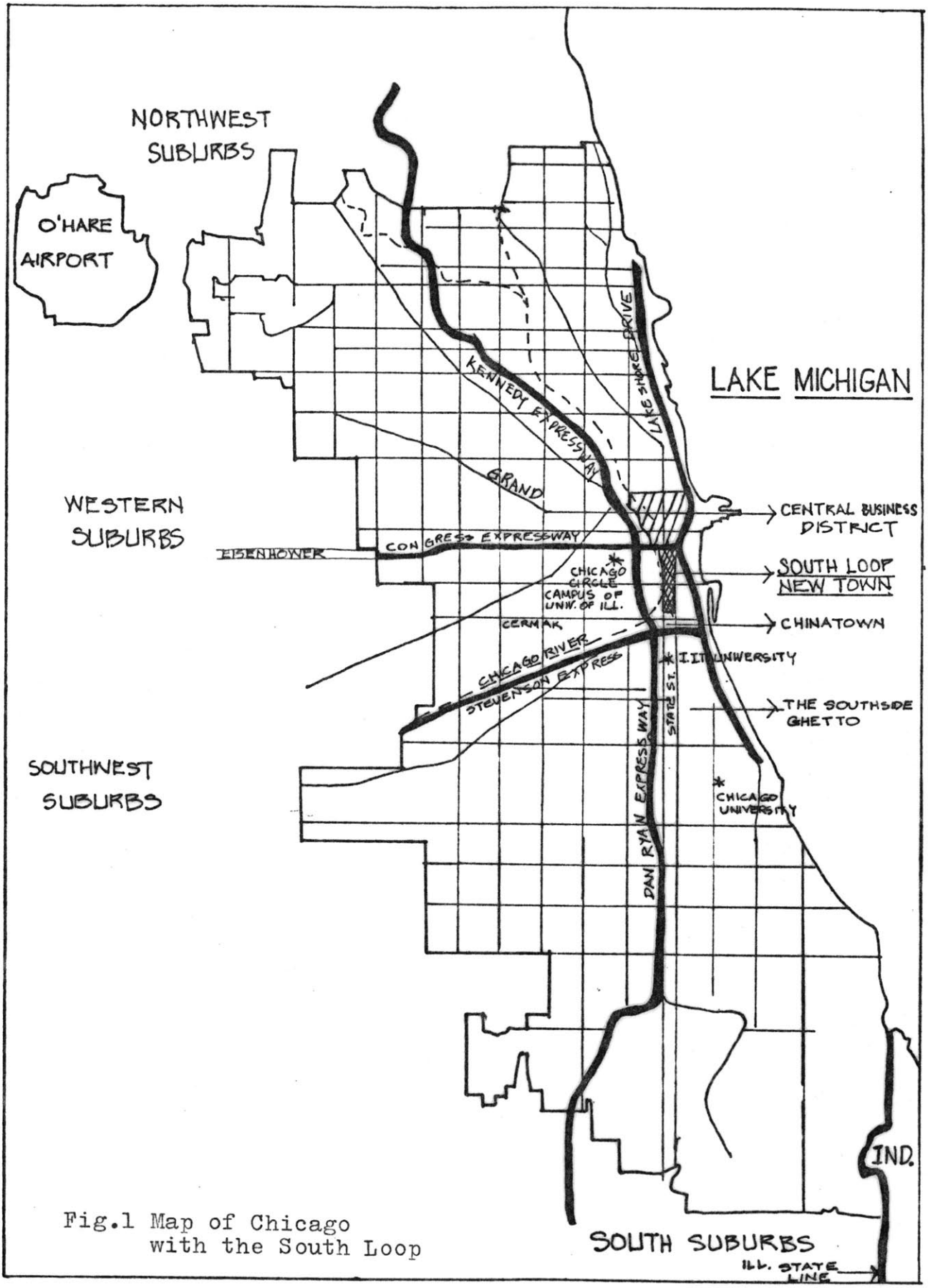


Fig.1 Map of Chicago
with the South Loop

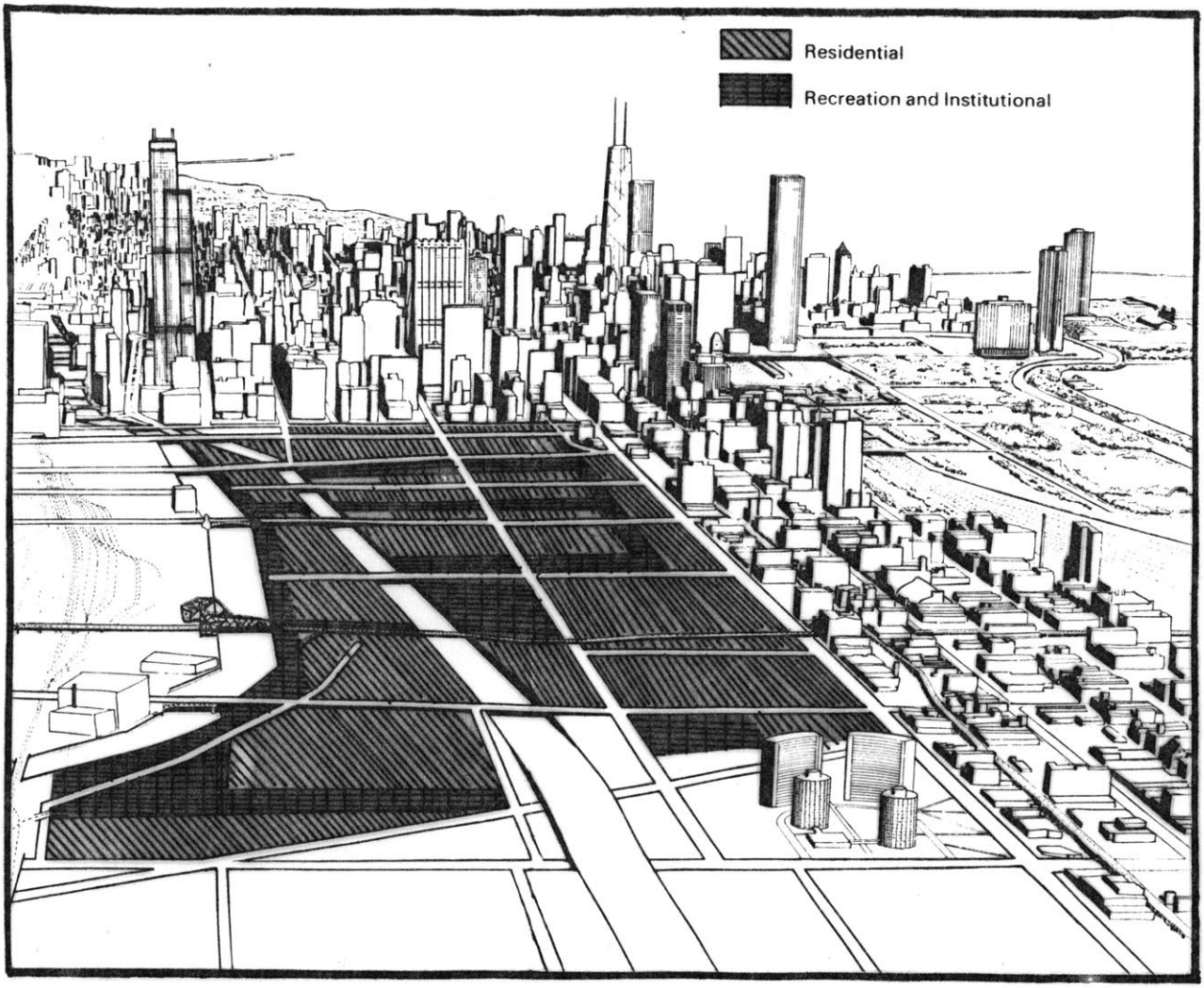


Fig. 2 Map of the South Loop New Town Site with the Central Business District

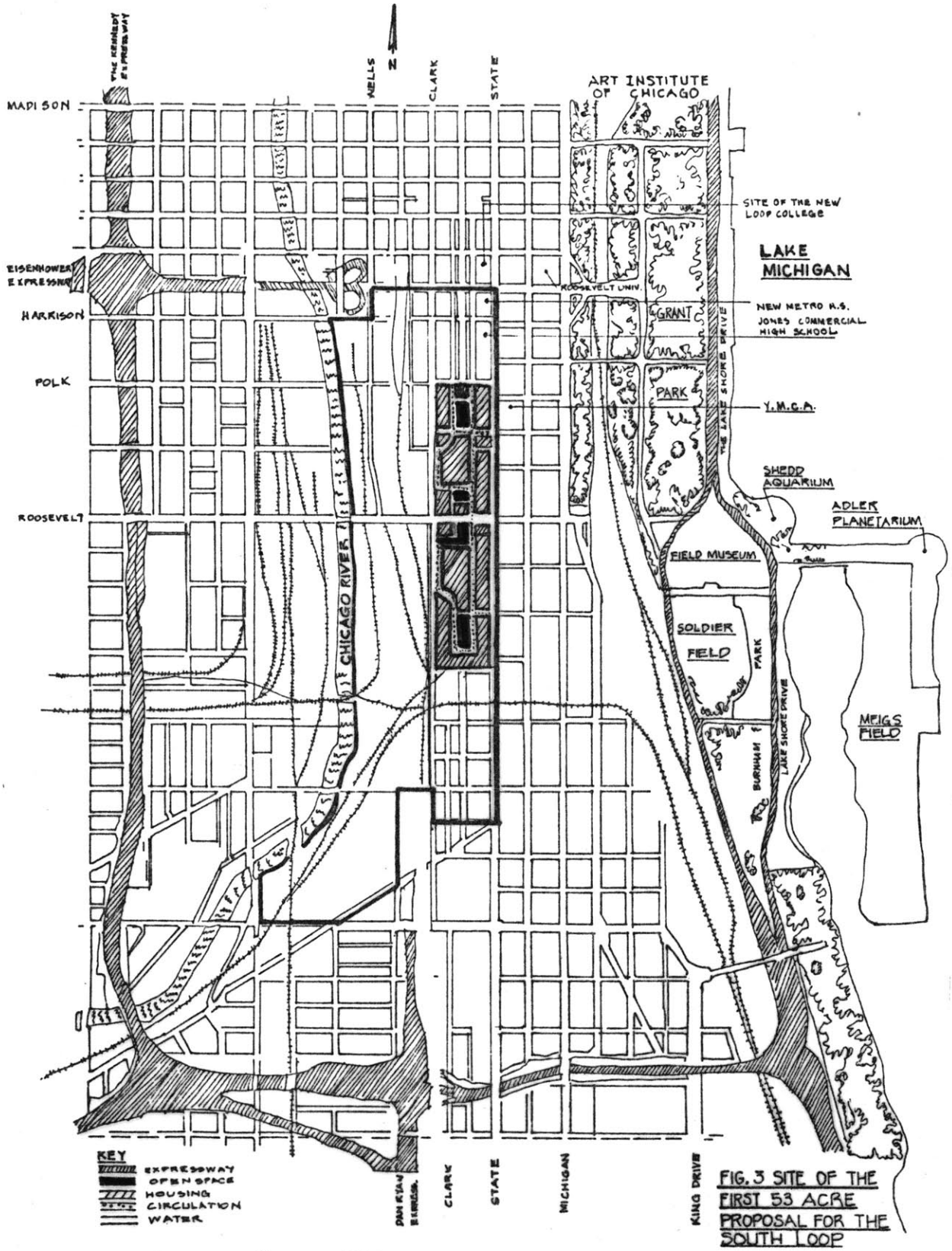


FIG. 3 SITE OF THE FIRST 53 ACRE PROPOSAL FOR THE SOUTH LOOP

Michael Reese/Mercy Hospital complex, and the Illinois Institute of Technology, as well as some major residential developments. Directly south are some public housing for the elderly and Chicago's Chinatown. These institutions together with Chinatown form a sort of buffer zone between the South Loop and the poor predominantly black neighborhoods of South Chicago.

Immediately to the west is the Chicago River, presently not very attractive, but it should have a lot of potential because the city is planning a massive cleanup campaign in addition to building a strip of recreation and parks along its banks. Further west is the University of Illinois Chicago Circle campus and a changing area of mixed commercial/residential/rail manufacturing uses.

Lands to the east, however, provide the New Town's biggest attractions. There is a Lakefront museum, lots of open space, parks and recreational development all along the lakefront as well as Central Business District (referred to hereafter as C.B.D.) oriented hotel and related development (such as one of Chicago's major convention centers, McCormick Place). The area adjoining it, extending two blocks east, between the border of the new town site and Lake Michigan has the potential for further development and change by private developers in conjunction with both new town development and its own inherent value based on its proximity to both the C.B.D. and the Lakefront. Presently, there is a Y.M.C.A. in this area, which has plans to build new facilities if the South Loop new town materializes.

The Chicago 21 Corporation, a private agency representing

the business interests was set up in cooperation with the Chicago Planning department to redevelop and plan the central area communities in Chicago. They claim that they hope to create in Dearborn Park, (the name chosen for the first development package), middle-income residential communities which are integrated racially and socially, in neighborhoods of quality.[2] This population is expected to be dependent on the Central Business District for its cultural, commercial and recreational and transportational facilities in a mutually beneficial relationship. It is anticipated by the Chicago 21 people that a 24 hour family type of community will be able to take advantage of the vastly underutilized facilities of the predominantly 10 hour a day (8 a.m. to 6 p.m.) Loop area, in addition to providing the C.B.D. with a huge (projected total population 30,000) new source of labor. The City of Chicago also needs homes within the city's limits for its thousands of employees because of a recently passed well-enforced law that requires all civil service residents to reside within the city's boundaries.

The new communities would have mixed land uses, but only those compatible with the strictly residential quality of the New Town. This relationship should reinforce the C.B.D.'s function and purpose, while at the same time providing a new middle income community with the kinds of services and shopping which most suburban areas take years, if ever, to construct.

The City of Chicago's Department of Development and Planning have also set forth goals regarding this community. Briefly summarized they are:

Land use and intensity of development: an appropriate mix of land uses such as schools, light industrial (when it is labor intensive) commercial and recreational, which can serve the high density residential area in a beneficial way. The developers will build local convenience stores.

- Housing will be high density (an average of 80 units per net acre) high rise, to high density low rise
  - all attached multi-family apartment buildings and townhouses
  - "hidden" parking underground and/or under buildings on the first few levels. As much open space and recreational area as possible
  - parks - the city will help by developing much of the open space and parks including the area along the Chicago River.

Educational: They expect to have good schools here. The old landmark, Dearborn Subway Station, will be renovated into a multi-service center and elementary school offering a rich variety of activities and educational methods.

Access and Circulation: Separation of pedestrian and vehicular traffic, as few cars and parking spaces as possible; no on street parking to prevent cars from the central business district from parking here and creating traffic problems. The city will build all the public rights-of-way and streets.

Energy: to see built in whatever energy saving features are possible.

Phasing: The first development package must contain the minimum elements needed in order to create a residential "neighborhood."

The first "neighborhood package" that the Chicago 21 Corporation has planned is a 53 acre parcel which they have recently purchased, on the northeast section of the new town (see Fig. 3). The Chicago 21 Corp. claims that it is presently seeking architect developer teams who would want to develop small portions of the neighborhood in accordance with their master plan. (It is hoped that this effort will be sincerely carried out since the greater the number of architects who get involved, the greater the potential that a wide variety of housing styles and types will be offered).

This development approach would have the advantage of making the South Loop seem less like a "project" and more like a new town. However, since these businessmen are determined to see Dearborn Park built, if they cannot interest enough outsiders, they are willing to invest in developing the entire first package by themselves. The current master plan for these 53 acres is being designed by the architectural firm of Skidmore, Owings and Merrill.[3]

Representatives from Chicago 21 have stated that the purpose of their master plan is to "sell" the concept of the New Town and what they really want to do is sell off small parcels of property to be developed by small scale "civic-minded" entrepreneurs (in the way that Columbia, Maryland was developed by James Rouse.[4]

The Chicago 21 Corporation feels that since this plan would be very beneficial to the city also, that Chicago should develop as

much of the open space as possible, on this site, so that the Corporation can spare themselves that expense. Of course, that land would then become public.

All of the land is presently zoned for manufacturing as M2-5. The Urban Investment Corporation, (see following - analysis of actors) a consultant of the Chicago 21 Corp. is presently drafting a request for Planned Development Zoning in this area, with an overall residential zoning of R-8, one of the densest allowed anywhere.

Under the rules of Planned Development Zoning, (which is used in Chicago for building planned unit developments or P.U.D.'s) mixed uses are allowed. This means the developer can build commercial and office space side by side with the housing.

After doing a financial feasibility study, the developers determined that they wanted to build 3,000 housing units on these first 53 acres:

335 - townhouses
630 - mid-rise "sale" units (condominiums)
265 - mid-rise rental units
1,120 - high rise rental
270 - high rise "sale" units
380 - elderly units

Only the elderly units will have subsidizing from the Illinois Housing Development Agency. There will be one to one parking for the townhouse units and from around 60-75% parking for elevator building units, and very little parking for the housing for the elderly. It is expected that the density will average 81 units per net acre.[5]

Analysis of Actors in the South Loop New Town*

1. Private Business

A. The Chicago 21 Corporation

This is a group of stockholders, among them the biggest corporations in Chicago and the United States, including several banks, Standard Oil of Indiana (AMOCO), Sears Department Stores, People's Gas Co., and Skidmore Owings & Merrill, architects, engineers, represented by senior partner, William Hartmann. Each of them has invested from $100,000 to $1,000,000 in this 6½% limited dividend corporation (L.D.C.)

This group was formed in order to protect the Downtown Chicago business interests, who want to see the Central Business District restored to full use by the presence of a stable family community just to the south of it, instead of the eyesore of some 420 acres of abandoned railroad land and warehouses. Such a community would provide them with a consumer market for their goods and services as well as a conveniently located labor force.

It is possible that they also see an excellent opportunity to make a profit in other ways. For example for Skidmore it will be in lucrative architectural master planning contracts. For People's Gas the profits will be in contracts to connect additional necessary gas lines to development projects and in getting 30,000 additional new customers. For the banks it will be in mortgages and construction loans, and so on. Their main objective is in seeing that this new town is actually built. Just what transactions are limited to

*As complete a list as can be compiled at the time of this writing.

a 6½% profit is not really clear. That profit margin was established to give them credibility with the city's planners and newspapers, because it is limited, as well as with the general business community because it is not non-profit.

At the present time they plan to buy the land here from the railroad companies, or get the city to buy the land and they will lease it. If they buy it outright they will sell it off in small parcels to developers but supposedly every developer will have to comply with the master plan; although it is not clear how they plan to enforce this compliance if they don't own all the land. At the present time they own 53 acres of this land.

In order to make the area attractive for development they had to get the city to draw up a master plan for the area. They helped finance the Guidelines for Development of the South Loop New Town paying $225,000 of the $400,000 budget. In this plan the City states goals like having a varying income community with ranges from low-moderate, middle and even upper income. The objective was to provide apartments for many of the stable hard-working families with children, especially, who could not afford a private house and wanted to stay in the city. If this was ever Chicago 21's goal it is no longer. Practically speaking, the more children, the bigger the problem of schools and amenities for youngsters and parents becomes. They have acknowledged the schools' problem by working with the Board of Education and with an Educational Facilities Laboratory grant to study this problem, but they have not yet demonstrated how they would spend any of their own money on solving it.

Usually the only way housing for moderate income people can be built is through government subsidies. There are however tremendous complications in going this route. If federal money is accepted then complex environmental impact statements must be made. There are also the problems that are endemic to multiple client situations, of bureaucracy and red tape. The objective of the Chicago 21 group will be to try and avoid having any other than "market" tenants and owners here except for a small housing for the elderly project, so that they will need as little subsidy money as possible. Principal actors:

Carl Bufalini - Secretary of the Chicago 21 Corp.

B. Chicago 21 - Consultants

1) Urban Investment - Key actors

- Mr. Philip M. Klutznick - Chairman of the Chicago 21 executive committee association with Urban Investment Corporation
- Mr. Norman Elkin

Glen Steinberg and other staff planners

Urban investment is a development corporation which is acting as a consultant to Chicago 21. Their role is to find smaller developers and architects interested in investing in the New Town. They are also the coordinator for the Chicago 21 Corporation, in charge of all of the other consultants.

2) Other Consultants

a) Skidmore Owings & Merrill - William Hartman
Architects, Planners, Engineers

In charge of master plan studies, they conceived of the

the master plan defining what "Dearborn Park" would look like.

b) Educational Consultants

Evans & Clinchy
Elizabeth Cody, Educational Planning Consultants
Dr. Blythe M. Clinchy, Dept. of Psych. Wellesley College
Stanton Leggett, Stanton Leggett Assoc.

They produced a very exciting plan for solving the education problems of South Loop residents including a scheme for an elementary school and secondary school, offering different educational options with the possibility of tying into the city's wide resources.[6]

c) Security Consultants

Dick Gardner Associates - landscape architects hired with federal money to propose a master plan and architectural details that will help maintain a high level of security in the South Loop.

C. F. Murphy Assoc., architects and Engineers

d) Legal consultants - on retainer - confidential.[7]

e) Public relations consultants

f) Marketing consultants

g) Management consultants

h) Builder consultants

2. <u>The Vested Interests in the South Loop</u>

As far as can be known at this time they consist of businesses such as warehouses and small factories in rundown-looking facilities who own property around the proposed New Town. Also there is a Y.M.C.A.

Everyone, it would appear, would stand to benefit from an increase in property values which development here would bring. There is no organized group representing them.

3. The Public

The public will be paying for new roads and parks and schools, and will want to have their money well spent on facilities available to everyone. The funds will be channeled through the departments of parks and recreation, the highway department and the Board of Education.

4. The Users

This group has not yet materialized. An analysis of who they are and their needs can be found in this paper in the discussion on the Social Definition of Neighborhood, and throughout the dimensioning of the issues.

5. Government Agencies

Their political objective is in supplying more housing for city workers (civil service and those with private corporations) without it costing the taxpayers too much money. This will be a big problem. They will have to spend a lot of money developing parks along the banks of the Chicago River, laying in streets, developing recreational areas and schools. There will be a lot of criticism from residents of existing neighborhoods, who will want to know why money is being spent here--in an unpopulated neighborhood--rather than in existing communities. On the other hand, the big business interests are exerting a lot of pressure on them to see this area developed. These agencies have a strong financial reason to help

these interests. One, they want to keep these businesses from fleeing to the suburbs, where the labor force is also moving. Two, they would like to increase the real estate taxes on land that is presently practically unused. Thirdly, they would like to keep the middle class family population, an important tax base and source of social stability, within the city's borders,and pouring money into existing "grey" neighborhoods may not do that.

A. The Chicago Department of Development and Planning

Key actors - Lewis Hill, Director
Denis Harding, Maurice Peresh, Bill Martin, Staff

The role they must play is crucial. Hopefully they will substitute themselves for the user group and see that the users' interests are protected by suspending city approval of all plans unless they are. Their approval can be contested in court, though, so their power is limited.

B. The Illinois Housing and Development Agency

They will provide subsidies necessary to build housing for the Elderly in the South Loop.

C. Board of Education

Key Actor - Director James Redmond

Together with Chicago 21's educational consultants they are developing a plan to set up a new experimental, innovative prototype school for the South Loop.

D. Illinois Enforcement Agency

They hired Dick Gardner, security consultant, to outline a physical proposal to make South Loop neighborhoods as safe as possible.

E. The City Council

They must schedule two public hearings to decide whether or not to grant the developers the necessary zoning changes to develop South Loop. They are required to consult with the City Planning Department before making a decision. Under the Daly administration they were a rubber stamp body to approve what the mayor told them to. With the mayor's recent death it is not clear how they still stand.

The other actors, such as the architects and developers have not yet been selected, or are unknown to this author.

The South Loop New Town "Log"

In order that a thorough case study could be written on individual development projects that went up in this New Town, it is recommended that a log be kept on each project. This would be specific information on the history of events and the roles played by key actors, which would be in addition to the analysis in the previous chapter. The information one could record would be 1) the data needed to compare it with other projects, 2) the record of key decisions affecting the design of the project, and who made them, and when, so that these choices can later be evaluated in the "context" in which they were made.

Case studies are useful because they help people evaluate why a project succeeded or failed, and to avoid the same mistakes in the future. It is hoped that the Chicago 21 Corp. and the eventual architects and developers will recognize the importance of having case studies and so will keep this information up to date.

The fundamental problem is what person should be held responsible for keeping this log, who would pay him, etc. This is still an unresolved issue, but perhaps this person could be employed by an independent research team that would be set up to guide the programming process. Or, if no funding could be found for this research team, someone in the employ, either of the Chicago Planning Office, or of the architect responsible for designing the buildings being studied, might be able to keep a record of this data.

The information presented earlier on the South Loop is very preliminary since no architects have yet been engaged for specific projects. The log for a specific project would document:

A. The General Background

1) Size of project - number of dwelling units

2) Size of site in acres, net and gross

3) Dwelling units/acre

4) Persons/acre

5) Price range of units

6) Economic data - government subsidies, cost of land/acre

7) Location - urban, rural

8) Drawings of site plan and apartment units photographs

9) List of amenities - swimming pool, day care, shopping, etc.

10) Percentage of parking spaces/dwelling units

11) Percentage of site coverage and recreational open space

This kind of information would enable a developer or a research team to evaluate a project and to compare it with others like itself.

B. History of Events[8]

1) When the land was purchased

2) Political decision that may have had a bearing on the design

3) Which consultants were hired at which stages of the design process

C. Analysis of Key Actors and Interest Groups and Their Roles in the Project

1) The client/developer

2) Government agencies

3) Vested interests in the area of a project

4) Architects

5) Engineers and other consultants

6) Commercial Users

7) Residential Users

8) The General Public

9) Private business interests

D. Lists of Designers and Developers Assumptions
(For more details see the design stage of the predevelopment phase in Chapter III)

This fourth part depends exclusively on the cooperation of the clients and architects, lists their assumptions about the physical and social needs of the users, and their objectives. This section of the log could have an accountability list developed by this independent research team, or the Planning Office, which requests that the client and designer demonstrate how they tried to solve user needs problems or could not, due to other constraints. Otherwise, or in addition to this "official" accountability list, the designers could read the material prepared for them by this team,

or the planning office which dimensioned the issues and drew their own hypotheses, developing in effect their own personal accountability lists.

The importance of this log should not be underestimated. The information it documents will form the basis of case studies done on the individual buildings eventually completed in the South Loop.

Footnotes

CHAPTER II

[1]Although there are no streets, the city is willing to build them as they are needed. There are presently utility lines running underground, that previously served the railroad.

[2]Quality is defined here as having high construction standards and extensive services.

[3]It should be noted that Mr. William Hartmann, a senior partner, at Skidmore Owings and Merrill, is also on the Board of Directors of the Chicago 21 Corporation, who are the developers of the first 53 acre package.

[4]The difference was that in the case of James Rouse, he had title to all of the land, but the Chicago 21 Corporation only owns these 53 acres. There are still almost 300 remaining acres in the hands of the railroad companies, the city and others.

[5]For a critique of the first proposal see Chapter IV - Open Space in Residential Neighborhoods.

[6]Evans Clinchy, Elizabeth Cody, Blyth Clinchy and Stan Legget, Diversity and Choice: On the Provision of Educational Options for Elementary School Students and Parents of the New Town in South Loop (n.p. planning paper I, Jan., 1975). School and Community: Putting Humpty Dumpty Together Again, planning paper II, Feb. 1975), Options and Alternatives (n.p. planning paper III, March, 1975).

[7]Sometimes so-called legal consultants on retainer are lawyer-politicians, who exert influence on city hall, although there is no substantiation for this being the case in the South Loop New Town.

[8]An interesting format for documenting what the roles of the different interest groups were, (in the making of key decisions that affected the ultimate design and management policy) can be found in: Clare Cooper and Phyllis Hackett, Analysis of the Design Process at Two Moderate Income Housing Developments, University of California, Institute of Urban & Regional Development, Paper #80, (1968).

CHAPTER III

A COMPREHENSIVE PROGRAMMING METHOD FOR THE SOUTH LOOP NEW TOWN

Introduction

The objective of this chapter will be to lay out the different phases in the life of a project, to demonstrate how a programming process needn't end with the design stage but can continue to be useful through the construction of a development and after it has been occupied. By understanding what events do and could occur in each of these phases, one can analyze when certain aspects of problems like density mixed use, recreation and open space and neighborhood planning should be addressed.

The process outlined here will be for the specific application to the planning of new residential neighborhoods in Chicago's South Loop. This process will give us a framework in which the issues in the next chapter can be discussed. The results of this comprehensive programming process would hopefully yield a "case-study," which would add to the body of knowledge in the field of neighborhood planning.

There are two major phases in the life of a built-form project--the pre-development and post-development phases. The pre-development phase covers the life of project through the early planning stages, the purchase of the site, the writing of the

building program design and construction. The post-development stage takes place after the buildings are built and as long as they remain occupied.

In the comprehensive programming approach described in this chapter the post-development stage calls for successive waves of inquiry into the "success" of the project. These are feedback studies conducted by a research team who might be paid for by the city, the Chicago 21 Corp., and the architects (and perhaps the residents) who could benefit from the information they find.

To conduct these inquiries successfully, it is necessary in the pre-development stage to identify the important issues and then to analyze them carefully. This can be accomplished with the aid of a literature search which would include case studies of schemes, projects and design approaches that have failed as well as those that have consistently yielded positive results. Consultation with "experts" would also occur during this time.

As part of this analysis the contradictory goals are identified, given the conflicting sets of interests. Minimum and maximum levels of <u>performance</u> are established that a solution could try to meet with regard to a given issue. Then the issue is plugged into the design process. (See dimensioning of issues in this chapter for more details on what is involved.)

This literature search in the pre-development phase can help the designers and developers to deal with issues and problems in a more thorough way than they might have done in the past.

For example, take the subject of density. Sometimes the only

question that is asked is how many dwelling units will we need to get on this site, per acre, in order to make a profit so that a program can be written specifying the given fixed number of total units that must be included in the design. A comprehensive analysis would also ask basic questions. For instance, how high a density can you maintain and still attract families with small children? What needs do the projected users have and how can they be satisfied at different densities? Given different levels of density, what amenities would these users expect?

A comprehensive programming process can also be somewhat circular because after occupancy, if the need for certain modifications becomes apparent, (as a result of feedback research findings) a sort of "redevelopment" can take place as modifications in the project are made. However, usually new physical changes may not be possible because of lack of flexibility in the initial design, lack of enthusiasm on the part of the residents or lack of cash to implement the changes.

In the case of South Loop, which is scheduled to be constructed in slow stages, over a long period of time, if the results of the feedback cannot be used to improve the same project that was studied, perhaps it could at least be utilized in the design of successive proposals.

The Pre-development Phase

The pre-development phase consists of several steps.

Pre-design Programming

The first few steps are taken by the developers (clients) and their consultants sometimes as in the case of the South Loop, with the aid of a government planning agency. This pre-design programming includes the usual site feasibility study, master planning documents, and an assessment of the financial attractiveness of a proposal. The clients analyze how many apartments, commercial space, etc., must be built and either sold or rented (given the costs of land, construction, financing and resale) in order for them to make a reasonable profit. Specific sites are selected. The decisions are made about financing, whether to try and qualify for government subsidies, etc., and a market target or user group is identified. Sometimes a market study is conducted.

The results of this pre-design programming (as much of it as the developers would reveal) in the case of the South Loop New Town, were recorded in the previous chapter.

Dimensioning the Issues

The next step is to list all the relevant issues like density, circulation, user needs, etc., and investigate different policies that can be taken regarding each issue and their consequences. In general, all issues should be examined through the eyes of as many of the future and current interest groups as possible. Some dimensioning of the issues has already been accomplished by the South Loop's planners and the Chicago 21 Corp.

We will discuss exactly how much more could be involved in

this step according to the comprehensive programming methodology. This information should be geared to do more than equip the designer with a broad background on a particular subject, like the topic of residential open space. It should be organized in a way that would help generate hypotheses[1] which can later be tested in the feedback stage. The research must raise questions like when should an issue begin to be considered, which "actors" should consider it and what stake do they have in the conflicting resolutions of a problem.[2]

This basic analysis of an issue is crucial to achieving a more comprehensive programming process. John Zeisel describes studying an issue from many points of view as "negotiating a shared community image."[3] We must all be able to understand how the different interest groups view an issue.

> A word like 'linear park' may well have different images associated with it depending on one's profession or position: landscape architect, highway administrator, well-travelled community person, insular community person, planner, bicycle rider, architect, park administrator, urban designer. The set of images an individual draws on when presented with a verbal concept can be called the individual's image bank. These are the pictures and words one sees and reacts to when a particular word is used.[4]

When issues are dimensioned, the different interest groups can learn how an issue like "a family neighborhood" or high density, can be a different image when viewed by developers rather than an architect or user. The purpose then, of dimensioning the issues for the scope of this particular thesis is <u>not</u> necessarily to produce a set of clear illustrated guidelines for the designer but rather 1) to explore the issue from many points of view (but especially the user's) so that the differing groups can understand each other's

problems, 2) to explain at what stages of the programming process must a given issue be considered, and 3) to present the research in a way that will assist the designer in generating explicit hypotheses and assumptions about the physical and behavioral needs of the users which can later be tested in the feedback analysis.

When the issues are dimensioned the limits will be defined past which the concerns of one interest group simply cannot override the others.

Performance Guidelines

The research should study how the 1) zones (public, private, semi-private, vehicular, pedestrian spaces), 2) places (laundry room, lobby, etc. and 3) parts (doors, windows, etc.,) should ideally perform, given a specific type of user.[5] Performance guidelines specify how an environment should work and what activities should be able to take place there.

For example, if work had to be done in a space a performance guideline could specify the number of footcandles needed to light the space, and how a person using it should perceive it in terms of openness and comfort. This would be preferred over a guideline that recommended a particular light fixture and furniture type.

Later, after the space was occupied it could be evaluated by observing the way people used it and asking them questions about their satisfaction with it. A performance guideline can be prescriptive--describing a space in terms of size, ventilation and materials but it would not specify the ventilation system, or the

floor treatment. In other words, good performance guidelines generate a wide range of solutions, which ideally take into account differing needs of various interest groups (such as the developers, the users and the management).

For example, the problem of the neighborhood street would be looked at from several points of view. Circulation: it would need adequate curb and sidewalk space to accommodate expected pedestrian and vehicular traffic to prevent accidents and tieups. Attractiveness, comfort and convenience: it should have bus shelters, adequate lighting, an interesting, differentiated facade, trees along it to provide shade and beauty. It should also have as many shops and building entrance lobbies as possible. (The theory being that these kinds of elements make the street popular among pedestrians and that the greater the number of people who use it the safer it will be.) Compliance with such a guideline would preclude the possibility of a developer erecting a garage with a blank wall stretching for any great length along the street.

Sometimes research is done for the specific purpose of setting up detailed guidelines that a designer should follow. Three different approaches on how these guidelines could be set up can be found in 1) Massachusetts Department of Community Affairs, Design Guidelines for the Elderly,[6] which was written as a set of instructions to the architects and developers who were working on the housing which this office sponsored; 2) The Housing Quality Program[7] written by the Urban Design Council of the City of New York, for the design of the middle class housing for which they were

responsible for funding; 3) Housing Generated by Patterns,[8] which were developed by a team at the University of California at Berkeley, which involves the actual designs of the project in the research.

In the case of the South Loop New Town, given the political reality such detailed guidelines as these would be unenforceable. The developers here are not requesting subsidy from any government agency for the middle class family housing they are building. The city needs and wants middleclass housing as much as the Chicago 21 does, and without the full cooperation of these businessmen the New Town may never be built. In addition the Department of Development and Planning does not have the manpower resources to review each project too carefully to see that it complies with very specific guidelines.

The only authority the city now holds over the developers is their right to deny the Chicago 21's request for a zoning change from manufacturing to Planned Development Zoning, which the developers need to build mixed use here. This right can be protested in court and overruled.

Another point about the usual guidelines that are drafted is that they seem to leave very little room for negotiation between the conflicting needs of the different interest groups. This is because they often make user needs the primary criteria for all evaluation, by whatever group would have the right to enforce these guidelines on the developers when, of course, political and economic interests play a key role. After all, there are many cases where the architects will be put in a position where they will have to

overlook the best interests of the user because of these other considerations.

If no guidelines protecting user needs can be enforced at least the programming methodology should try and encourage designers to be explicit and rationalize why they didn't solve a problem according to user needs. For example, the Chicago 21 Corp, who represent the Loop business interests do not want to see a retail district develop here that would compete with the loop. The architect, who may want to set up a retail commercial area along Clark or State Streets, beneficial to the needs of the residents, may be stymied by the developer's pressure.

Also sometimes one user needs issue overrides another and there simply is no best way to solve it. For instance, the Loop residents need as few entrances to buildings as possible to maintain security but this causes the activity to be concentrated in little pockets along the street and makes the rest of the street dead. Also, the more people there are using one entrance, the less anyone of them knows who their neighbors are and who are the strangers, which is bad for security.

The purpose, then, for the city, if they chose to go to the expense of preparing a refined set of guidelines like the type produced by the D.C.A., would be to produce a document which makes a best guess at analyzing user needs, behavioral and physical, so that these interests do not go unrepresented in the negotiating process.

Design Stage

The last part of the pre-development phase is the design stage.[9] Now the designers must try and propose their plans and drawings of alternative solutions taking into account the issue previously dimensioned.

The comprehensive programming approach requires that the designer produce an explicit account detailing his assumptions about user's needs, justifications for all major design decisions, and that he record them in a "log" like the one described in Chapter II.

The reason it is so important to document this kind of information as the project progresses is because few records or little correspondence are available after occupancy, when most feedback studies are begun.[10] On the other hand, one person, either working for the architect or as part of an independent research team can easily keep such a log, enabling a case study of the project to be more expeditiously completed at some later date.

The following are two ways the designers could keep track of these decisions.

List of Designer's and Developer's Assumptions

This list can merely be a free flowing account of different design features such as "generous landscaping through the site," "covered parking," or "single-loaded corridors" with a discussion by the architect of why he chose or the developer chose, to do it that way. Here they should explain what functional consequences they expect to occur as a result of these decisions and what their

assumptions were about people's behavior with regard to a particular feature. This is the designer's opportunity to explain what he would have liked to do but couldn't because of economic or political constraints.

Accountability List

This is a list written the other way around. Instead of listing a design feature and then discussing how it would work, this format states a particular problem like "safety in recreation area," "sunlight in apartments and open space," or "privacy for residents" and asks the designers to explain how it was dealt with. The designer need not list his assumptions in a separate list if he/she has nothing to add beyond the questions covered by this particular list.

The accountability list is derived from the dimensioning of the issues, preferably by an objective participant of the programming process. The city's Department of Development and Planning (DDP) could require that it be filled out as part of the conditions for its approval of any plan. It could be essentially a list of explicit evaluation criteria for them to discuss with the architect/developer team.

How detailed this list would be would depend on whether or not the city's D.D.P. decided to develop a set of detailed guidelines.

The Post-Development Stage

Introduction

In the pre-development stage all effort will have been

(theoretically) made to design the housing and plan the new town to meet potential user needs, based on the information available in the literature. In the case of the South Loop, where there is no existing community of residents to deal with,[11] there is, therefore, no community planning board to answer to and no nearby residents whose opinions can be solicited during this stage. If necessary, the information available in the literature on the needs of the potential residents[12] might be supplemented with data taken from a sample representing a surrogate user group. This is similar to what developers do when they commission a market study, before the final designs of all the apartments have been completed.

The main objective of the user needs research done in the post-development stage will be to root the design process in the real people most affected by it. This might be done through the various waves of inquiry where their opinions are solicited about (see next section) 1) the various remaining elements of the design that are still modifiable, 2) the truth of the various assumptions made by the designers and developers about their behavior and level of satisfaction (see Table 1-1).

The first inquiry could take place as soon as there were model apartments and enough of the development had been completed, to enable future residents to visualize what would be there. Developers often build models before all construction has been completed in order to reassure themselves that they have correctly predicted what the most popular layouts would be, and to encourage families to sign up. At this stage, because interested residents will fill out

applications, it can be determined how many families with children are moving in,[13] what ages they are, how many working mothers there will be, their incomes and needs and other basic statistical information. Both they and a surrogate user group, selected for a market study, could be polled to determine their preferences for apartment layouts, parking policies, recreational needs and choices of mixed use for the commercial areas that will service the buildings.

The purpose of this questionnaire is not only to give designers and developers a better idea of the user's needs, but to educate the consumers, give them choices and options and teach them to expect more from their environment. Hopefully, there will be an additional benefit. If the users feel that the management cares about them, and that they are expected to contribute their ideas and opinions, the chances of a community feeling developing early could be much better.[14]

The next inquiry could take place soon after the residents moved in. At this stage those assumptions made by the architects and developers, and other key actors,about the resident's behavior and preference, which we recommended documenting in the log (Table 1-1), could be tested. The researchers guiding these feedback studies can collect the kind of information established in rental applications in a form that can be processed by a computer, if necessary, so that statistical information can be easily analyzed and readily available. The last inquiry could take place several years later after residents had an opportunity to make necessary modifications.

Each development project can become a case study in itself,

TABLE 1-1

ANALYSIS OF DESIGNER'S OBJECTIVES

Design Feature	Physical Functional Consequences	Assumptions about Behavior, Difficulties & Satisfaction	Questions asked of Residents	
			Pre-development	Post-development
Low-Rise Buildings	.High Density of persons per acre .A lot of land is covered by buildings .All apartments have some private open space either with a balcony or on the ground .Stair access is necessary to at least half of the units and within many of the duplex unit .All families live within reasonable recognition and calling distance to the ground	Some middle-moderate income people will move here despite the high densities, because of the proximity to work, the amenities, the services and the Lake and beachfront and because they have at least some private open space. Residents will not mind the stairs because of the convenience of not having to wait for an elevator and being close to the ground This housing will be popular with families, especially those with small children. Mothers with young children will permit them to stay alone outside because they can call to them easily Security in the semi-public spaces will be good because surveillance is possible from the windows at this scale, and neighbors know each other	What kind of dwelling unit did you live in before moving here? Which do you prefer? What attracted you about living in the South Loop? Where do you (and/or your spouse) work? What is your income? Do you have children? Would you want a day care center?	How do you like living in a two story row house? If you could live in any of these projects (show 4 photos) with similar rent which would you choose? Do you mind walking steps here? Do you let your children play alone on the ground here? Do you feel safe here? Do you use the day care service?

TABLE 1-2

ANALYSIS OF DESIGNER'S OBJECTIVES

Design Feature	Physical Functional Consequences	Assumptions about Behavior, Difficulties & Satisfaction	Questions asked of Residents	
			Pre-development	Post-development
Balconies which can be modified	A mother with very young children can put up a grill from the railing to the ceiling	Mothers with small children who want to live in a high rise apartment will move here because of this feature	Would you be interested in changing anything about your apartment if you moved in here?	Are you satisfied with the way your apartment was laid out?
		A couple moving here without children will not feel that pressure to move immediately when they have a child		Have you changed anything?
	A family who prefers a larger living room will close off the balcony and remove the sliding doors	A family who enjoys some gardening but prefers the efficiency of a high rise apartment will consider converting the balcony to a greenhouse	What do you think you would want to change?	Do you own or rent this apartment?
	A family who enjoys gardening will convert a sunny balcony to a greenhouse		-The balcony -partitions -No. of closets -etc.	Are any changes you made working out as you expected?
				Do you think you would stay here longer because you <u>can</u> make changes here?
	Some families will not do anything at all to modify the balcony	Some people will like having a place to sit outside and will not change anything at all	How much money would you be willing to spend to make changes? Would you make the changes yourself or hire someone else?	

TABLE 2-1

ANALYSIS OF SPONSORS & CLIENTS OBJECTIVES

Objective	Physical Translation	Non-Physical Translation	Assumptions about Behavior, diffic.& satis.	Facilitating Factors	Questions asked of Residents	
					Pre-development	Post-development
To attract middle-class families to the South Loop	Attractive family sized units with good construction laundry and ample storage facilities. Day care centers constructed nearby Visual privacy between private open space Acoustic barrier between apartments	Monthly charges low enough to be attractive to this income group Families with small children or many children welcomed No discrimination on the basis of sex, race, creed, national origin, etc.	People will use public transportation People will use the amenities	Dearth of rental and owner housing in this price range in the city Location of S.L. offers easy access for commuters to the Loop Since the City of Chicago wants to see a successful development it will build parks, schools roads	What attracted you most to this housing? Why didn't you choose a suburban dwelling?	Can you hear noise through walls? Are you satisfied with the level of privacy here? What would you say you like most about your apartment, and least? How do you like the size of the rooms? Would you want any bigger, smaller?

if the history of the project and assumptions were documented in the pre-development stage, and then be followed up with concrete statistics and information on the actual user group's preferences. Finally, after these users moved in, they could be instructed as to how they could play an important role in modifying their environment.[15]

In this chapter, first some suggestions will be made on what aspects of the design might be modifiable, then strategies for implementing the feedback studies, appropriate to the case of the South Loop, will be reviewed.

Areas Possibly Subject to Modification Post-Occupancy in the South Loop

What aspects of the design could be conceivably modified pending the results of a feedback study? In this section is a list of items that might be designed for flexibility. Should it prove, however, much too uneconomical to design in these options, the user needs input could still be useful in the design of subsequent projects. Since any new development is bound to be more expensive than the previous ones, due to rising inflation, new ones taking advantage of this input would probably not gain any competitive edge over the earlier project's studied. In addition, these existing users would stand to benefit, if the results of a feedback study were used to develop new apartment buildings "next-door," because it would help insure that the kinds of neighbors these people would like to have would be attracted here. Also, high quality new developments would help maintain the neighborhood's high status.

How can areas be left flexible in apartments so that later modification is possible, and how can we be certain that anyone would want to modify it? Wealthy condominium buyers, who purchase apartments along the Lake Shore Drive in Chicago often hire architects and interior designers to tear down walls and renovate their apartments to suit their own taste. Middle-class, single-family homeowners often add on rooms, close in porches, etc. A look at any middle-class or moderate-income neighborhood will testify to this fact. The problem is that middle-class apartment owners often cannot afford to hire an architect or if they can the apartment is not designed with the idea of ever being changed.

One possibility (although this would have to be tested in the marketplace) might be to give South Loop's residents the "no-frills" base price of their apartment and a list of options they can add at their own expense (with varying price tags) later, to better suit their family's taste and needs.

The designers could communicate what these options were through the use of renderings, models, and lists of choices. The architect would be expected to develop alternate apartment layouts given the same fixed plumbing walls, circulation spaces and column spacing.

This approach is similar to what many consumers are accustomed to getting when buying private homes and townhouses in the suburbs and in buying cars. Usually a choice of cabinets, materials and finishes and occasionally even a choice of partition and closet location and number of bathrooms is available. Later, if the house

is too small and there is a balcony, deck, flat roof or private garage it usually can be adapted by the residents to some other use by their own expense.

Proposed here is that the management offer tenants, or at least the owners, a kit of components chosen by the designers and management, from which residents can choose appropriate parts, and alter their private space. The parts to be used on balconies would be chosen for their ability to harmonize with the elevations and for their quality, so that the adjustments in these multi-family buildings can be guided by aesthetic and quality controls. Of course, individual townhouses would have much more leeway in their choice of materials and design changes.

To attract as many residents as possible, the developers of the South Loop may want to consider offering the same kinds of options that are often offered to suburban homebuyers. The developer would supply the "shell" of the apartment finished with medium grade materials at the most economical price possible. He could then give each prospective buyer a manual with plans of his apartment showing the structural and plumbing walls with suggestions for ways it could be altered at his own discretion, with approximate price tags for the different options.

This shell could, for example, have a large undivided living-dining-kitchen area, generous enough to be subdivided into at least three decent sized rooms at the owner's added expense. In this way more middle-class families could afford the initial price at the outset. Later they could take out a home-improvement loan or

whatever, and add the improvements by themselves if they wanted to. This flexible living space could then become a) den, living-dining room,and work-kitchen, b) eat-in kitchen with a small family room and comfortable living-dining room, c) work kitchen, dining room, and living room, d) bar type kitchen with a breakfast snack bar separating it from the living room.

Half bathrooms could be large enough to accommodate a tub or shower later, if the owner felt the need. The apartments could include alcoves off rooms and corridors suitable for use as a) study nooks or workshop areas with a desk or sewing machine, b) places to display personal momentos or books, c) (after conversion) a closet for extra storage space, d) laundry area (if near a plumbing wall it could be converted and have sliding closet doors in front of it).

If windows were designed larger rather than smaller at the outset they would be more flexible because if a tenant needs more wall space or doesn't like the view, it is easier structurally to reduce a window rather than enlarge it.

Balconies also have modification possibilities. Since apartments cannot really expand,the possibility of later conversion of private balconies to other uses by the homeowner ought to be considered by the architects. Since, as we previously mentioned, elevations are shared by other homeowners, perhaps a clause could be put into the sales contract that only certain types of conversion from the 3-foot railing, using specified materials, would be allowed. Possibilities could be 1) an attractive floor to ceiling grill, so that

small children could safely play out on this open space, 2) a glassed in area to be used as a greenhouse or sunporch, and 3) a completely enclosed space in order to add extra interior space to an apartment as a sleeping alcove, a larger living or bedroom, etc.

The South Loop's planners and developers would like to discourage private car ownership as much as possible and to encourage residents to take advantage of public transportation. However, private garage space is often handy because it can be converted to many other uses such as a) workroom, b) family room, c) cold room for food and wine storage, etc. Out in the suburbs the garage is an inexpensive way of, in effect, adding on an extra unfinished room to a house. On the other hand, in the South Loop, land is supposedly so expensive that Mr. Bufalini, secretary of the Chicago 21 corporation, confided in an interview that a carport will run $6,000 and a garage - $10,000! Therefore, before private garages are added on to all townhouses, because of the increased flexibility they offer it must first be determined by the developer how many residents would be willing to pay for it.

The Communal Spaces

Of course, many aspects of the design cannot, at this stage, be altered in any way, (such as the decisions concerning general massing and siting of buildings, open space and roads, which are determined months, even years, in advance). They depend on concrete realities such as where present utility lines are located, where the closest mass transit stations and schools are, zoning and building

codes, economical and political considerations, etc.. as much or more than on user needs. These constraints are complex and critical to the planning and will often override social issues, which nonetheless must be considered.

One area where flexibility may be possible is in the design of the tot lots. Perhaps, its exact location size and choice of equipment can be decided within the first year after the residents move in. Of course, waiting until this time to settle this issue may result in having the residents split irretrievably with some users preferring it one way and others another way. Another possibility is for the developer to designate logical places in the buildings and open space where other additions can later be made at the owner's expense. For example, a childport facility might be added in the park area, for children to wait under if it suddenly starts to rain. If space has been allocated in the lobby or park near plumbing lines, communal toilet facilities can be added later. Space in the commercial area or recreational club house could be reserved for possible conversion to a day care center should the need arise.

These flexible areas will not become vague undefined space if the contract stipulates that money must be set aside, somehow, either out of the original construction budget or monthly maintenance fees, for the modification of the project's communal spaces. (In the second part of this section the discussion will deal with how these adjustments could be made and who would be responsible for them.)

Mixed Use Areas

Commercial and Institutional space can be planned along the exterior edges of the residential areas, along the main axis streets. If the residents are surveyed as to their preferences (before they move in), for services, then developers can try to accommodate them by renting out space accordingly. Though no marketing expertise is claimed by this author, it might help the developers in trying to convince a shoe repair, drycleaning store or supermarket to move in, if, for example, 98% of all residents surveyed said they would patronize them. Having a captive market, many of whom are expected not to own cars should encourage stores to move in.[16]

The problem is that sometimes developers who do not plan to manage what they have built, who are in a rush to make a profit will rent to anyone in order to get a quick return on their money. Consumers should be given an opportunity to react to having certain kinds of stores around the corner from them, which they would consider so objectionable that it would force them to move out or join a protest group. Knowing their feelings in advance may discourage developers from renting to such establishments. Also, demand for day care, health and family service centers and religious houses of worship can be determined from questionnaires. If sufficient demand is recorded, developers might reserve storefront space which they could rent out even to religious groups for services etc., especially until a large and established enough community develops which may decide to raise money for a more permanent religious building for their own constituents.

Strategies for Incorporating User Participation Post-Occupancy

In this section an anslysis of techniques for possibly eliciting community participation and measuring user satisfaction appropriate to the case of the South Loop will be made. The assumption is that the same research team who could be responsible for the completion of a case study on each development project might be the same professionals involved in helping the users to be active in the post-development design process. It would be their responsibility to educate the residents on ways in which the residents themselves can influence the management and modify their environment. Eventually, the researchers must be able to phase out their role altogether, leaving things in the hands of the users and management.

One approach would be to use the manual that could be designed by the management and architects mentioned earlier, specifying the rules and regulations of the project, as well as suggested design options and possible modifications users can make. The tenant's manual could have, besides the alternative floor plans for their apartment, a list of ideas for possible additions, which tenants could have added like a childport or a community greenhouse. These could be explained and detailed so that interested owners and tenants could see about getting one built. Residents can be informed of the fact that different amenities can be possibly added, because the necessary area has been included in the building and can be adapted for that purpose, such as a day care center or public restrooms in the lobby, etc. The objective of such a manual would be

to explain and describe to the tenants and owners all the flexible areas that have been built into the design, so that their imaginations will be fired up and they can look into having some of these and their own ideas implemented, with the cooperation of the management and their neighbors.

The First Inquiry - Before Occupancy

The first user participation strategy could be the questionnaire, because there will be no real user group to examine at this point, except those people who come down to the South Loop to look at the model apartments and investigate the possibility of moving there. If the developers were only to question these people as to their preferences, they would not get a truly representative sample of the kinds of people who may want to live here. In the first part of the fourth chapter, we analyze just what types of users could conceivably be interested in moving here. Perhaps a surrogate user group--a sample cross section of the population--could be paid to answer the questions we present in this section, in addition to any future residents that do come here to check out the possibility of moving to Dearborn Park.

The questionnaires could gather some basic statistical information about the future resident's background and family. Future occupants could have the opportunity here to evaluate a checklist of issues, especially concerning those aspects of the process that have the potential of being modified in the final design. (For example, management operation, landscaping details, playground

design, choice of mixed uses in the neighborhood parking policies and apartment layout). Other types of questions they could answer might be 1) their motivations for possibly choosing Dearborn Park as a place to live, 2) what kind of neighborhood they hope to find here, etc. Questionnaires generally consist of close-ended and open-ended questions. This first questionnaire could be close-ended so that answers can be coded for transfer to a computer by using separate answer blank sheets.

After reviewing many questionnaires that appeared in the other evaluation studies, the following information is typical of what is generally asked.

1. Age of applicant
2. Marital status
3. Number of children and their ages
4. Education level of resident (grade school, high school, B.A., higher)
5. Sex
6. Place of origin (region or country, party of country or foreign nation)
7. Length of residence in previous home
8. Description of previous residence -
   a) size of rooms
   b) number of rooms
   c) rental or owned
9. Size of apartment requested at South Loop
10. Employment of adults in the home according to sex
11. Income range of respondents:

Under $6,000	$6,000-13,000	$13,000-30,000	$30,000-50,000
low	moderate	middle	upper middle

These incomes may, of course, reflect the combined salary of two or more people contributing to household income.

The objective is to collect the minimum amount of data needd in order to construct user profiles. These profiles could help the

management to anticipate the services and amenities the users will need. For example, the residents can be classified into life-cycle groups that have similar needs, i.e., mothers with young children, teenagers, as well as interest groups, i.e., working mothers, commuters to the loop, hospital employees, students, etc.

The next part of the questionnaire could investigate the subject of mixed use, with the objective being to determine what type of non-residential use the residents would find more or least desirable. The format suggested here would be very time consuming to fill out and it could be left with the applicants or mailed to them, to return to the research office.

In this questionnaire they would rate a service or amenity in terms of its importance to them, and how close they would want it to their home, with a numerical scale from 1 - (highly desirable) to 7 - (highly undesirable) with 4 signifying indifference. Then they would be given six choices of reaction to an "amenity" or use they really disliked and asked to place a letter A-E next to the number, predicting their reaction.[17]

A. You would move elsewhere

B. You would actively protest

C. You would join an already organized opposition group

D. You would complain but not act

E. You would do nothing

F. Other

The purpose of these questions is to determine what, in the minds of typical middle class users, are compatible mixes of land use

in their neighborhood that would be either upgrading or at least not precipitate a decline. The following is a typical mixed-use questionnaire:

	On your block	On a neighbor-hood block	Within the rest of the neighbor-hood	Within the neighboring community
1. Hospital				
2. Office Building				
3. Bowling or Billiard Hall				
4. Police Station				
5. Museum				
6. Delicatessen				
7. Cemetery				
8. Gas Station				
9. Bar & Nightclub				
10. Y.M.C.A. or similar organiz.				
11. Public Meeting House or Town Hall				
12. Supermarket				
13. Church or Synagogue				
14. Coffee Shop or Cafe				
15. Day Care Center				
16. Private Medical Office				
17. Public Library				
18. Park				
19. Newspaper stand				
20. Coin Laundry				
21. Theater or Movie House				
22. Bank				
23. Post Office				
24. Community or Recreation Center				
25. Oil Refinery				
26. Community Greenhouse				
27. Amusement Park				
28. Pawn Shop				
29. Taxicab headqu. or Center				
30. Diner				
31. Junk Store				
32. Judo or Karate School				
33. Credit Agency				
34. Specialty or Trade School				
35. Parking or Storage Lot				
36. High Class Restaurant				
37. Corner Grocery - open late				
38. Club Fraternity - Elks, American				

	On your block	On a neighbor-hood block	Within the rest of the neighborhood	Within the neighboring community
39. Public High School				
40. Residential Hotel or Brdg.House				
41. Gov't Bureau (Soc.Sec-Post Off)				
42. Light Industry Factory				
43. Expensive or Specialty Store				
44. Fire Station				
45. Take Out Restaurant				
46. Open-market				
47. Wholesale or Outlet Store				
48. Lumber or Stone Yard				
49. Rest Home or Sanitorium				
50. Seminary				
51. Antique Dealer				
52. Funeral Parlor				
53. Public Housing				
54. Soda Fountain				
55. Transients' Hotel				
56. Power Plant				
57. Goodwill, Salvation Army or Used Furniture Store				

Assuming that the eventual sample is large enough (there are established methods in the social sciences for determining this), the information thus obtained from the questionnaires should provide certain answers for the developers. It should help them determine if their product has a wide market and whether or not they should modify apartments or the master plan to increase the demand, and whether particular amenities are needed. The researchers could keep all of this information on file, with a record of which of those people who later moved in here, mentioned that they would not mind being interviewed after they moved in.

Another probably more expensive technique to gather information from a surrogate user group would be to "observe" them going through their daily routines, in order to assess their needs. It is questionable how useful such information would really be and we don't recommend it.

The Second Inquiry - Post Occupancy

For the next wave of inquiry, conducted a few months after complete occupancy, another questionnaire could be designed, and either mailed to occupants and/or used in interviews. It would be directed at obtaining information on user satisfaction.

An interview usually involves a number of preliminary steps. First a letter is sent out identifying a research team--who they are, their independent status, and the promise that all information will remain strictly confidential. At South Loop, if the information elicited is intended to be used constructively to improve the projects post-occupancy, this aspect should be especially emphasized. People tend to be more responsive when they feel they are more than some research team's "guinea pigs" because there are rewards for themselves as well.

Interview questionnaires can have open-ended questions, in addition to any other questions which were not answered adequately in previous surveys. The open-ended ones could be directed at testing the assumptions and objectives of the architects and their clients, as documented in the log. Open-ended questions do not have multiple-choice, pat answers and require more thought. Of course, some assumptions can only be tested out in the field by observing

participants using the spaces.

Formulating questions that really test the assumptions is a very difficult task, not always successfully done. It has confronted all of the experts such as, Clare Cooper, John Zeisel, Norcross & Hysom, Phillipe Boudin, etc. Tables 1 and 2 show a format for organizing the material and trying to accomplish this. These tables are a modification of the work done by Clare Cooper, adapted to the case of the South Loop. Interviewing is costly because it must be done by an expert but itgives extremely reliable and valid information when done with precision and focus.[18] The ease with which the results can be interpreted is also important, because if the questions are written by skilled professionals, the appropriate questions will have been asked.

However, even experts often find this task quite difficult. For example, how does one formulate questions that tell us what kind of neighbor friendship patterns have developed and why. The questions must be directed at determining whether it was the result of the physical configuration that encouraged neighborliness, whether it was the homogeneity of the friends' backgrounds or the fact that their children played together in the playground, etc.

Another difficult problem to ask the right questions for is whether the differences in the facades designed by the architects are having an effect on user satisfaction. To adequately answer this, perhaps there is no "perfect" question. Therefore it is recommended that in the interview multiple strategies be employed to try and infer redundant information so that the credibility of the results

of the feedback study can be insured. Clare Cooper, in order to help the people in her sample understand what she was asking, used photography. For example, she would show them photos of different houses and ask them to explain which one they preferred and why, without trying to steer them.

Another popular method is to ask residents to draw a map showing their most frequently used paths. These maps, together with actual observation of users in their environment, in addition to questions, are necessary to determine why one pedestrian path is more popular than another and to make suggestions for improving the ones that don't work.

A major problem with the interview technique is getting a representative sample. The results of a study can be useless if only housewives are interviewed because the interviewers cannot work in the evenings when most of the working people are home. For more information on successful interviewing and observation of behavior techniques consult the bibliography.[19]

One purpose of this second inquiry is to remind the residents of Dearborn Park that they are a part of something special, of an exciting new town. Naturally, many people can be expected to be apathetic, will not want to be bothered by the researchers and will not care at all about whether or not they can alter their apartment or community. However, if there is a lesson to be learned from studying where the middle classes are moving (which we attempt to do later in this paper) than it is that they seem to be migrating to single family homes or townhouses and to communities like Oak Park,

where they feel they can have a voice in their own community, good schools, good security, a nice neighborhood and the ability to modify their own habitat.

Hopefully, by demonstrating to the residents how they will be able to find these characteristics in Dearborn Park, they will be encouraged to stay here and put down roots.

Showing the residents how to make changes will undoubtedly present a very big challenge. Who should show them, how should the control pass into their own hands and out of those of the so-called independent research team and the developers? One strategy is to have an owners' council elected by residents--with well publicized open meetings held in the local community room. The residents can perhaps question experts or vote on whether or not to increase the monthly maintenance fee by a few dollars, to erect a greenhouse or childport or to improve the lobby. However, we must acknowledge that much of this really depends on what a particular group of neighbors is like, how well they get along, whether or not there is a natural leader among them, etc.

In the end, even if this second inquiry fails to produce any real change, the results of the study can still be effective in providing the Chicago 21 Corporation and the Chicago Department of Planning and Development with the feedback that will help them to develop each <u>new</u> package successfully.

<u>The Third Inquiry</u>

After a number of years, especially if the second inquiry is

successful at generating modifications in the design another inquiry can be made using interviews and observation, which will measure the satisfaction of residents with their new environment over time. Such a study could be financed out of the original budget set aside for this purpose, when the buildings were constructed. New residents, as well as the architects and the city planners and developers would probably stand to gain the most from another feedback study.

Footnotes

CHAPTER 3

[1]Barry Korobkin, Images for Design: Communicating Social Science Research to Architects. (Cambridge, Mass.: Architects Research Office, Harvard Univ., 1975).

[2]Unfortunately, for this thesis no surrogate user group was available to represent the user's point of view and we had to rely on research only. However, the point of view of the developers was represented by the Chicago 21 & Urban Invest.

[3]John Zeisel, "Negotiating a Shared Community Image," Ekistics 251, Oct., 1976.

[4]Ibid.

[5]John Zeisel, Gayle Epp and Stephen Demos, Design Guidelines for the Elderly: The Dracut Competition, (Cambridge, Mass.: Harvard University, Mass. Inst. of Tech. & the Mass. Dept. of Community Affairs, 1975), draft copy.

A good example of performance guidelines for parts can be found in a document published by the Massachusetts Housing Finance Agency, "All in Together" Appendix VI, p. 61.
They make recommendations for high quality construction such as
a) using concrete planks for floors and masonry bearing walls instead of wood.
b) using masonry exteriors, which have an initial higher cost but lower maintenance and are more substantial looking. Wood has been found to wear more poorly under heavy traffic especially with children.
c) hardware for doors and windows should be high quality because cheap materials show up quickly resulting in high tenant dissatisfaction with windows that get stuck.
d) interior finishes and details, kitchen and bathroom cabinets and hardware, indicate levels of quality. For example, how well the ceramic tile is laid, the type of floors--parquet, wall to wall carpeting, etc.
e) landscaping and exterior surfaces--there should be good sized trees, adequate ground cover, well maintained, attractive lighting fixtures.

However, since the South Loop New Town is not nearly near the working drawings stage of the design phase, when guidelines on 'parts' become useful, this thesis contains little research directed in that area.

[6]John Zeisel, Gayle Epp and Stephen Demos, op. cit.
In this book all the issues were put in an introductory chapter which

included a literature search. Then the guidelines were separated into three categories:
a) site and zones (a list of requirements for physical and behavioral performance, design guidelines, drawings of sample schemes, commentary on each scheme based on the guidelines, drawings for the road paths, orientation to site attributes, etc.).
b) places (for places such as building entry or laundry room the manual provides a physical description, its relationship to other spaces, its physical specifications and characteristics and furnishing requirements.
c) parts (detailed working drawings type checklist of how parts of a building such as stairs, doors, windows, ramps, etc. should perform).

[7]Urban Design Council of the City of New York, Housing Quality Program: A Program for Zoning Reform, (New York: Urban Design Group, n.d.).
The list of criteria they developed for evaluating the environment was categorized under 1) neighborhood impact, 2) recreational space, 3) security and safety, 4) apartments. For each given subject or issue a number of specific quantifiable characteristics which can be read and measured off of the architect's plans, pre-construction are listed together to define quality levels. The architect is then required to have met a minimal level of these 'quality' characteristics in his plans in order to be in compliance with the zoning code.
What is unique about this method is that it recommends using the city's zoning regulations to monitor the housing quality. One drawback that it has is that the system developed gives no credit to the developer for adding mixed-use amenities such as shops and office space.

[8]Christopher Alexander, Sara Ishikawa and Murray Silverstein, A Pattern Language which Generates Multi-Service Centers. (Berkley, Calif.: Center for Environmental Studies, 1968); and Alexander, et al., Housing Generated By Patterns, (Berkeley, Calif. Center for Environmental Studies, 1969).
They analyzed what all the components were in a building, which they called "patterns." A pattern could be a place in a building, an activity that must occur there, or even a person or interest group that must use it. Each pattern has its particular problems that must be solved. Alexander arrives at solutions for each of these patterns and fits them together in an actual building or master plan.
This guidelines method was developed for use by the architect in the design process. It has weaknesses, though. The research statement which cites findings and explains the issues to which a solution to a problem or pattern must address itself, lead the reader to the conclusion that there is one perfect solution. Also as Barry Korobkin notes, the patterns are not organized into an easily comprehensible manner because "information on various scales and concerning various levels of abstraction are presented without distinction."

Its value, for us, is in the fact that although a feedback evaluation process was not part of the 'patterns,' the format they set up requiring the architect to explicitly state his assumptions about the way the building will be used, would make an evaluation very easy to perform after occupancy.

[9]This stage has not yet officially begun in the South Loop except for the designing of a master plan.

[10]Clare Cooper and Phyllis Hackett were able to compare housing projects they did feedback studies on, revealing many insights, by assembling this kind of log. See Cooper & Hackett, Analysis of the Design Process at Two Moderate Income Housing Developments. (Berkeley, California: Institute of Urban and Regional Development, June, 1968). However, since no log had been kept they had to devote an overly extensive amount of time collecting this information.

[11]Except some 350 people living in transient living quarters in a local Y.M.C.A.

[12]Since the developer is the Chicago 21 Corporation, who would stand to gain more than mere profit if the residents were satisfied, they may wish to more closely examine the issue of user needs.

[13]For example, Norcross and Hysom established that among "pioneer" families much fewer have children, than the kinds of families attracted to more established communities.

[14]Of course, there is the risk of raised expectations and high disappointment if none of their suggestions are carried out.

[15]There have been vastly more farsighted programs for housing systems, that allow the user much more freedom to make changes post-occupancy, but which are so futuristic, that we don't discuss them in this paper. They would probably need the kind of funding only the federal government could supply. We recommend for inspiration Habraken, N.J., Supports, (New York: Praeger Press, 1972).

[16]Mr. Bufalini told me that only 5,000 square feet of space was planned because the business community was adamant about not setting up a retail district which would compete with the Loop. Perhaps there should be more investigation into what kinds of services and shops people will not take public transportation to get to, anyway to be sure that adequate commercial space is being planned here.

[17]This has been adapted from Julian Wolpert; Anthony Humphrey; John Selig, Metropolitan Neighborhoods: Participation & Conflict over Change, Commission of College Geographies Research, Wash., D.C., p. 72, N.S.F.., pp. 45-47.

[18]William J. Goode, and Paul K. Halt, Methods in Social Science Research, (New York: McGraw Hill Book Co., 1952, p. 184.

[19]Some sources for learning the basics in interviewing suggested by Randolf Hester, op. cit, p. 143. Methods in Social Research by Goode & Hatt; Survey Research, by Backstrom & Hersh; Research Methods in the Behavioral Sciences by Leon Festinger; Empirical Foundation of Education and Research, by Sox.

For an interesting review of observation techniques useful in outdoor residential neighborhood spaces see Hester Randolf, Neighborhood Space, (Stroudsberg, Penn.: Dowden, Hutchinson & Ross, 1975, pp. 110-125.

CHAPTER IV

DIMENSIONING THE ISSUES

Introduction

In this chapter three general issues were chosen for dimensioning that relate specifically to the South Loop New Town. Since Chicago 21 has engaged special consultants to study education and security these issues are discussed only peripherally, as they relate to the other three.

In addition to these three topics this chapter recognizes that "who the users will be" is an issue in itself that must be settled before any of the others can be dimensioned. Therefore, the first part tries to answer this question.

The Neighborhood - A Social Definition With a User Group Profile for the South Loop New Town

It is the conviction of both the central business district leaders, in the loop and the social and urban planners of Chicago's Department of Develop.and Planning (D.D.P.) Agency, that in order to attract middle income families to the South Loop New Town it will be necessary to establish the kinds of residential neighborhoods that will appropriate for family living. The "Guidelines"[1] ask what is a minimum development package. Their answer is one that creates

a nice neighborhood.[2]

Definition of the Problem

Since the term neighborhood is so often bandied about with little agreement on what it really is it will first be important to define it. In this chapter only the social aspects of the neighborhood will be discussed.[3] Here composite profiles of potential residents, based on previous studies of urban residential patterns will be developed.[4] What intelligent guesses can be made about the type of families attracted to inner city living? How many children do they have? How old are they? What kinds of outdoor games do these children play and how should outdoor spaces be designed to accommodate them? How much money do the adults make and who are the breadwinners? Are they single, divorced, widowed, married and do both partners work? What kinds of services would these people need and where should they be located? What are the characteristics of the "right-kind" of neighborhood?

Knowing this kind of information will tell planners if there are a lot of working mothers anticipated in this community, and whether they can afford private day care if it were provided. They would have to think about the particular design needs of these women. Lastly, it is important to know what kinds of housing variety and type attract this group of families, based on past records.

It is agreed by most that any initial development in this new-town-in-town must establish its residential character immediately, in order to make it a magnet for new similar development. In addition, the planners and businessmen hope that the residents will

be families--that is to say couples, probably married, or widows, widowers or divorcees with one or more children, and people with children, commonly look for well-established residential communities.

The first part of this chapter will concentrate on who the users could possibly be. This will be followed by an analysis of which of these users the planners and developers of the South Loop would want to attract, based on research which has been conducted on the dynamics of successful neighborhoods.

The Users

Most of Chicago's middle class families live in single-family or two-three storey walk-up apartment buildings. Almost all new middle-class family units are being built in the suburbs. This is a very segregated city in that it has real racial and ethnic lines drawn between geographic districts.[5] The city itself contains many first and second generation Americans, as well as new immigrants in its ethnic neighborhoods, and most of the metropolitan area's black population.

For white people, who earn enough money to buy their own homes, there are several communities within Chicago where they can choose to live. Most, though, prefer to move to the suburbs, when they want to start a family--where they can get more land, cleaner air and usually better schools, for their money. The South Loop New Town is not trying to draw away any of these families. On the contrary, it is being designed as an alternative place to live for urban dwellers, who for the various reasons which will be made clear,

don't want to live in the suburbs.

There are a fair number of middle executives who are tired of commuting to jobs in the loop from the suburbs. Many of them are the kinds of people who could probably afford Chicago's expensive Lake Shore Drive apartments, but would rather live in a more family oriented environment. Some of them, whose companies are out of the city's limits "talk about missing the excitement and stimulating contacts of the city . . . they also complain about being company captives and smothering in a suburban cocoon of paternalism."[6]

For most black families, on the other hand, the suburbs are closed. Despite legislation, these communities have managed to maintain a pretty high (98% or so) white composition.[7] Therefore, there is a big market for all of the middle-class blacks, who have not at the present time been able to break down the door to the suburbs, but are demanding superior housing especially in integrated family neighborhoods.

City of Chicago employees may also want to move here, since they must now reside within the city's limits in order to maintain their jobs.

From the income models developed by R. J. Johnson, it was demonstrated that the higher the income the greater the likelihood of choosing an apartment rather than a single family unit, "clearly suggesting a relationship between socio-economic status and life-style."[9]

In addition, according to Peter D. Salins, Chairman of the Department of Urban Affairs at Hunter College in New York, who has

been studying the integration of New York City's neighborhoods says that one of the keys to success of those areas which integrated naturally, was their relative affluence. "The higher the status of the neighborhood the easier integration will be."[10]

Another motivation for living in Dearborn Park is the shorter distance to work. Although some studies have shown that it was not an important factor, their sample usually consisted of suburbanites or students who weren't working.[11] Johnston found that for female clerical and factory workers in Vancouver, Canada, finding a home close to work was very important. In another very recent study done on the population in Downtown Boston, 75% of the sample studied said it was very important, and these people did work in Boston.[12]

The low density suburban environment is most attractive to the child centered families, with few strong community or kinship ties to other parts of the city, and relatively few working mothers.[13] The typical residents of central city neighborhoods preferred the accessibility of workplace,leisure and friends. The family oriented city dwellers were the well-to-do, who prefer established neighborhoods and who no longer need the frequent displays of status given by a new home, or members of other income groups with strong ethnic ties to their neighborhood.[14]

Another group which has found the multi-family lifestyle attractive, though not necessarily in the inner-city are the "garden-apartment" people analyzed by Norcross and Hysom in their study Apartment Communities.[15] They studied developments in Kansas City, where there is a good variety of housing and people can pick what they really like. They chose three housing developments that had a

wide cross-section of residents.

Their objective was to compare which type apartment mixes, sizes, rents, physical appearance and leisure time facilities attract different residents.

His conclusions are as follows, the mix along with the monthly rentals determine whether single, divorced, and/or family people with children will live there. The higher the rent, the higher the age of the occupants. The greater the number of studio and single bedrooms the more young and single people. Single men can afford more for housing than single women (they earn more), and are more attracted by swimming pools, club houses and lounge bars.

The average number of children was .22 per family compared with .6 to 1.0 for other apartments in Kansas City. By studying occupations they conclude that the pioneering apartment people (who will move into a complex still under construction) have less "prestigious" jobs, only 31% of these occupants were in professions or management, 51% were in white collar or sales, jobs, close to the city, and were less educated and had fewer children than residents of more completed apartments.

They also checked the rental history of the tenants in order to determine who the most stable group was, because rapid turnover is expensive and decreases the stability of a project. They concluded that the older the tenants were, the more stable they were. (This confirms Johnston's family cycle theory that the average age of the hard-core renters was 47.) Half of the residents they studied had moved from single family homes and were looking for all the space

they could get. Many of the divorcees owned homes before but had tired of caring for them.

Among the most popular reasons for renting were that it was less money, maintenance free, (house and ground), less responsibility, that they were planning for the possibility of a transfer, unmarried, that they were not ready for a house, don't want a house, it was a temporary expedient because they are new here, and the convenient use of club facilities. Locations were chosen for their access to shopping and transportation.

It should be pointed out that many working divorced parents, or parents without partners will find city life easier because of the convenient services, such as day care, shopping, and after school activities like piano lessons and the community center will be within walking distance.[16] For one parent raising children alone, the inherent problem of chauffering them everywhere, endemic to the suburbs, can be a terrible strain.

The Boston Redevelopment Authority Study

The latest study done on Boston's high-rise[17] apartment buildings in the inner city confirmed the fact that higher income people are being attracted to high-rise living. The population they found were mostly adult. Over 90% of the households contained only one or two persons, compared with a city wide figure of 2.9.[18] Only 3% had children under 18, whereas the city average was 42%. Only 35% of downtown residents were married compared with 57% for the rest of the city.[19] 81% in these apartments earned more than $10,000.

The citywide figure for this is 35%! The median rent level in these homes was $300 compared to $126 for the rest of the city. The percentage of the population downtown earning $25,000 was ten times the city average.[20] The amount of education is considerably greater in this sample (85% had some college) than that of the rest of the population (30% for the rest). 75% of the downtown residents were managers and professionals (compared with 22.5% citywide) and 13% clerical workers (26.9 citywide).[21]

The overall age distribution of these adults was similar to the city as a whole and since most of these people did not have children, the condition of the public schools was irrelevant. 80% of the households had one or more persons employed, and the median income was 18,365.[22] Building security was most important to them followed by space and room size. They recorded high satisfaction with their building's security and leisure facilities.

One of the notable discoveries was that although a high percentage walked to work, 60% of residents owned cars compared to 53% of all Bostonians, and 55% felt that car ownership was essential.[23] Lastly, 80% felt that convenience to shopping was very important.[24]

One conclusion to draw from this study would be that since there were so few families with children in those high rise apartments, and most units in the South Loop will be above the ground (only 335 out of the first 3,000 units proposed will be townhouses) then there will be few children in Dearborn Park. This is not quite so. The Boston housing was very expensive. The families who have children often cannot afford such expensive apartments. Also the

housing was not designed with enough playgrounds, open space or day care services to attract families with children. Another point, Boston has the same problem most inner cities have which is poor quality public schools. Families with children would not only have to pay high rents but for private schooling as well.

Another more fundamental conclusion one could draw is that attracting a so-called stable, long term middle-class family population is not necessary in order to keep the inner city lively and functioning. Instead perhaps the South Loop's planners ought to accept the fact that there would be a high turnover here as long as they could keep all the apartments occupied with groups of single working people sharing apartments and with well-to-do couples without children--the kind of population found in Boston's downtown. This would be fine except for the fact that in Chicago most of this population is already living either along the prestigious Lake Shore Drive area or Chicago's New Town neighborhood, in very adequate housing. In addition, any new development that would draw residents away from the recently restored New Town area would just lead to the decay of yet another inner city neighborhood.

Therefore, the South Loop New Town should stick with its original objective of also trying to fill the housing needs of families with children (especially those under 18).

In the next section the problems of the homogeneous vs. heterogeneous mix of residents will be explored, followed by an analysis of which users the planners and developers would want to attract, in order to establish stable family neighborhoods here.

The "Nice" Neighborhood: a Social Definition

The classic treatise on the subject of neighborhood is Suzanne Keller's The Urban Neighborhood.[25] She notes that the neighboring activity is very complex and has many dimensions including "the frequency of neighboring, its priority, intensity, extent, formality and location." Except in some of the old ethnic neighborhoods there has been a measurable decline, she notes, in neighboring activities as a primary source of material and moral support, one of its original functions. The urban dweller no longer depends on his neighbors for information and current events, etc.

Keller notes that the presence of multiple sources of information and opinions via mass media, travel, voluntary organizations, and employment away from the local area have in most modern U.S. communities usurped the neighbors' old role. Today many people have more differentiated interests and desires, hobbies they want to pursue, as well as differentiated rhythms of work, resulting in a lowered inclination to neighbor unselectivity. These factors result in lesser amounts of shared free time available for leisure spent visiting the neighbors.

Fried and Gliecher noted that Keller's observations about neighboring activities hold true more for middle class people than for the lower classes. For the middle-income group homes tend to be defined by the four walls of the dwelling unit, extending perhaps to the surrounding lawn. Beyond the middle income person's property, space becomes public.

> that is, belongs to everyone, hence no one. In striking contrast, the lower class resident does not make these sharp distinctions

> between public and private space, for him home is a locale, an area. The neighborhood is an extension of the dwelling place and evokes the same sense of belonging. Hence, when you relocate him, you dislocate him; he cannot transfer his home, he cannot take it with him.[26]

Oscar Newman noted how important it was that the space outside the home should be an extension of the private space for low income families. In his book Defensible Space he demonstrates how this is not possible in the present design of high rise public housing, in New York, where all areas outside of the dwelling unit were considered public.[27] His population group consisted mostly of black and Puerto-Ricans. On the other hand, the neighborhood Fried and Gliecher studied was a low-rise mixed-use ethnic neighborhood--Boston's West End. There people derived their satisfaction in a large part "from the close associations maintained among the local people, and from their strong sense of identity to the local places. In turn, people and places provided a framework for personal and social integration.[28] Although it can be argued that in the Fried and Gliecher study the reason the whole neighborhood was "home" to these people was because they shared a common ethnicity as well as economic class and that this factor is as important as the physical environment. This may be, but Newman's high-rise single loaded corridors certainly discouraged neighboring, as did the lack of stores and shops on ground level as part of the complex, which might have become the "places" these residents would have felt attached to.

The reason all this is important for the design of our new town is because if lower-income people have a different view of their neighborhood and different needs than middle income people, will it

affect whether they can live next door to each other? This is, in fact, the fundamental controversy of the homogeneous vs. heterogeneous neighborhood. The problem in discussing it is that researchers all use these terms differently. Does homogeneous refer to a shared cultural background, religion or age (young families, swinging singles, etc.), economic class, social class or race of the residents. Is it all, or maybe some of these things? Looking at the migration pattern of middle class people to the suburbs it would appear that they are seeking homogeneous neighborhoods in terms of land use, economic level and race. What kinds of heterogeneous neighborhoods do function, with people of different religious, races and classes living together?

Some heterogeneous districts began as homogeneous ones, and are often described as "changing" or "grey areas." They usually have crime rates higher than the norm. Others, located in the inner city developed naturally, like Greenwich Village, the Upper West Side and Brooklyn Heights, in New York.[29] These latter neighborhoods, which are heterogeneous in <u>all</u> respects, are unique, though because they have such a high percentage of artists, political "liberals," college faculty, all groups with a reputation for tolerance. Other so-called natural integrated neighborhoods in the suburbs, like Laurelton, N.Y., are heterogeneous in racial composition only, because all of their residents are of the same social and economic class.

Many people have tried to understand why homogeneous groups of people like living together, in what John Friedman (1972) terms

an "affinity environment," Gerald Suttles (1971) calls the "resulting sociopatial pattern, a system of ordered segmentation" and David O'Brien (1975) refers to as the "autonomous community."

These spatially bounded social environments are based on voluntary residential choice and are characterized by a shared preference for salient attributes such as ethnicity, life style, income, occupation, age, family status and religion. Friedman says that these environments minimize the psychological stress of urban living--the crowding, dearth of nature, open space, while maximizing access to specific social amenities desired by the population. This would include specialized food markets, religious schools and places of worship, social clubs, a particular housing style and density pattern as well as educational and recreational facilities which evolve (or are created) in response to sizeable aggregations of populations with a shared environmental preference. He notes that "affinity environments are supportive of group life."[20]

Often people within this environment see their lifestyle as ethnically superior to that of persons in the larger society. They "see their withdrawal from the larger unit as necessary to preserve their ideals and to prevent contamination from the corrupting influences of the status quo."[31] This need to segregate oneself is found also in European and Islamic cities. It is the fundamental way in which people maintain their traditional modes of social life as they adapt to urban living. These affinity environments help people avoid danger, insult, and impairment of status claims.[32]

Assuming that the affinity environment is an accurate

description of the homogeneous neighborhood, what then is a community? In Albert Hunter's[33] recent analysis of Chicago's communities he had difficulty identifying ones of equal size and population, the way Burgess had done earlier, in the 1920's. Hunter suggests that such definitions are now artificial. The unified conception of the community as consisting of residential areas (neighborhoods) surrounding some central focal point (usually shopping) just does not define the varied reality of today's urban areas. This is because that central focal point defined by Burgess and earlier writers was conceived of as being in a central location most frequently in the form of a center. "The community was seen to extend from the intersection of two major streets, with retail stores located at this point and with distinct neighborhoods located in the four quadrants of the grid. Communities, therefore, were thought of as functionally integrated trade areas, with homogeneous residential neighborhoods surrounding the trade center."[34]

The functional retail definition of a community has now been refined because of the increased mobility of the population by automobile, together with the creation of fewer and larger scale shopping centers. However, when Hunter interviewed people, he discovered that they still identify central locations. Although these focal points consisting of shopping, the local steel mill, community centers, parks and school complexes may be less functionally important, he concludes that they continue to have great <u>symbolic</u> importance because they integrate these separate areas around a base.[35]

An interesting community to look at is one in Manhatten, in New York City, called the Upper West Side. Here is a residential area where all incomes and races live "together" but in separate buildings and usually on different avenues, but with minute geographic distances. Although it often is called a neighborhood, it is in reality a community. Its boundaries are Broadway--the major commercial street running north-south down its center, 72nd Street, the commercial street running east-west down its center, Riverside Park along its Western edge, and Central Park along its eastern edge; and it has numerous focal points such as Lincoln Centers and numerous schools, etc.

Some of the streets have apartments for only one income level but most of them, especially the side streets have expensive renovated brownstones side by side with low-rise tenements, public and luxury high-rise housing. Although this area is dangerous in terms of its crime rate, it is stable because few people are running from it out to the suburbs. The affinity environments or homogeneous neighborhoods that are created within the Upper West Side community seem to exist by virtue of Manhattan's high densities. This factor has created a large enough population pool there, so that enough "like" people live in the same general area that they can find each other. Also, there are a wide variety of stores along Broadway catering to different population groups. It is as if several amorphous neighborhoods have formed with no real geographic boundaries within the Greater West Side community. Hyde Park is an example of the same kind of community developing in Chicago.

Therefore, what appears to be a heterogeneous neighborhood is actually more like a heterogeneous community within which there are several homogeneous affinity environments.

Lee differentiates between the homogeneous neighborhood, (his definition of this is similar to Friedman's for "affinity environment") and the "unit neighborhood." The latter is described as "generally larger than the others (homogeneous or social acquaintance neighborhood), in its physical aspects, covers a wider area and contains a balanced range of amenities: shops, schools, churches, clubs, etc. In its social aspects, what is often an appreciable number of friends are scattered over a wider area with far less dependence upon the immediately adjacent streets. . . . The unit type tends to be heterogeneous in composition of its population and the kinds of houses they live in."[36]

The difference then between the homogeneous neighborhood and either the "unit neighborhood" or heterogeneous community is size and level of amenities. While an affinity environment would consist of several hundred families, a community would have several thousand.[37]

An Analysis of the M.H.F.A. Study

An interesting study was conducted for the Massachusetts Housing Finance Agency, analyzing the user satisfaction for housing they financed. What is unique about this agency is that they insisted on having an income-mix from the lowest level to market-income (middle income-unsubsidized) in all of their projects. Developers in a time of economic recession went along with this

revolutionary idea because there were at that time no other building funds available. The Mass. Housing Finance Agency (M.H.F.A.) were delighted with the results of their study which recorded success at mixing income groups in their housing developments. One should, though, look carefully at what strategies they had to try to insure their success.

The level of satisfaction of the tenants was not the same for all of their projects, but varied directly with the level of design, construction and maintenance as well as range of income mix. Not all projects had market tenants, and only the ones which did, had really high satisfaction levels. In order to attract these unsubsidized tenants apartments had to be well designed--spatious, well-laid out and well-constructed, competently managed and well-maintained. According to tenants' responses a competent management was one that was unreceptive to minorities. In fact, there was a dismaying correlation between a small number of minority families (or none at all) and high levels of satisfaction. In addition, the projects that produced the highest satisfaction levels were located in higher income communities, had older smaller families in them, with few children, and were virtually all white.[38]

It should be noted that although this group was economically heterogeneous, to some extent they were culturally homogeneous. They were older, assimilated white Americans with few ethnic ties. In fact, in all the projects, despite all their fine efforts, they were very unsuccessful in recruiting Black residents. In most of the projects there was an average of only 7% minority residents and

they were usually in the same occupations, making as much money as their white neighbors.[39] Also all individual tenants were handpicked for stability and reliability. This can be crucial especially when trying to "engineer" a socially heterogeneous community.

Clare Cooper noticed how important the stability and reliability of the tenants were in a study she did of a low-income, but socially heterogeneous project--Easter Hill Village. The first population group that moved here was racially integrated, and had stable, responsible people. At that time, the project was a great success. Over the years, though, since many of these families were upwardly mobile, as they achieved more economic success they wanted to move out of their low-status housing, which they eventually did. The management here was not discriminating, and vacancies went all too often to black, fatherless, welfare supported families with histories of alcoholism, drug abuse and crime.

These families had so many problems of crisis proportions that many did not have the time or inclination to maintain their homes or yards. The project began to take on a very shabby, rundown look. It became associated with the social problems that the people who now lived there had, and soon after became a distinct failure compared to what it had been like, when its first occupants moved there. The perpetrators of serious crimes represent only a small minority of low-income people--but it is they who strike fear into the hearts of both the low and middle-class populations. The difference is that middle class families, especially the white families can escape the crime, at least partially, by moving to the

suburbs. It is also unfortunate but true that there is a higher violent crime rate among poor people, especially black poor, than for middle-income people. Much of the blame for this can be placed on white society. Many black people meet job and other types of discrimination daily, and are very frustrated. Many of the offenders inherited a legacy of unstable family life from the pressures borne down upon them by the depression of the thirties, which hit minority groups the hardest. None of this can be denied. However, in our free society no one can force middle-income whites, many who harbor prejudices (no matter how unjustified), to live with low, or even moderate to middle income black families.[40]

The fact is that most blacks who can afford it would like to escape the crime of low income neighborhoods as much as anyone.

It seems, then, that there is a big difference between mixing rich and poor and mixing races. In the M.H.F.A. projects there were very few black families. In Chicago, a particularly racially segregated city, it is going to be a challenging enough task to encourage middle class whites to move in together with middle class blacks. If this New Town population were made even more heterogeneous by accepting low-income residents, which would increase the chance for a high crime rate and downgrade Dearborn Park's reputation as a status address, market tenants and owners of all races may be discouraged from moving in here, defeating the objective of the New Town.[41]

Some other points about the Mass. Housing study were that they chose especially suitable sites for housing, usually in low-density

or middle density areas, and they were almost all (except their housing for the elderly) in garden apartment complexes. This is in sharp contrast to Dearborn Park, which will have only high densities, a lot of high rise apartments and located within a high-density environment. Also the M.H.F.A.'s apartment projects which had the greatest number of market units, did the least to inform their residents of the low-income mix and when they did, it prompted moveouts. [42] Those people on subsidies were instructed not to reveal their status to anyone. This is crucial because if it were common knowledge the housing would lose its status.

The South Loop, in order to keep attracting the upper middle class residents must maintain the importance of Dearborn Park as a high status location.

> Why should address be an important status symbol? The modern large city according to Wirth (1938) is a large densely peopled area of unlike individuals, most of whom have no direct or indirect contact with each other. In small communities everyone is known to (if not by) everyone else and each individual can assess the status of all others within that society.[43]

R. J. Johnston asserts that, excluding the few non-conformists, most individuals wish to advertise or conceal their status, seeking status displays other than the all important income and occupation of the person. This cannot merely be done with an expensive home. Since few people oversee it, it must also be located in certain streets or districts within the city. "Areas are known to contain dwellings of a certain type and value, so that one's status can be determined from one's address."

Another important factor which was mentioned as affecting

the success of the Mass. experiment was the fact that the highest quality of construction and maintenance was demanded in order to attract the market tenants, but these benefits accrued to all tenants. This policy solved another problem. Middle-class people often want their own exclusive neighborhoods, because they pay most of the taxes, work hard and usually have most of their life-savings tied up in their home. They want to preserve their property values, and fear an influx of less affluent neighbors, who cannot afford to maintain their homes in accordance with the general neighborhood standards. In M.H.F.A. this problem was eliminated by subsidizing housing maintenance costs for moderate and low-income tenants with essentially middle-income taxes and rents, thus giving everyone homes of equal quality.

This approach, though, is not universally applicable because the average taxpayer will not want to pay the inevitable tax increase that would be necessary to finance, build and maintain economically heterogeneous environments of this type.[44]

Conclusion

In conclusion, it would appear that there is no one typical family that will move to the South Loop, but that it will be an especially attractive alternative to several groups. Firstly, the middle-class black families, who either cannot find housing in the suburbs or prefer city life; next, the older middle-aged couples of all races, who previously owned homes in the city and now want to relinquish the added housekeeping and maintenance burdens in favor

of an apartment. These people may even have college age commuting children, who attend the nearby campuses of the University of Illinois at Chicago Circle, the University of Chicago, the Illinois Institute of Technology, and the new Loop College. (They are all accessible by public transportation from the South Loop.) Another group would, of course, be the faculty and staff of these colleges, many of whom may prefer an integrated neighborhood, but have not been able to find suitable housing in Hyde Park. (This neighborhood has many old lovely homes and apartment buildings, is integrated, and is located just east of Chicago University.)

Young married couples, early in their life cycle, who want to be near the city's cultural attractions and their jobs, and other families of all ages with both spouses working, who need the amenities and conveniences of high density living, should be attracted here. Civil Service workers, many of whom would have preferred to move to the suburbs, but now must live in the city to comply with the new residency law, may move to Dearborn Park. The last group would be the single parent households, for the reasons already mentioned. This group especially if many of them move here, may find their social life easier in the New Town.

Who will the South Loop's planners in the Chicago planning department want as a population group? They would favor a range of incomes from $13,000-$30,000 but in similar quality dwellings to insure the status, success and high-user satisfaction of the neighborhood. They would also favor attracting as many families with

children as possible. These two requirements are troublesome for the developer. Firstly, the moderate income apartments would require subsidized funds to build and maintain which are not now readily available, and anyway usually "come with strings attached."[45] Secondly, in order to attract children they will have to build in special amenities and insure that there are good schools, something which will be difficult and is bound to cut into their profits.

While the planners will favor trying to attract as mixed a racial group as possible for social and political reasons, the developers, a more pragmatic lot, may fear loss of white tenants if too many black families move in and may try to discourage having a black population higher than 30%.[46]

The decision about who the target population will be is made early in the programming process, mostly by the private developers and the architects will have to design an environment for this group. Then, in the post-development phase, the future management group will take over these decisions, trying to weed out potential residents who they feel are undesirable from all the applicants.

The present policy of the Chicago 21 Corporation which is <u>not</u> to try and get subsidized funds for the middle-income housing has serious implications because it may severely limit who can afford to live here and therefore how many residents they can possibly attract. At the present time they expect the rents and condominium prices to be so high that only families of income ranges of $20,000 or more will possibly be able to afford them. The question is why would such families, especially the ones with grown children), many

of whom can afford expensive private homes in the city's still functioning neighborhoods or along the "Gold Coast" (the Lake Shore Drive), a much more prestigious address, be pioneers and move here?

One possibility might be that they have school age children and that the mothers work (one reason for the fact that they have a high enough income to move here). For these families the Gold Coast, a street with one high rise tower after another, is not attractive because it has no play space for children and is not exactly anyone's idea of a "family neighborhood," the way it was defined in this paper.

On the other hand, many of these working mothers may be divorced, and even if they are not they do not want the responsibility of maintaining a private home and need to have amenities like shopping and day care very close by. Therefore, the only way to attract this large population group (over 50% of married women work today) is to provide adequate well-designed and safe open space for their children to play in and the proper kinds of amenities.

Another group that would make good residents would be those families that cannot afford the high cost of houses these days and high rents will discourage these residents too. The young married couples who fall into this category usually try to save as much money as possible for a down payment on a house and would probably be loath to spend as much money on rent as the 21 Corporation anticipates charging, especially when there still are apartments available in so-called grey areas for much, much less.

The point is that it might be advisable for the Chicago 21 Corporation to aim to attract as many of the residents as possible who might be interested in moving here, given the obvious risks of developing a New Town. Therefore, before they decide not to provide apartments in the high rises appropriate for families with young children, or to spend much money on the recreational open space and especially before they decide not to seek any subsidized funds for the middle-income housing--it might pay for them to take a second look. Perhaps it could just be that with their present policies they will only attract a population group that is very satisfied with their present housing conditions.

Physical Parameter of Neighborhoods

Does the "nice" neighborhood also have a physical definition? The answer is clearly yes. 80% of the respondents in a Columbus, Ohio survey replied to the question of what is your neighborhood,[47] with a physical description. Although there are the numerous social definitions just outlined, designers or planners may not be able to create a neighborhood in a social sense. They must nonetheless design a physical setting for that set of social relationships (Gans 1967). It is necessary to identify what the physical characteristics of the neighborhood are in order to "program" this New Town. The programming problems of designing a neighborhood are analogous to those involved in designing a single building. In the letter one must determine the adjacency requirements of different rooms, how much space is needed to accommodate the activities

scheduled to take place there, what types of materials and finishes would be necessary and what kind of circulation systems should connect the rooms. On the larger scale of the neighborhood similar problems arise except that now the "rooms" are apartment buildings, townhouses, parks and shops. The "corridors" are now the street that connect these built forms.

The physical aspects which define neighborhoods are the paths, edges, nodes and landmarks (from the works of Kevin Lynch and his expounders)[48] as well as the streetscape and architecture, the ambience, and the level of maintenance. These variables are interdependent but for the sake of clarity they will be discussed one at a time.

A literature search which follows was conducted to define these characteristics. Carr in his article "City of the Mind" (1968), explains how concepts and definitions of neighborhood are formed. The urban environment is so overloaded with stimuli and information that people simplify their experiences by choosing objects to remember for their form and familiarity. We retain images of only a few perceptual features (imageable element, Lynch 1960) to classify each unique experience under some symbol, usually verbal category like a named street or neighborhood.

> A person's localized activity patterns are an important factor in achieving a conception of an area. The neighborhood is still the locus of a substantial proportion of behavior (Lee 1968, Foley 1950, Young & Wilmot 1960, Gans 1967, Smith Form, Stone & Axelrod 1956, Williams 1958). The activities are repetitively carried out in the same context which leads to familiarity, liking, a sense of home territory. Further, these

use patterns determine the resident's exposure to physical environment areas.[49]

Our daily localized activity patterns are partly limited to a specific territory with which we identify. We seem to depend on these reliable patterns to simplify our lives, to eliminate at least some of our daily decision making, leaving more mental energy free to act on the new stimuli we receive each day. Because of the need to develop these habits we memorize certain physical features of the environment that contribute to the acting out of these patterns. This is a key point. After all, why is it necessary that there be any memorable aspects to the environment? The answer is that first of all they help us carry out our daily routines, easing tensions, etc. Therefore, why not then design an aesthetically pleasing environment (one whose physical cues are attractive as well as functional). Secondly, it would appear that since the South Loop needs to establish its residential character immediately, it might help to give this area clear boundaries, with interesting lively pedestrian paths, and some landmarks which could distinguish it from the central business district above it and Chinatown below. A more detailed explanation of the physical distinguishing characteristics of neighborhood follow.

Physical Cues

What kinds of physical cues in the environment do we respond to? All sources agree that this is culturally determined. The best analysis of American perceptions available was done by Kevin Lynch (1960). He breaks down the environment into five categories: paths

(circulation routes), edges (physical boundaries), nodes (major activity centers, off of circulation paths leading to the district), landmarks (distinctive built form objects of all kinds, buildings, statues, etc.) and districts (similar to what was termed previously a "unit neighborhood").

A neighborhood contains nodes, is defined by edges, is both bounded and penetrated by paths and is sprinkled with landmarks. Through our daily patterns we interact with people in the district, and begin to feel we belong to a group and identify with the neighborhood. After a while, we can describe it verbally, in terms of Lynch's definitions. Based on work done by Zanaras (1968),[50] Wilmott (1967)[51] and others it is apparent that when there are clear edges to a district its residents are pretty much in agreement on what its physical boundaries are. These boundaries can be created in a number of ways. For example 1) land form and watercourses, 2) change in land use (i.e., a district whose interior land use is residential with a commercial strip along the edge would be a better defined neighborhood than one with several commercial centers dispersed between the residential blocks, 3) major circulation routes especially with heavy traffic or a highway. Naturally, though "the boundaries of a person's activity or use patterns and his network of social interactions are not necessary congruent with those of the area he conceives of as neighborhood."[52]

The simple juxtaposition of areas having different internal characteristics (i.e., closely spaced townhouses in a detached house

type of suburban neighborhood, or changes in lot size per home, or setbacks) helps us to describe and remember a neighborhood.

The South Loop New Town site is situated in a location where it already has definitive boundaries (see the illustration on the following page). To the north besides a change in land use to commercial, there is a radical change in scale achieved by the super-dense high-rise towers and buildings of the central business district, as well as the entrance to the Eisenhower Expressway. To the west is the Chicago River. To the South is Archer Avenue, a long diagonal street, standing out in a grid of N-S, E-W streets, with a distinctly different neighborhood--Chinatown--just below the New Town. The eastern boundary is least clear.

In order to reinforce the river boundary, and make it attractive, the Department of Development and Planning of Chicago wisely proposed the public funding of a green strip along the river, a park which would be 50' at its minimum dimension. For the purposes of attaining a distinct edge to the district to the north it would be beneficial to introduce a residential character immediately, with a mixture of low and high elements together with open spaces and green areas. Later, this strategy could be evaluated by asking residents to define the boundaries of their neighborhood through the use of maps and verbal description. Another boundary to define would be that vague one to the east. One way might be to make it commercial and line it with shops and services. This strategy would have other advantages which will be discussed in more

detail in the section on mixed land use.

The 53 acre parcel which the Chicago 21 plans to develop first, has no natural boundaries of itw own. Therefore, it might be advisable if the designers of the master plan make an effort to create some kind of edge around this community. This could be done through a change in scale, land use and design of the architecture.

Landmarks or focal points can be a variety of things at many different scales. They can be historic sites or monuments, or the local shopping center. They can be tall enough to spot at a distance and used as an orientation tool for visitors, or difficult for the uninitiated to find. Mainly, they are built objects of unique interest in an otherwise homogeneous environment. In Dearborn Park, the Chicago 21 Corporation has wisely chosen to renovate the Old Dearborn subway station into a school and "human resources center " to create a link to the past and a landmark for future residents.

Nodes occur at major circulation routes intersections, and are significant if they attract major activity. They work together with the system of paths. In successful residential areas, ones which give people a choice of location, there are lightly, moderately and heavily trafficked paths or streets.[53] There are streets that have only housing and those with mixed use (commercial or educational) and separate design criteria for both.[54]

The Chicago planning department has expressed the goal that there be as much separation of vehicular and pedestrian traffic as possible. This idea has been recognized since ancient times,[55] and can be accomplished through the use of ramps, bridges, separate paths

and separate districts (i.e., a pedestrian shopping mall). Also pedestrian paths can be afforded special protection from the weather through the use of arcades.

The Architecture and Streetscape

The architecture and streetscape can also contribute to the quality of a neighborhood.[56] The streetscape is actually what is viewed along the system of paths by both pedestrian and vehicular traffic.

> Just as architecture is in many ways the physical form manifestation of personal values, the form of the street setting and location of objects within it reflects the values of resident users and local governments. Such variables as the presence of lamp-posts, location of sidewalks with reference to streets, sizes of houses and yards, design of houses, and type of building materials, may be used to answer questions about neighborhood. Where one is in the city, what type of people live there, which actions are appropriate in this place, and how important this neighborhood is to the rest of the city can be inferred from the environmental cues expressed by building and street design.[57]

Thus the greater the amount of care and attention paid to these aspects the better the design quality. What is especially noticeable about the cityscape as opposed to suburban streets is its special attraction for pedestrians, not only for those people riding around in vehicles. The developers of South Loop will have the tricky assignment then of designing an environment pleasant for both riders and pedestrians.[58]

Pedestrians notice the details in the environment, like the small courtyards, shrubbery, storefront windows, building entrances, street furniture such as benches, lights. Their walking patterns are of great interest. They seek shortcuts, low to moderate vehicular

traffic, lively and interesting paths (especially when no shortcut is available or they have more time). They like to pause, to stop and talk to a friend, windowshop or rest. They need spaces especially with high activity levels where they can enjoy passive people watching.

One of the main advantages of city life is its power to generate a surplus of amenity. Gorden Cullen, an urban designer, points out that one building in the country stands out as architecture while several standing together in the city have the power to give people visual pleasure that none can give separately. His analysis of how buildings can be arranged with respect to each other and to the paths and open spaces (and voids) between them, which form the total streetscape, are especially relevant to the planning of a new town in a city. He is interested in how these built form objects communicate to the public.

Selected here, from his casebook, are a few of his insights into how we subconsciously or consciously perceive the cityscape. [59]

Creating places--these are public open areas which are usually defined by the buildings sited around them. Sometimes they define spaces with identifiable boundaries that people feel comfortable in. For example, a courtyard enclosed on three sides with the third side bounded by the street, or under arcades (especially in very sunny or rainy climates. Plazas can be places, especially if they have a focal point like a fountain or statue. They can be enhanced by a change in level or a different paving pattern, the addition of benches and trees to provide shade and nature, or of a landmark

building to provide glamor and a focal point. These "places" can be the so-called transitional spaces spoken of in the literature-semi-public or publicly owned areas which invite people into them, provide somewhere informal for them to stop and chat besides the busy street or in the privacy of their homes.

Other examples of transitional spaces are on privately owned land. They can be a small private park or plaza off an office building or any place designed for shoppers to rest in a retail shopping area, or even in a large apartment building courtyard. What all these "places" have in common is the rest they provide the city pedestrian and dweller from the bustle and ratrace of the street. Here, loitering is encouraged; without them the city is dead.

Other points Cullen makes need his illustrations for a real comprehension of their effect and meaning. They have to do with the sequence of movement of the pedestrians through a townscape. For example, a dynamic townscape needs slight alterations in building alignment,variations in setback and projections which can interact with the temporal qualities that come about as times, seasons and light changes the shadow pattern and feeling of the street, and the tone and appearance of the visual world.

All pedestrian environments are <u>not</u> alike. The residential streetscape poses unique problems in the city. People's homes must reflect something of their personality and the residential streetscape is made up of these homes. The problem is how one can create an environment where a house can be a symbol of self in a multi-family environment, which Cooper noted is so essential.[60] Social

scientists and architects alike have noted that people need to display signs of occupancy, to make their living environment as personal as possible.[61] For most middle income people, the private single family house is the only medium through which they can accomplish this objective.[62]

On the other hand,

> the urban rich accept apartments because they generally have a house somewhere else; the elderly seem to adapt well to apartments because they offer privacy with the possibility of many nearby neighbors, minimum upkeep problems, security, communal facilities, etc., and for young singles or childless couples the limited spatial and temporal environment of an apartment is generally the ideal living arrangement.[63]

The compromise the middle-class families (whom the city and the Chicago 21 Corp. hope to attract here) will have to make would be to live in high-rise apartment buildings or in townhouses and two-flats, where asserting one's individuality is more difficult. The kinds of facades which lend themselves to differentiation help to create a more personal, residential, smaller scale environment. For example, if living room windows are different from kitchens and bedrooms, or if residents can point out their apartments through their own distinctive curtains, shutters, venetian blinds on the windows, floor level (if it is not too high) and objects on the balcony like plants, outdoor furniture, etc., the environment will take on a distinctly residential character.[64]

There are buildings which have been designed in such a way that personalization is impossible. The Smithsons criticized Mies Van de Rohe's 860 Lake Shore Drive building in Chicago, with its "contained facade" (or well-finished look with house cells) because

of its insistence on an understated public face with the only places one can individualize on the inside. They found this treatment very inarticulate. At I. M. Pei's Kips Bay Apartment houses in New York, brown shades were placed on each window in order to hide the highly colored curtains, plants and interior decoration of dwelling units and to maintain the "purity" of the facade. However, every time this author visited Kips Bay, few if any of the shades were pulled down.

Another important aspect of this streetscape is the key role the local shops play in forming it. The current proposal being considered for the first 53 acres clumps all of the shopping in one 5,000 square feet area and calls for having no stores along the street. It would be a terrible pity if this plan were carried out. These convenience stores which provide groceries, hardware, cleaning, laundry and shoe repair services, etc. can liven up a street with their store windows and lights, for pedestrians. One of the more frequent urban blights is the local shopping strip with angle parking in front of the stores. Parking should be off to the side so that this sidewalk space (or mini plaza-enclosed perhaps by a U-shaped layout of stores) can be the domain of the windowshoppers. Also, older, retired people like to just sit along retail streets and will even bring their own folding chairs if no benches are provided. Mothers with baby carriages can stop and talk to each other, and small children can play outside of stores while their mothers shop inside, if adequate safe sidewalk space is provided. Of course this space can be made even more attractive through

landscaping, differentiated paving patterns, trees, benches, light fixtures, etc.[65]

Ambience

A pedestrian's environment is limited by the built form objects that define the circulation paths he takes and what he may look at.[66] Therefore, whether the type of lighting fixtures the designers choose for the South Loop are standard or custom, or even sufficient, whether the street furniture is pretty to look at and comfortable, and the quality of the landscaping--these considerations will all contribute directly to the status of these neighborhoods. In fact, in a study done of several suburban garden apartment complexes in Kansas City,[67] it was found that residents[68] would pay more for a quality environment as long as the dwelling units were adequate. The study concluded that when people were given a choice between a project with a superior environment or one with superior apartments the environment came first! A quality environment was defined as having very attractive landscaping, a lot of open space, lower density, an impressive clubhouse and pool, miscellaneous recreation facilities and attractive exterior design elements. The higher the quality of these amenities, the more important they became as a determining factor for attracting people. The conclusion seems to be that token, mediocre communal facilities and landscaping do not attract middle-income residents, especially if they are built by sacrificing the quality of the unit.[69]

These characteristics of the environment--nodes, paths, boundaries, landmarks, the architecture and streetscape design should

enter into the programming process of the South Loop New Town from the master planning stage through the completion of the design process. The actual user group will have little influence on the decisions made in these areas. It will be controlled mostly by the architects and developers. The results will depend on their design ability, sensitivity and cost consciousness. The city planning department of Chicago will also have quite a bit of input because the success of this private venture depends on public funds for streets and parks. The future users of Dearborn Park will have to rely on the judgement of these planners and designers, and hope that their needs are taken into proper consideration. The point here is not to instruct competent designers on how to make streets interesting and lively. There are many excellent texts on that subject.[70] Rather we would like to emphasize how the attraction of this new community, especially since it has no established reputation, will have to depend on appearances, especially at the beginning, so careful attention ought to be paid to the physical characteristics that social scientists find help people identify a neighborhood. (More suggestions for the design of the streetscape are made later in this chapter in the discussion on "Open space in residential design.)

Maintenance

The last major factor that contributes to urban design quality and a neighborhood's status is the level of maintenance. Often this aspect is out of the designer's and developer's hands. However, the

Chicago 21 should be wary of risky schemes which leave too small a profit margin and have overly expensive upkeep built into their designs. The sad consequences of poor planning in this regard can be seen at Cedar Riverside,[71] a New-Town-in-Town designed in Minneapolis. There, when the managers-developers were faced with severe financial problems related to this project, they were forced to cut back on the quality of services and maintenance. This further compounded the problems which beset this project.

Good maintenance includes keeping trash out of sight and regularly collected, making repairs as needed, keeping the grounds and lobby clean and the landscaping tended, etc. This will probably be the area over which users will be able to exercize the most input along with the managers. Certain design decisions can aggravate this situation or alleviate it. Many researchers have noted that as distinctions between private, semi-public and public space are made clearer through the use of physical demarcations like fences, separate entrances to townhouse dwelling units (as opposed to a shared porch), individuals will take responsibility for what they consider their area.

The worst maintenance problems result when several families have to share these duties in a common hall or stairway. Therefore, planners and architects for the South Loop's projects should be alert in the latter half of the design stage to see that these territorial details are included to prevent potential problems. A logical and inoffensive place should be set aside, on the drawing boards, for garbage cans and dumpsters from apartment buildings and

townhouses. Thought should be given to the selection of washable maintainable surfaces and materials in common spaces, in this latter part of the pre-development stage.

Finally, in the post-development stage, with the use of observation and interviews, the success of the design of the physical parametersof the neighborhood, can be evaluated. Residents could be asked to draw a map of their neighborhood with the aspects most significant to them on it. From these maps one can determine which streets are most imageable or convenient, and whether any of the community buildings, shopping centers, or Dearborn Station are landmarks. Questions would try to determine how they like the neighborhood, and why, what brought them here, how do they give directions to visitors on how to get to Dearborn Park, how they would describe their neighborhood to a stranger. Residents could be asked what they notice in the environment when they walk down a particular street, and why they choose the paths they do. Observations could be made on the paths people take most frequently, level of maintenance, etc.

One last point, which could be evaluated post occupancy is whether the streets with higher levels of activity are really safer, as predicted. To document this the researcher could check police statistics to see where the street crimes that are reported occur, and also with the management and residents to find out where they feel safest.

Residential Density and Mixed Use

Two of the most fundamental issues in the planning and development of Dearborn Park, which will require critical decision-making through the programming process, are that of its density and mix of land uses. Density is usually defined as housing units per acre. (If it is per gross acre, then all open space--public, private, street and rights of way are included. If it is per net acre then it only includes the housing, parking, and semi-private communal open space.) The land use is defined as the type of use (residential, commercial, educational) permissible by law on the land. In Chicago, like in most major U.S. cities both of these issues are defined by law in the zoning regulations, where the use and density are specified. The latter is governed by means of its F.A.R. ratio or floor area ratio (which determines by a formula how much mass of building can be built given a certain size site). A building's height and setback requirements are also specified here.

The objective of this literature search on the issue of density and mixed land use is to determine at what stage in the programming process are decisions affecting density and mixed land use usually made, by whom and what the implications are of different choices. Also we will try to determine where they might be made in order to obtain better design for the users.

For example, the research suggests that if the number of dwelling units is established at the outset (according to the developers' need for profit margins, etc.) then so must the user

group, because if the density is too high past experience has proven it will only be attractive to certain types of residents--those who are very rich and those who cannot afford to live elsewhere. Also given a severe shortage of decent housing in a reasonable price range, people may be forced to adjust to a poor housing solution which did not take into account their needs for daylight, privacy, peace and quiet. The problem is how much psychological and physical damage will they incur in the process. What are the limits that people should be expected to endure?

Definitions of the Problem

The major questions concerning density are what are the pros and cons of high vs. low density, high density low-rise vs. high-density high-rise, and what amenities are necessary to make high density living attractive. Since one of the chief advantages of urban living is the proximity of services, which can only be possible by legally allowing mixed land use, it will be necessary to investigate which uses are compatible with housing.

Zoning

First of all, what are the current legal restrictions on the use of the land. At the present time this area is zoned at M2-5 for manufacturing. The developers are applying for a zoning change to R-8, one of the highest residential densities allowed, and for a "Planned Development" permit. The latter will allow them to build mixed land use on this property, to add commercial, educational and

recreational spaces, and to avoid the usual street setback requirements. The reason they have cited for needing such a high allowable overall density is that it will enable them to place low and high rise buildings around the city in a way that they and their master planners feel is most appropriate and in order that they get as many units onto the site as they claim they will need to make it profitable. All plans are subject to the approval of the city planning department of the City Council.[72] Therefore, for legal as well as the social reasons (which will be demonstrated) the issues of density and mixed use are inevitably intertwined.

Most of the programming decisions on these issues will be made by two interest groups, based to a large degree on economic considerations, a considerable time before a user group materializes. As was mentioned, it is in the developers' interest to spread the cost of the land over as many units which he can sell as possible, hence to build the housing at the maximum density. Their problem (in the New Town) is that because there will be few subsidized units, there will be few guaranteed customers and they will have to compete in the free markets for middle-class clients who can choose to live anywhere.

The second interest group is of course the Chicago Department of Development and Planning. They would like to see an increase in taxes on this largely undeveloped under-utilized area. Politically and economically it would be to their advantage to see as many middle class families here as possible. Therefore they can be expected to

be pro very high densities. Their role, though, will also be to act as surrogate users looking out for the interest of the future residents. The danger they must guard against is in approving a density which is too high, or a mix of land use which is too noxious, to attract these families, or keep them here once they move in.

The goals of the Planning Depart as spelled out in their book of guidelines are:

> The character, appearance and impact of new development on available land south of the Loop should be that of substantial medium density development. . . . The scale of the development would be that of a community housing 30-35,000 persons in more than 13,000 dwelling units in a broad range of building types ranging from single family, or "townhouse" dwellings to multi-family, multi-story structures. The predominant characteristic of the mix of housing types must be its ability to attract and accommodate families, particularly those with children. . . . The primary objective in developing a new community in the South Loop area should be the preparation of an environment for family living, starting with units of adequate size and design, which are well-located with respect to recreational resources and the broad range of community facilities and services.[73] (underline mine)

This statement of goals is followed by some suggestions for carrying this plan out, which seem rather logical. For example, higher intensity development would be located where there are presently more services--toward the northern end. The suggested apartment distribution would be efficiency units 15% max, efficiency and one bedroom units combined 25%, two bedroom with 45% max, three bedroom units 30% minimum, and four or more bedrooms 5% minimum.

On the other hand, they expect statistically ½ child per two parent household. In this way the majority of units will have a "family" consisting of two adults in one or two bedroom units. Since many single parent families are expected, though, it can be assumed

that many families will consist of one adult and two or more children.

However, with a projected population of 32,000 people, all of the densities they project from 30 units/acre to 96 units/net acre are quite high. New communities in the United States average 2.5 living units per gross acre.[74] Maximum units per acre recommended according to standards for healthful housing for one family detached dwelling is seven per net acre of land.[75] Other respected authorities recommend similar densities,[76] in suburban areas for families, but up to as many as 30 units of garden apartments in urban areas. Low rise high density schemes have also been proposed that take into account many of the social problems that families living at high densities are confronted with such as privacy, daylighting, etc. One such scheme reaches as high as 38 units per gross acre.[77] All units are small attached townhouses for moderate income tenants, and rise three to four stories with two duplex apartments stacked one above the other with a private backyard for every apartment, but communal parking (no private garages).

The point these figures demonstrate is that although the planners may be calling for some three to four story townhouse units, it is at very high densities, not the medium they refer to. Also, there are no respected authorities who recommend as high densities as these planners do. In fact, the first development on 53 acres to the north will have an average of 81 units/net acre. At these densities, one can have quite a bit of variation--single attached family homes, three and four story economical walkups, and mid-rise

buildings 8-10 stories with perhaps a high rise at 20 stories.

In order to visualize what density numbers mean in terms of the physical environment, here is a sort of crude mental massing study.

Assume an average mid-rise slab is 60' x 150' or 9,000 square feet per eight apartments/floor for six floors, housing an average of 50 units and requiring 1/5 of an acre of land at 250/units/acre. Assume all parking spaces are tucked neatly underneath it on two levels. For high rises, given the same dimensions but 20 stories high, these buildings will house 160 units apiece. Next assume average townhouses are situated on lots 25 x 45 ft. wide and will each house one family with a car and a tiny private garden, or 39 single family duplex units/net acre. If we have three and four story townhouse units increasing the plot size to accommodate two units, two cars and a private garden, we can assume 1,500 sq. ft./ 2 dwelling units or about 58 units/net acre, or about 174 people/acre.

For the first 53 acres the present Chicago 21 proposal calls for 335 single family townhouses, 895 mid rise units and 1,770 high rise units (380 of them elderly). Assume the 335 townhouses are on 9 acres, that the 895 mid rises are on 4 acres, and the 1,770 high rise units are on 3 acres. Subtract 15 acres for streets, right of way and circulation between the 3,000 units. This leaves 22 acres of open space for the families living off the ground. This may sound like a lot until you realize that there are 121 families sharing each acre of open space. Of course this illustration takes it for granted that there are no unsightly open parking lots and that all

cars are parked under the houses--a rather expensive solution. In this case, the average density is 80 units per acre, the lowest density is 39/acre and the highest 92/acre, and 2,665 of the families are living off the ground.

It should be emphasized that in the Chicago Metropolitan area, at the present time, middle income people living in stable urban neighborhoods choose mainly two and three story walkups, single family detached homes and townhouses, and that the scattered mid-rise elevator buildings from 8-12 stories are located in a sea of low density homes.

In the study, The Cost of Sprawl, high density high-rise is considered 30 units per acre--which means residents in their sample had a lot more semi-private open space than the South Loop residents will have. In fact, the townhouses, those researchers analyzed, were 10 units/acre and the three story walkup,15 units/acre. What this reveals is that the planners and developers intend to not only house all the residents at high densities (not at the medium they claimed) but to reach their figures well over half of the population will be housed above the ground in elevator access buildings and with very little open space per resident.

The developers at Chicago 21 and their consultants, Urban Investment, are under the impression that the lack of open space can be made up by the close proximity of these homes to Chicago's lake-front recreational areas and the public parks the city will develop along the River. However, these spaces are public and not conveniently located in their "backyard" and will probably not be safe for

strolling about in the evening after work, or especially after dark.

The problem to be studied is how high can the densities get before the disadvantages become so overwhelming that they cannot be overcome. In The Costs of Sprawl, it is found that the psychic costs--personal perceptions of security, status, privacy, etc., began to increase as density got higher, especially in high-rise housing.

Luxury housing is, of course, commonly built on prime expensive land such as we have here at even worse densities as high as 300 units/acre. The difference is that wealthy people have housekeepers and nannies to watch their children. They can go on a vacation or to their second home (probably a detached single family residence) to get away from the crowding and other ill effects of this lifestyle. On the other hand, poor and moderate income people who need subsidized housing are often forced to live in high rises because it is usually the only way decent housing, which they can afford, is being built.

The rub is, will middle-income families who can choose to move to the suburbs (if there is nothing in the city they find suitable) move here instead? Perhaps they will if the density can remain low enough to be able to exploit the positive aspects of urban high density and overcome the negative ones. Development projects then should not be evaluated according to some magic density figures but as to whether or not they are sensitively designed to meet the user's needs.

High Densities vs. Low Densities

There are many advantages to high-density living. The following ones were cited in The Costs of Sprawl, where the highest density was 30 unit/acre. Residents of walk-up apartments and high-rises spend 30% less time on household tasks (as compared to those in single family conventional) and have correspondingly more discretionary time. For this reason it would be a particularly attractive lifestyle for wives and mothers working outside the home and for single parent families.

The amount of time spent travelling in an automobile is 52% of low density sprawl and less than that of any other planned development, due to the increased proximity of facilities and services. Traffic accidents of all kinds are sharply reduced (53% of low density sprawl) in planned vs. unplanned development. The Real Estate Research Corporation attributes this fact to the decrease in auto use, shorter road length and wide road widths in high-density areas. This particular study found that the general level of design, natural features, leisure facilities and services, socio-economic status and investment are higher in all kinds of planned environments as compared to conventional detached homes sprawled out in suburbia. However, they also pointed out rather significantly, that the higher the densities the more this "edge" is decreased. Planned environments (this usually refers to clustered houses with much of the open space left as open as possible) can offer a more varied design, safer vehicular circulation patterns (if there is a separation of pedestrian and vehicular ways) and greater emphasis on

the preservation of open space.

The main disadvantages cited here[78] as well as by Oscar Newman, of high density living is the increase in crime. The former study[79] notes up to a 20% increase in crime and they both record statistics showing a greater incidence of violent personal crimes in high-rise structures.[80] However,

> . . . there is such considerable variation in the factors which determine crime rates in a given area--including population, socio-economic characteristics, level of police enforcement, density, housing type and community layout or design--that it is virtually impossible to determine relative occurrences of crime in alternative development patterns.[81]

Security Guidelines

The following design strategies for overcoming security and safety problems in high-density housing have been suggested for New York.[82] They are based in part on Newman's research and seem like reasonable standards to apply to South Loop's housing projects.

1. The elevator doors and circulation stair should be visible from the public spaces.
2. The private communal outdoor space should be visible from the lobby.
3. The entire parking garage floor should be visible from a threshold point at the entrance to the lot, not obstructed.
4. The elevator or general circulation stair up from the garage must exit into a semi-private or public space at a point visible from the lobby, and not more than 75' from the lobby.

5. The mailroom should be visible to the lobby or a public outdoor space.

There are some other characteristics of urban life that are less clearcut. For example, residents at high densities are willing to bear the financial costs of higher quality services, many of which are provided by community associations, and which make having a car unnecessary[83]. Also planned mixed land use developments can arrange to have a wide variety of stores and goods at various prices and a heterogeneous population, especially if there are government subsidy programs, like the kind set up by the Mass. Housing Finance Agency, described earlier.

Air pollution from private automobiles and residential natural gas consumption at high densities is only 45% of the total produced by the same number of people living in a conventional single family district. However, the concentrations of air pollution double under high density conditions.[84]

Similarly, although water pollution may be 80% less with the denser development the concentration of pollution will be somewhat greater. Therefore, it seems the planners of South Loop should try to install whatever pollution control devices are available and within the budget. One of the biggest pollution offenders is the automobile, but there will probably not be too many cars here because the costs of garaging and insuring a car is so high in Chicago, and there won't be that much parking space for residents or visitors.

Other problems associated with high density for which specific guidelines can be more easily recommended are: noise, children's play,

privacy, adequate levels of daylight and sunlight in apartment interiors and in outdoor open space.

It is now sixteen years since the Ministry of Housing in England established guidelines for high density, where they only set daylighting minimums and maximum densities, asserting that the effect of the other problems were too indefinite or too dependent upon individual sites to permit precise measurement.[85] More recently, the New York Urban Design Council proposed zoning reform legislation, which would force the developers to precisely measure the amount of daylight and sun entering the apartments and open space.

Daylight Guidelines

To measure the level of sufficient daylight the angle of the sun should be calculated at the worst time in winter when the sun angle is the lowest and the hours of sunlight are fewest. All apartments should get sun at least a few hours a day. All kitchens should have daylight. There should be either a window in the kitchen or the edge of the kitchen should be no further than 8'6" from a window in an adjacent room, provided the opening between the kitchen and the windowed room is at least 28 square feet.[86] A substantial portion of outdoor space should always be in sun during the worst times in winter.[87] Shade during summer can always be provided by deciduous trees. It is not advisable to depend on building shadows for outdoor summer shade because these shadows would be terrible during the long cold Chicago winters.

Since Chicago has no zoning legislation of this kind, and

there is no Ministry of Housing here, it will be up to the architects and planning review committee to see that adequate sun enters the South Loop homes. Suffice it to say that the density levels are too high when no design can be developed that admits sufficient daylight.

Privacy

The Costs of Sprawl mentions that a loss of privacy may be increased at higher densities but that a good design can mitigate these problems. There are several studies on privacy which all seem to concur with the fact that

> . . . . the majority of tenants prefer to live their lives without any close involvement with others living round about. At the same time few people want to be cut off from the outside world that they can see nothing of life passing by around them. Obviously to take into account all the implications and to a certain extent the conflicting demands is no simple task.[88]

Margaret Willis, a sociologist in England, compared the privacy needs of middle-income and working class families and came to these conclusions. "Overlooking--as an intrusion on, is affected by who looks in, how he looks in--'a real stare or just in passing,' what the person indoors is doing and whether or not he is the sort of person who minds people seeing him."[89] Naturally, the less overlooking is made possible by the design the better. However, in high density situations, inevitably

> . . . more buildings overlook each other, and people in their gardens or even in their rooms feel surrounded by others--watching, judging or gossiping about them. It would seem that the closer people are living to each other the more important it is for them to have a similar background.[90]

She points out that rooms overlooked by higher flats are more

exposed than those on the same level. Also private gardens between neighbors need more privacy than open fencing separating them can provide, because of troubles caused by dogs, weeds, balls, etc. which come through or over the fence, in addition to the feeling that one can never get away from the people next door. John Zeisel also noted in his feedback study of Charlesview that residents erected solid fences around their yards,[91] and that the higher degree of privacy there was the higher the satisfaction.

Willis noted that large windows are popular for light and air but the larger the window the more important the view outside was. "A desirable view and privacy is achieved by those houses with their own enclosed garden, but in ground floor flats with communal open space, or houses on a busy large road, large windows can be a drawback."[92]

In low rise schemes porches should not be shared because of the annoying problem of hearing a neighbor's private business and arguments over its maintenance.[93] Also pedestrian routes should be at least fifteen feet from bedroom and living room windows unless adequate screening is provided.[94]

The Housing Quality Program[95] is even more performance oriented in its guidelines for privacy from street to apartment for ground floor apartments. These are defined as those apartments which have a floor elevation less than 7'0" above the nearest sidwalk. They request that all of the rooms in these apartments (excluding kitchens) that face semi-private or public space be "visually private."

A visually private room is one in which eye contact is not possible between a person standing in a room, four feet behind a window, and a person standing 15'0" in front of the window in semi-private or public space eye level of the outsider is considered to be 5"0" (see illustration from the Housing Quality Program.)

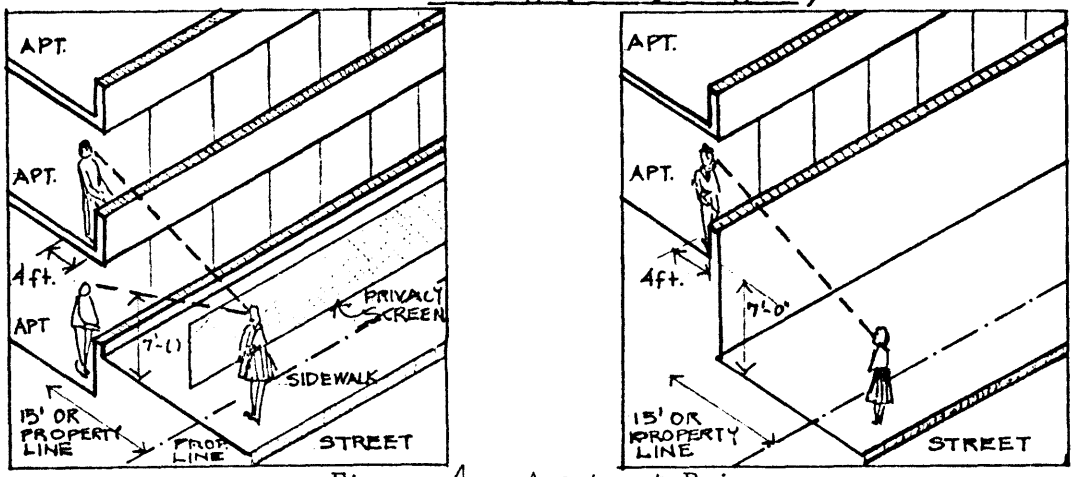


Figure 4 - Apartment Privacy

They also have devised a clever method for measuring apartment to apartment privacy. This also includes visual privacy from apartment to commercial and community facilities and parking structures on the same zoning lot. "The degree to which an apartment room is private depends on the depth one can see into an apartment (penetration)." Clerestory windows with sill heights 5'6" above the floor are considered private. This method for determining penetration established a minimum distance required between windows (see Figure). Also they recommend that in no case should a window or wall be located within 30' directly in front of a window.

Perhaps there should be legislation passed to guard the privacy rights of these future residents in light of the high density plans for this site. These high densities will surely benefit the city

and the developers because the more people who move in the more taxes will be paid and the more profit the developers can make. Therefore, in exchange for these benefits perhaps the developers should be compelled to demonstrate how they have considered this problem. Later, post-occupancy, the users can be questioned to see whether these guidelines imposed for their benefit were having the predicted effect.

Noise

Another disadvantage of higher densities is that noise impacts are likely to be more severe. The noise from children playing at ground level in shared common open spaces may result in concentrations of children remote from their home--i.e., playgrounds, tot lots, which may cause some localized impacts on nearby homes.

> Children tend to play all over the estate rather than confine their activities to play spaces provided, but some areas . . . appear to attract more children than others (for example round garage cul de sacs, changes in level, staircase landings and semi-enclosed and covered areas . . .). It is important therefore at the design stage, to try and forsee whereabouts children will gather and play and to take this into account. In those parts of the scheme where noise is likely to be particularly great (including noise from major roads and railway lines) double glazing or other methods of sound reduction should be considered.[96]

Another point is that where children's play is incorporated into the landscaping, the noise of play can be reduced by maintaining a higher proportion of soft areas, since hard paving will be highly reflective and will magnify noise.[97]

However, all noise--from children, lawnmowers and outdoor equipment are offset by increased heights. Air conditioning noise

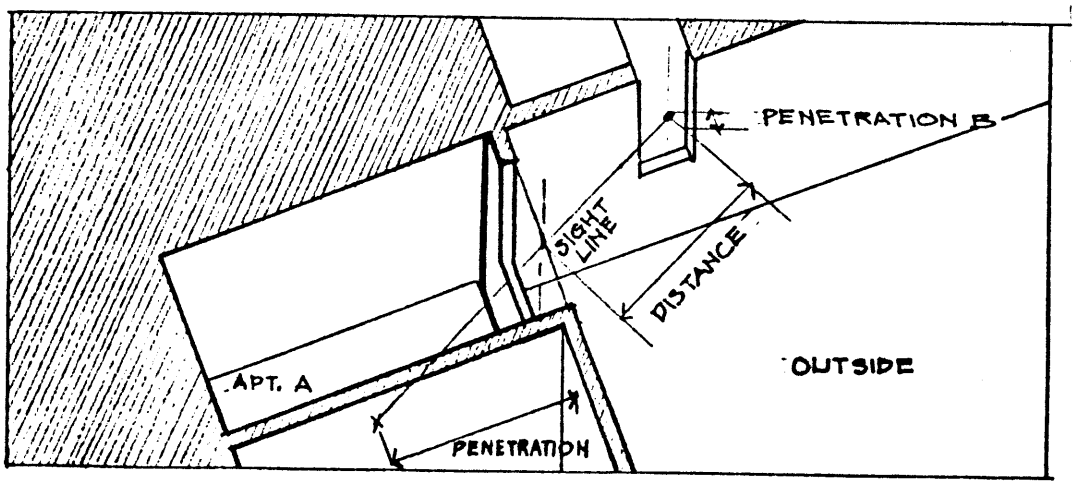
Figure 5 --Measuring Apartment to Apartment Privacy

Privacy is established as follows:

1. Draw a sight line through the center lines of the two windows in question.
2. Project that sight line into both rooms until they intersect a wall.
3. That distance--measured along the wall from that point to the exterior wall--is the extent of PENETRATION. PENETRATION is determined for both windows.
4. The average for the penetration distance between any two windows is found. The chart below established the minimum distances required between these windows. Windows which comply are considered private.

Penetration into Rooms	Distance between Windows
0'	0'
2.5'	10'
5'	30'
10'	45'
15'	60'
20'	70'
20'+	80'

For example, given a penetration average of 15', the minimum distance between the windows should have been 60'. If it wasn't another location for the window should be considered.



can be a considerable nuisance when units are located around small courtyards where reverberation could occur. Garbage collection noise will be localized at specific central collection points, but with less exposure on upper floors. The noise from adjacent dwellings in townhouse units can be transmitted through common walls and in apartments, through ceilings and floors, however its impact can be reduced with quality construction.

High Density and the User Group

Another variable in the high-density environment which can affect its success is the composition of the user group. Dr. David Cooperman, a sociologist, made some very interesting observations in this area. He noted that the social disorders apparently caused by density are in fact caused by low income, poor education and social isolation. Secondly, traditional density standards like the kind quoted here earlier were largely based on assumptions about street use at peak and normal times of day.[98] It was feared that circulation routes, elevators and open spaces would be flooded with users at peak times, such as the morning and evening rush hours, and would get too overcrowded. Competition for the same spaces and amenities will create points of friction. The fact is, though, that many population groups have irregular schedules such as graduate students, college faculty, general hospital personnel, and policemen, so that these overcrowding statistics depend on the occupation of the tenants.

A third point Cooperman makes is that whether or not high density

works can depend at least as much on the cultural background of the users as on the quality of the design and general environment. Some beautifully designed cities and some not so aesthetic old city centers benefit from high densities. However, the rural immigrants to the dense Chicago, Detroit and the Twin Cities slums found them very ugly. On the other hand, Italian American immigrants in Boston's West End admired their extremely dense neighborhood.[99]

High Density and Learning Experiences

One last characteristic associated with urban high density living, which is especially important in Dearborn Park is the learning experiences the city can offer a child. In city neighborhoods children can go places by themselves at an earlier age because they are not dependent on automobiles. They can run errands on foot to nearby stores. They can visit the fire and police stations, construction sites, banks, local factories, etc. to see how these people work, which are all only walk or short busrides away.[100] In fact, the educational study funded by Educational Facilities Laboratories[101] outlines a whole plan for an outreach program for some of these institutions and to open their doors to the local youngsters with special programs. Children in the South Loop will be able to take public transportation with friends to all kinds of museums, movies and to the large city parks which are all well equipped with large playing fields and special recreational facilities.

The chances that there will be a music teacher, ballet class etc. within walking distance of a person's home are much better in

high density, mixed land use situations. For parents who want their children to be acquainted with people of other cultures, to have a more worldly independent spirit, city life can be wonderful. The problem is getting children familiar with nature through things like fishing, camping and growing things. For most middle class families this problem can be solved to a great extent by summer camps and vacations in the country. Also, although the townhouse backyards which are planned will probably be small (around 350 square feet on an average) that is enough space to grow a small vegetable garden. Also the nearby community center could have a communal greenhouse. "An urban region is an immense storehouse of information. Its stimuli, diverse ways of life, events and facilities are prime occasions for learning."[103] Carr and Lynch advocate new institutions to increase environmental openness and responsiveness, in addition to the traditional schools which train "skills" and look to the filling of career slots.

Many of the points presented here are obviously neither pro nor con. Depending on a family's priorities they may want to overlook the heavier concentrations of pollution and noise because they enjoy their proximity to cultural and learning experiences, to their place of work, and to convenience stores. They may prefer being able to get along without a car, or having a more diversified group of neighbors, if not next door, then a few blocks away.[104] The importance once again of this planned urban development is that it represents an <u>alternative lifestyle</u> for people with different

values and interests, than those who prefer the more homogeneous suburban communities. However, in order to make it a real choice, special consideration must be made to protect their daylighting, privacy and noise levels. Also the additional amenities they require must be included.

High-Rise High Density

It is also necessary to explore the special problems and advantages of living off the ground.[105] Children of all ages are expected to comprise 30% of the population of the South Loop. Representatives of Chicago 21 hope that few if any children will be living in the high rises. However, they are also proposing very high densities and consequently only a limited number of townhouses. They may not find enough of the "preferred" tenants for the 2665 other apartments, off the ground, for the first development --so-called stable couples without children or with grown children. Many of these people may prefer condominiums in the suburbs or on Lake Shore Drive. Since the user group profile drawn up earlier suggested the popularity of the South Loop for single parent families, and families with children, who cannot afford the suburbs, it is necessary to investigate also what the implications are of raising youngsters in elevator buildings.

Health and User Satisfaction in High Flats

There are very few studies on the effect of high rise living on health, and none of them are as yet very conclusive.[106] Health problems are generally divided into two categories, physical and

mental. There is no adequate documentation that there is any physically harmful effect attributable to high rise living. There has been found, though, that the incidence of neurotic symptoms was three times as prevalent among mothers aged 20-29, and that wives over forty were more prone to neurotic disorder when living in flats as opposed to the same group in houses.

J. and R. Darke suggest that since the younger group has small children and there is less social contact in flats in comparison to houses, this is the problem. The over thirty group would be more likely to have children in school and thus more time to develop social contacts and a chance to take a part-time job. The oldest group over forty having previously lived in houses may have been intolerant of change. Incidentally, they also found that when testing the occurrence of psycho-neurotic incidence against story height there were twice as many among top floors as bottom floors.

Lack of social life is only one possible source of anxiety, though, among mothers with young children. Many evaluation studies have noted the inconsiderate lack of insight into the problems and needs of child-rearing in the design of most high-rise buildings.[107] The elevator access building is often an over-restricted environment--physical and social, and so "requires unusually imaginative provisions for play if the children themselves are not to be thwarted."[108] Most authorities agree that unless special provisions are made that high-rise living is quite unsatisfactory for small children. The amenities will be described in detail, under comfort and convenience.

Another connection has been found between emotional health of the residents in high-rise and their particular life style, or income group. While some families are perfectly content living off the ground, others seem to adjust very poorly.

In the latter category there are several types. First, the experimentally minded families looking to alter the environment.[109] They get frustrated because in most middle income buildings there are no working surfaces, little storage space for bulky objects, and seldom is it possible to enlarge or change one's apartment. Most young, large families, especially if they have grown too fast, can barely afford the upkeep. Dissatisfaction is also expressed by people who enjoy doing their own repairs, working in a garden and in doing housekeeping chores.[110]

> Another group of households which life in a high flat does not really suit are those below the social and educational level of the block's households in general. These tenants find it difficult to cope with the methodical habits and the self-contained existence of life in a multi-story block and are likely to be a more disruptive element, than would be the case in low rise housing.[111]

This group cannot afford the frequent trips to the theatre and movies and expensive leisure pastimes that the city offers.

On the other hand, those who fit easily into life in a high flat are people who are self-sufficient socially and rather above average.

> The wider their experience with men and affairs the more they can cope with a large number of other people. The more advanced their level of education, the more likely they are to recognize the risks associated with this new type of home, and the higher their income, the more they can afford to spend on compensations--a car, a seaside holiday membership of sport clubs, etc.[112]

A study done in the Netherlands also came to the conclusion that high flats are chiefly suitable for "a limited category of more cultured families in the middle and higher income groups."[113] A study of high rise families in England found that two-thirds of the residents interviewed wished for a house and garden as the most desirable housing type. Despite this, another study found that as long as tenants were able to choose the floor on which they lived that they were happy no matter what floor they were living on.[114] Therefore in the post-development phase it is important for management to allow tenants to make this choice.

Convenience and Comfort in High-Rise

The advantages of living in high-rises most mentioned were fresh air, healthier atmosphere, quiet and privacy. Views of human activity (e.g., streets, shopping centers) or long views of natural scenery were preferred over views of other flats or industrial areas.[115] There is less dirt and noise the higher up you go. No stairs or steps (of course, with the exception of skip-stop elevator solutions) is a big plus for families with small children in strollers, for the elderly and disabled people and for the average pedestrian urban shopper with a shopping cart. One is within a few yards of rubbish chutes, housekeeping is easier, as was mentioned up to 30% less than for a detached private house.

The biggest inconvenience of high-rise living which everyone complains about is that of the elevator breaking down, and the fact that it limits your freedom. Other disadvantages cited are that

there are no handy neutral areas like that of a doorstep, garden or yard which help people know about their neighbors without necessarily exchanging a word.[116]

There are many logical remedies, though, for the negative aspects of living off the ground. For example, as was noted mothers with small children are unhappy because there is no way of letting their children play outdoors, short of escorting them down the elevator, staying on to supervise their play and then escorting them back upstairs. Amenities can be incorporated into the building such as day care, which has a varying price tag, or enterprising mothers can form "play groups" with each other, taking turns watching each other's children.[117] Wide open single-loaded corridors or "streets in the sky" (with a solid railing for perhaps the first two and a half feet and an attractive mesh one above) to keep small children from falling over) have been used with some success.[118]

Another problem for high rise apartment dwellers, especially severe for those with young children, is that of treking up and down elevators to the roof, basement or ground floor to communal laundry facilities. The roof is often dangerous because of its isolation from ground floor guards and traffic, which make it easy prey for muggers. In Twin Parks, designed by Richard Meier in the Bronx, New York City, that facility was especially bad. Besides being tiny and cramped with no area provided to fold clothes, it was unsafe, being on the roof, so no one lingered there to appreciate the great view. The roof was never developed as a play area, as had been anticipated, for lack of funds, and mothers had nowhere to leave their children while

they did the laundry. To add insult to injury there was no laundry area in the apartments. Even if they washed some things out by hand, high rise dwellers have no place to dry their clothes. Therefore, the design of alcoves or walk-in closets with a plumbing connection should be mandatory in all apartments two bedrooms and over. Laundry areas should not be on the roof unless there is very tight security and a play area is arranged for children. A quick check of middle income suburban condominum and apartment offerings in brochures and newspapers reveals that they all have laundry areas if not in each apartment, then on every floor.

A laundry area within the apartments also makes a marvelous storage space for bikes and suitcases for families either with older or no children who find the communal laundry area sufficient for their needs.

Families with young children also need room within the apartment to play. Corridors are often not wasted space. They can become great places to run up and down, play hide and seek or ride a small tricycle and can add additional privacy between the private and public spaces.[119] All of the studies that so conclusively stated that families with small children should not live in high rise buildings excluded the fact that amenities such as these can make it work out quite well. Other points--families with little kids should be encouraged to live on the first five or so floors above the ground. This is about as many steps as small children can negotiate by themselves in case of emergency, if they cannot yet reach the elevator

buttons or if they or their mother fear that they may get "stuck in the lifts." Other advantages of lower floors are that they can yell up to their mothers to throw down a paper bag with a forgotten school lunch or sweater on a chilly day. Eat-in kitchens, large enough for children to play in while mother cooks or irons can help substitute for the lack of a den. Of course, they should have some direct or indirect daylighting too (see p.117). If apartment windows face upon an interior courtyard or playground mothers can glance out of the windows and call them home to supper. Such an internal communal courtyard or park can achieve better security if it has a gate, is closed after dusk to outsiders and made accessible only from apartment units.[120]

As far as the elevator problem is concerned, the only solution (until breakdown-proof elevators are invented) is to have enough of them so that there is always one in operation. One economical way of accomplishing this is by having odd and even elevators. Each one stops on half of the floors. If one breaks down the inconvenienced tenants only have to walk down one flight of stairs. Skip stop elevators schemes, however, although economical, force from one half to two-thirds of all tenants to <u>always</u> walk either up or down a whole flight of stairs in order to reach their apartment doors,[121] and are therefore never satisfactory. For example, there is the common predicaments of the elderly tenant who felt fine when she moved in and loved the exercize, but then broke her hip. Or there is the case of the mother struggling daily with groceries and

two small children who, after parking her car in the garage or a block away must walk to the elevator and wait for it; and then after finally reaching her apartment door must struggle down or up a flight of stairs with packages and children.[122] A positive aspect of elevator travel is that it seems to be a popular place for meeting the people in the building especially for singles.[123]

Another characteristic of high rise buildings is one that can be interpreted either as an attribute--the increase in privacy, or as a drawback--the anonymity--the isolation. In the following discussion on lobby design and access patterns ways will be discussed in which apartment buildings can be built which influence the levels of privacy and hence the social life and security of the residents.

In evaluating how the building layout affects social relations there are three main variables--physical distance, functional distance, and time. Physical proximity is not equivalent to functional proximity. The argument for vertical streets for example is spurious because "vertical neighbors are unlikely to know of their physical relationships even if they do meet on a lift or on the stairs unless there is a good deal of social interaction among families or unless the families have been in the building a long time, and so have knowledge of their co-residents."[124]

Since residents, except those living on the same floor, often don't know each other, security problems are intensified. One solution for increasing security would be the design of buildings that increased social contact, not through an organized tenant meetings approach but through casual encounter.[125] It can generally

be stated that tenants who wanted privacy and climate control over social interaction prefer common hall access (double-loaded corridor) or enclosed single loaded schemes (with narrow hallways inadequate for play). The balcony access, single-loaded street-in the air, on the other hand, increases sociability. For mothers with small children access balconies were considered much the better layout especially if the balconies were screened in and made safe for children's play. "Privacy was considered to be 100% in the cluster block but was still relatively high in balcony access flats. . . . Feelings of isolation were greater in cluster and point blocks and relatively low in balcony access buildings."[126]

Public housing officials prefer double loaded internal corridors, because of their economy, privacy for dwelling units, all weather cleaning causing less traffic disturbance, than on open corridors. In addition local codes in northern cities may require heat in gallery floor slabs.[127] The economy of the double loaded corridor over the single-loaded type is due to two factors. First of all the latter has a narrower structure, and is therefore less wind resistive and needs more sheer walls. Secondly, they carry twice as much corridor and must be twice as tall to accommodate the same number of apartments.[128]

Other factors also bear on the sociability levels, such as population homogeneity with respect to age, occupation, stage in the family life cycle, background and experience, values, attitudes and aspirations as well as personality factors--all of which favor more cohesive neighbor relations.[129]

Another way security can be increased is through the presence of guards. The single entrance characteristic of high rise buildings is logical for security as well as economic reasons. It can easily be protected by guards. When there are no guards, or in addition to them, the lobby can be provided with surveillance from outside of the building. To do this internal activities such as getting the mail, waiting for the elevator, using the pram room, or as the case may be purse snatching or drug dealing, must be observable from the streets and exterior grounds of the project.[130] In addition all sources advocate entrances off busy streets.

The problem with this single access solution is that it creates high-rise security guarded fortresses which are "a withdrawal from human life." Two to ten acre housing complexes are walled off from surrounding neighborhoods, removing thousands of feet of street from all forms of human contact."[131] Perhaps the middle income residents will like having their buildings stand aloof and apart from the surrounding neighborhood. It might be argued that from an economic point of view, such a solution would, while exploiting the property rights of residents, detract from the safety and value of surrounding properties. This leads us directly into a discussion on the value of mixed land use in high density situations which will be covered next.

The Effect of Mixed Land Use on High Densities

Residential densities have a direct economic relationship with other land uses, especially with respect to the retail location

process. Projections of future business for a shopping center or retail stores takes into account the density policies within a trade area. The higher the density the higher the probable dynamic interaction intensity between individuals. Conversely, the lower the densities, the less interaction, which spells dire consequences for transportation and other vital services.

> Higher residential density, all by itself, tends to produce a new kind of world that is more closely wired together. In big apartment or townhouse complexes it is feasible for builders to throw in activities and conveniences that otherwise might be scattered elsewhere, such as shops, doctors' offices and even day centers. By clustering the residential units, developers also are able to save large pieces of land for tennis courts, swimming pools, and golf courses.[132]

Of course, although the Fortune magazine article was not discussing the case of the very high densities of South Loop, some of its observations still apply. Also mixed use increases the educational opportunities for youngsters mentioned earlier.

In England, the kinds of families that preferred the urban lifestyle, living in redevelopment areas, felt that having good indoor entertainment, good job opportunities for women, and good supporting facilities were important. Most important, though, was having good shopping and good public transport.[133]

The conclusion is quite clear, that for those minority of families, who want to live in town, there must be mixed land use, especially commercial facilities. For the developer this is good news because probably the most effective way to make residential development profitable, is to combine it with commercial.

> This spreads development risks and, if commercial potential is strong such development can subsidize related residential development by balancing out land values and achieving higher densities and layout standards. However, the opportunities for creating such developments within larger, mainly residential development areas, are generally limited, e.g., to district shopping centers. . . . although the concept of mixed urban village is gaining favor.[134]

Not that it should be naively assumed that the local shopping areas will provide most of the goods and services of the South Loop New Town residents. There is no question of the fact that this economic role has to a great extent been usurped by the large regional shopping centers, especially with widespread car ownership. In addition, one of the primary advantages of this New Town's location for the business leaders who are backing it and its potential residents is supposed to be its easy access to public transportation to the central business district's department stores. The local stores can expect to provide mostly food, hardware, cleaning, laundry and shoe repair type services.

Still the trend in the United States for building commercial spaces integrated with residential development is very strong, especially in the successful new towns.

Robert Gladstone, who heads a well known real estate firm, thinks that the "radical shifts in middle class living patterns including smaller families, working wives, more emphasis on leisure and wider acceptance of cliff dwelling are going to bring a lot of people downtown and into those suburban nodes to live."[135]

> New Town builders have tried to meet the rather basic human need for what they call an 'agora.' The word comes from the ancient Greek for market square, but has come to mean any

> gathering point where impromptu chatting and people-watching can take place. The most elemental agora these days is the community swimming pool, which is an almost universal feature of big new residential developments. A year-round agora is the neighborhood or village shopping center, which is being built right in the midst of prime housing. This marks a sharp break with the recent past. Throughout most of this century status in suburbia has been roughly proportional to one's distance away from stores. Yet when these areas are designed subtly and tastefully by planners and architects, Americans will accept the radical mixing of shops, apartments and homes that is necessary to create a focal point.[136]

To reinforce a sense of place and to provide nearby customers for the stores, the developers of Trailwood Village, in northeast Houston, Texas, built low-rise apartments next to and over them. There is a waiting list for those apartments. Similar apartments over stores in Columbia, Maryland and Reston, Virginia, have always been filled. Retailers are finding out that "a lot of Americans want shopping to be part of an experience involving crowds, food and entertainment, and not just buying and loading the car."[137]

This non-economic function of small business was brought to wide attention by urban planning critic Jane Jacobs. She claimed that these stores had a relationship with the community, that they were islands of safety, message centers, catering to cultural specialties and were sources of employment, as well as credit, concern, human contact and convenience. Wolf and Lebeaux set out to evaluate the importance of this involvement in a poor black ghetto. Here it was found that only credit, concern, contact and convenience (especially for children, whose geographical range is limited) were really important aspects. Their researchers were quite unsure, though, as to whether or not these stores, many of whose residents

claimed exploited them were the "glue" that held the neighborhood together.[138]

In proving the non-economic function of small business is it really important to prove that all of the advantages she cites are relevant to every population group? Large stores, after all (including supermarkets) can also offer cultural specialties, where there is a demand, be a source of employment, and provide some security by lighting up the street at night. Community centers and other institutions like churches can also supply the "glue." The fact is that what also interested Jane Jacobs was the contribution which commercial activity made to street life. Whether or not this "street life" does all the things Ms. Jacobs claims it does, and which some researchers have tried to disprove is not the crucial factor. What is important is that the dwellers find this street life an attractive aspect of the urban life style, and the shrewd developers have picked up on this fact by establishing the "agoras" described earlier.

Of course, there can also be very real disadvantages to mixed land use in residential neighborhoods, but it depends on the type and location of these businesses and institutions. Some studies have been done seeking to establish which uses are preferred by residents and which facilities actually have a noxious effect on a neighborhood. A high concentration of taverns is a distressing sign. Where community discretion is high no more than a neighborhood bar will be tolerated. Clusters of bars and liquor stores are increasingly associated with drug traffic, prostitution and violent

crime in the city. They accelerate the downgrading of neighboring land use and promote outward migration by those who can afford to leave.[139]

Other examples of noxious uses cited were gas stations, used furniture stores, pawn shops and public housing. Residents in the low income blue collar, white area of Philadelphia interviewed in this study wanted more police stations, libraries, day care centers and schools, but no facilities that might attract Black residents. The control group questioned consisted of college students. The ones who preferred suburban living wanted housing within a narrow price category with convenience stores collected into a shopping center. Others, who preferred center city locations for housing, wanted homes intermixed with high amenity facilities, with other needed facilities (e.g, hospital, repair shops), confined to neighboring communities.[140]

The main objections to mixed use are: the influx of strangers and undesirables, increased traffic and congestion, increased noise and possibly air pollution and litter. These problems can be alleviated somewhat by having controls over the non-residential uses by confining it to the edges of the neighborhood and by being able to somehow limit the number of "noxious" facilities in a given district.

In Chicago, a successful pattern has emerged for mixed use, in many stable moderate-middle income neighborhoods such as East and West Rogers Park. Here we see neighborhoods divided into square sections. At the edges of these squares (every 1/2 or 1 mile) are

major axis streets lined on both sides with stores of all kinds, institutional facilities--(clinics, schools, churches, community centers) and apartments, side by side with the stores or above them. These busy streets which occur at regular intervals have housing which is cheaper and often sought after, by people who want to pay less rent, or don't mind or prefer the hustle and bustle and noise. Many elderly folks and handicapped people take these apartments. Some have sold apartments or homes on the interior of the grid where it is quieter and more expensive. For many of these people, who are on fixed incomes and prefer proximity to public transportation (buses run on all these streets), convenience stores and the view of constant activity they see from their windows, these commercial streets are ideal.

In the first 53 acre parcel there are streets that can be developed this way. Clark Street on the west and State Street on the east, further north and south, are already commercial streets with buses running along them. These streets would lend themselves naturally to this kind of development. The blocks in between them could be designed to turn "inward" away from the noise and bustle. Double loaded corridor buildings along these streets could have noisier apartments facing the street and quieter ones facing a courtyard, giving residents a choice of location and price perhaps.

Conclusion

What are the implications of these findings on density and mixed use for the design of the South Loop New Town. Although the

developers may settle on a number of dwelling units, and on an amount of square footage of commercial rentable space that favor their interest, this number may not correspond at all to the needs of the future users.

Actually, there is no magic number to set for the density requirements of the users, but there are very real limits past which the density cannot go. If these limits are surpassed then the disadvantages of living in this new town will so outweigh the advantages that the developers will not really be offering an alternative lifestyle. If adequate privacy, noise and sunlight levels cannot be insured, in the ways outlined, then the density is too high. If adequate circulation routes, elevators, corridors, etc. cannot be designed to mesh well and efficiently with the physical structures, because of the numbers of apartments they must service, then the density is too high. If adequate amenities such as proximity to good schools and commercial services and to public transportation cannot be provided, then thought should be given to lowering the population, because one of the major reasons people tolerate high densities is precisely for these amenities. If adequate and attractive open space of the kind to be described in the next chapter cannot be developed because there just isn't enough land to go around, then this town was designed with too many units.

Early in the master planning phase and throughout the design development it will be up to the architects to try and design an environment that performs well on all these levels, in order to achieve a high enough density to make developers interested in

investing money here. The problem is who will be protecting the future user's interests during the pre-development stage of the programming process. As a matter of fact the topic of mixed use introduces a new user group, who have not even been discussed, the proprietors of the stores, institutions and offices.

The actual locations and number of these non-residential users will be determined early on by the architects and developers in the master plan. The developers will be most concerned with whether or not they can rent all the space they are building, at a reasonable profit, and enough of it to help spread the development risks on the housing. The Chicago 21 Corporation has already made it very clear, that they want a minimum of commercial development to force the residents to use the services in the Loop. They are wary of setting up a competing retail district with the one they represent--which is in trouble.

It is safe to guess that the storekeepers and professional people who will occupy the non-residential spaces will want the maximum number of (law-abiding) customers they can get, as well as good security. One solution which was discussed earlier, that the Chicago 21 and Skidmore Owings and Merrill have considered, is to put all the shops into a tightly clustered arrangements in a small shopping center, oriented only toward the New Town, centrally located in the first 53 acres (see Figure 1). This approach may favor good security but it will discourage any drop in trade from the adjacent area which could be beneficial to the shopkeepers. A linear arrangement of shops on the other hand, on the ground level

(perhaps of high rise structures) along State Street, which is already a commercial street, would benefit the residents by producing the kind of street life, described earlier, as being so important to city neighborhoods. Such an arrangement would also be bound to attract more customers. The shops that residents would have to pass in order to get to local transportation, schools or jobs will get the heaviest drop in trade.[141] This strip of non-residential use could also house a religious group, day care center, and professional offices for doctors,[142] lawyers, etc. The higher the activity levels that can be maintained, usually the better the security.

In this way, the new development would not be turning its back on the adjacent area to the east (which the planners, tactfully refer to as marginal) and the housing would be less fortress-like. The entrances to the buildings could still be located off the quieter side streets and communal space the way they have already planned.

Can future users have any input in the programming of the mixed use areas? One way, as we suggested earlier, is for the developers and architects to question a surrogate user group (of the type described in the programming chapter) as to their preferences for location and choice of mix. Inevitably, the decision of where to put these stores will be in the developers' hands, but unless they plan to also manage their projects they may not be concerned with what kinds of stores or services are attracted here. Noxious uses can have a very detrimental effect on neighborhoods, so besides polling future occupants before they move in as to their needs and

preferences, the designer ought to take a look at other successful mixed use neighborhoods and see what kinds of stores are desirable.

Many of the other variables affecting density such as safeguards for privacy, though, are up to the discretion and integrity of these architects and developers. People who believe that no one should interfere with private enterprise might say that if the whole New Town here fails because it does not satisfy user needs then the developers got what they deserved. This is not an adequate answer. Everyone's taxes in Chicago will be spent to develop roads, sewers, parks, schools and recreation facilities for these very same private developers. Therefore, especially for those factors such as privacy, daylight and noise levels, which are quantifiable, the Planning Department and the City Council must set guidelines for the developer and reserve their approval of funds for these improvements, and the necessary zoning change, until the criteria has been met. This is especially crucial since serious mistakes in this area are often irrevocable post occupancy. The developers can take their case to court and protest that the city's withholding of its approval is arbitrary, so there is all the more reason for clear rationalized guidelines.

Post-Occupancy--it will be important to test these guidelines, to make sure they were accurate, before they can be imposed upon any new development projects. To do this interviewers can raise questions about user satisfaction with regard to these issues. Researchers can stand next to windows in a sample of apartments to test sightlines and take noise and daylighting readings in the

apartments and open semi-private spaces. In this way, the planning department can accumulate even more reliable information about what does and does not work.

Site Planning and Open Space in Residential Design

The open space in the city includes the voids created between the buildings as a result of site planning decisions--recreational areas, open parking lots and streets. This area is the joint domain of the architect and the landscape architect. The way buildings look on the outside, how open they are visually, whether or not there are building entrances or stores along the street, has drastic implications for the open space.

Residential open space in the city is in a separate category from all other kinds of urban open space. City residents no matter what their economic class must share a great deal of their open space with strangers.

Unlike office space or commercial spaces--children play and hang out there, adults spend leisure time and the elderly spend a great many hours a week in these open spaces. They are an extension of people's home, their living space, and are used constantly by competing and cooperating groups of people. These spaces must be differentiated in order to best serve these various needs. Also as Randolf Hester (1975) points out, user's expectations of how these spaces can serve them must be increased. With greater participation of the residents the recreational spaces can be much more responsive to their needs, and the interaction necessary for this participation

will help fight the anomie in the city and enable residents to meet their neighbors.

In order to illustrate how crucial the site planning design is to the success of Dearborn Park, the most current proposal for the development of the first 53 acres will be briefly reviewed.

What is planned here are 3,000 units of low, medium and high rise buildings (only 335 townhouse units). They will be developed by several different construction management-architect teams but their basic circulation and open space patterns will be determined by the master plan. According to this latest master plan there will be no entrances to the housing off the two bordering main north-south streets, State to the east, and Clark on the west. The concept is to have rights of way into the complex off the two side streets that run east-west, for privacy and security reasons. The housing will be built along the edges with communal open space in the center (see illustration on the next page, and Figs. 1-3, pp. 10-12.)

This has several implications. Many of the local stores will be concentrated either outside the complex--to the east of State street, in the so-called marginal area, or in a sort of mini-shopping center on the corner, with convenience stores in the 5,000 square feet the developers have set aside for them.[143] This means that in order for the residents to shop outside the complex, on foot, they must take a shopping cart and trek up to the main entrance, no matter where their dwelling unit is because there are no shortcuts planned out onto the main street for so-called security reasons.

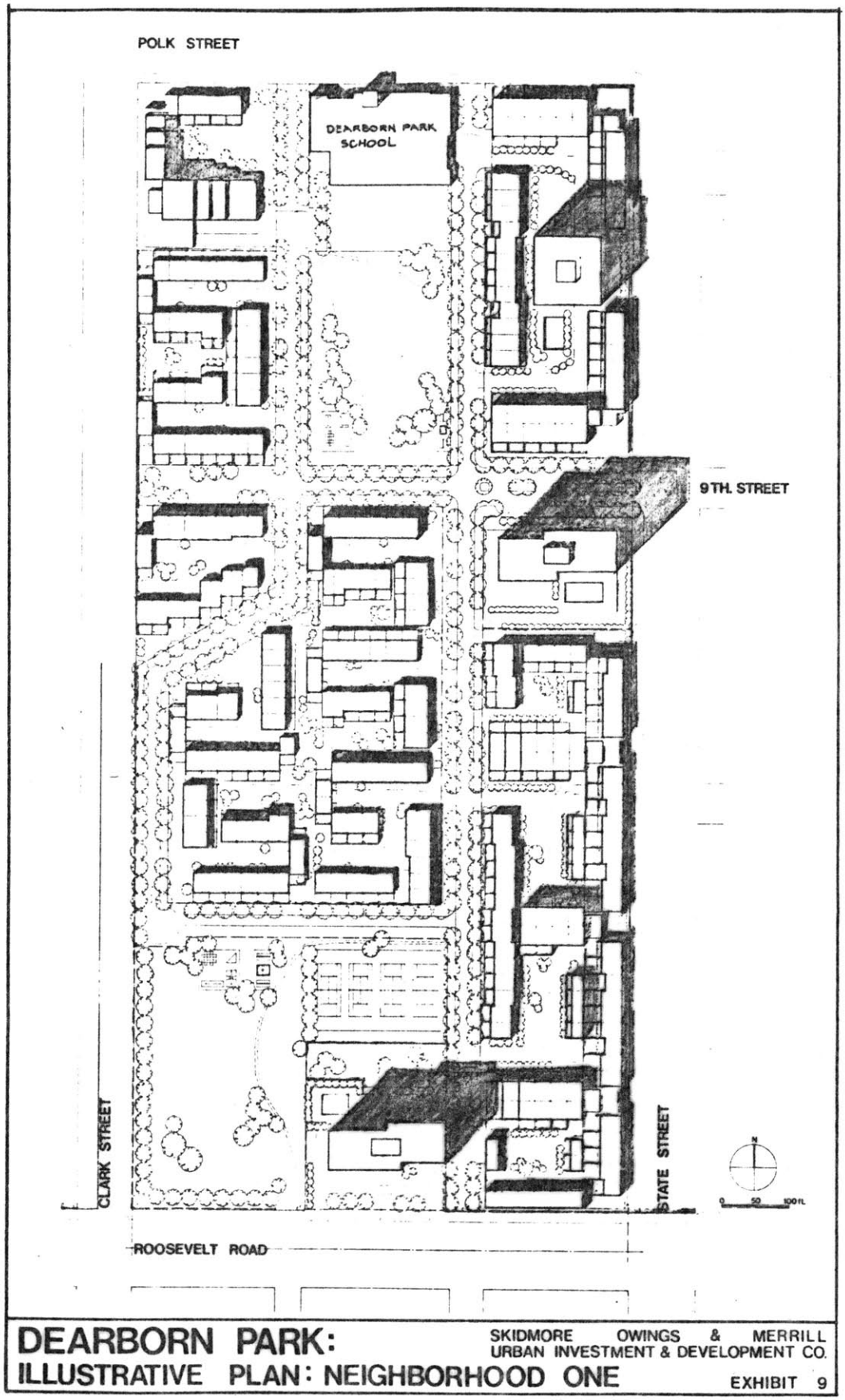

POLK STREET
DEARBORN PARK SCHOOL
9TH. STREET
CLARK STREET
STATE STREET
ROOSEVELT ROAD
N
0 50 100 FT.
DEARBORN PARK:
ILLUSTRATIVE PLAN: NEIGHBORHOOD ONE
SKIDMORE OWINGS & MERRILL
URBAN INVESTMENT & DEVELOPMENT CO.
EXHIBIT 9

Fig. 6

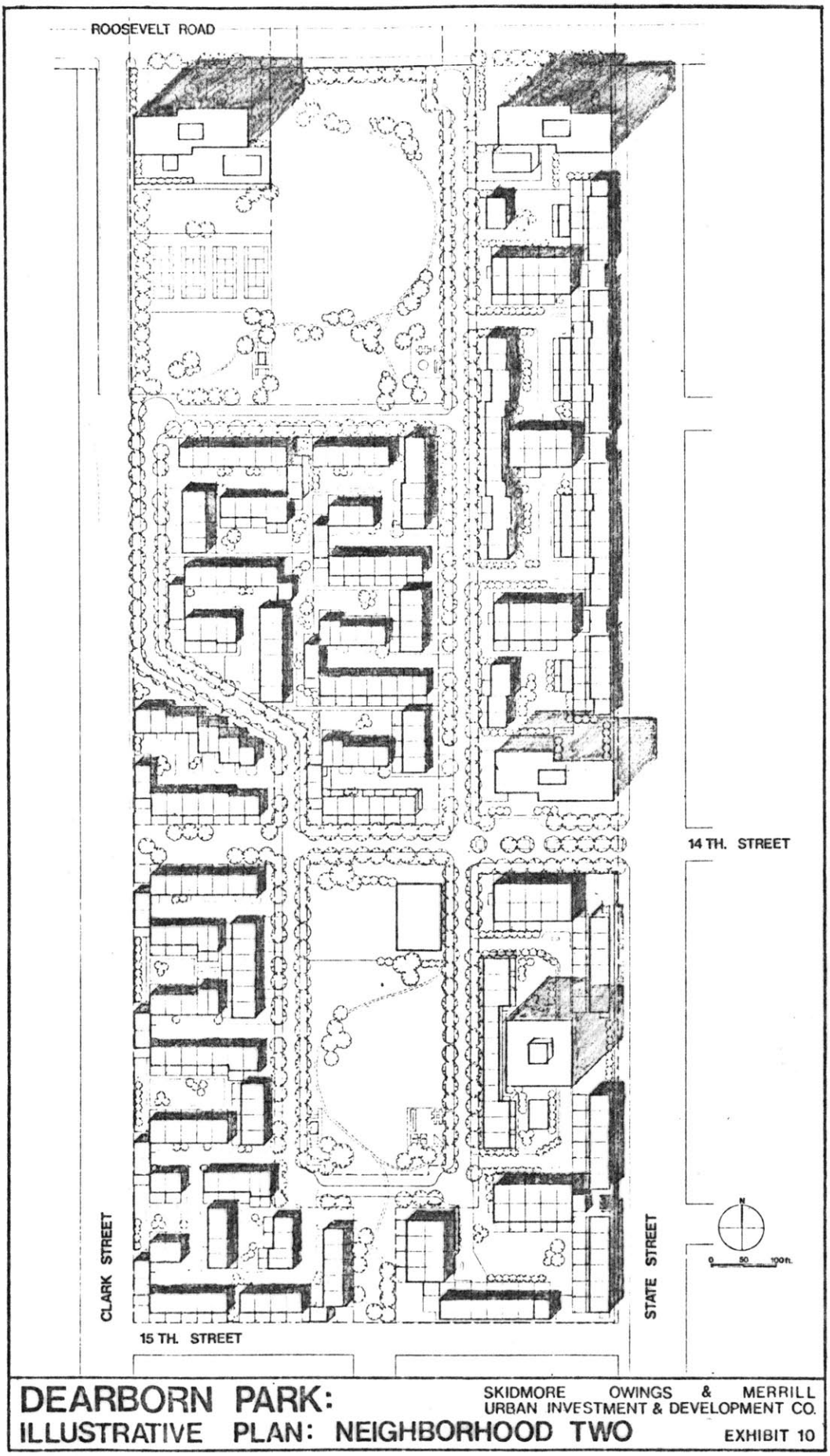

ROOSEVELT ROAD
14 TH. STREET
CLARK STREET
STATE STREET
15 TH. STREET
N
0 50 100 ft.
DEARBORN PARK:
ILLUSTRATIVE PLAN: NEIGHBORHOOD TWO
SKIDMORE OWINGS & MERRILL
URBAN INVESTMENT & DEVELOPMENT CO.
EXHIBIT 10

Fig. 7

In addition, this scheme has the potential for making an enclosed fortress out of the new housing. Without shopping or entrances (or perhaps there will even be a garage wall facing out)--the main streets outside it will be dead of activity and hence very dangerous.

Another point is that unless the massing of the buildings is very carefully studied the open communal space in the center is in danger of always being in shadow. As the reader can see some basic site planning decisions, irrevocable ones, concerning massing, location of circulation paths, entrances, and mixed use--will have a very definitive effect on the design of the open space around the new town.

There are even management decisions which are made in the pre-development stage which can have very serious implications for the use and success of these spaces. For example, the Chicago 21 has also suggested that perhaps the city could develop the communal open space, belonging supposedly to the residents of the high-rises (who have no private open space except maybe balconies). Supposedly, this economy for the private sector would be passed on to the residents in the form of initial lower prices. However, making these parts public would also mean that <u>anybody</u> including non-desirables and transients could legally enter and use this space, a policy which is in direct contradiction with that of the single entrance design--which is security and privacy!

Also it makes the programming process more difficult. If the residents wanted to alter the design of "their" open space,

instead of negotiating directly with their management, they would have to struggle with the whole city bureaucracy, forming citizens groups. Also residents all over Chicago could have a say in how the money would be spent.

In the next part of this chapter this issue of residential open space will be explored as seen through the eyes of various researchers, followed by a general summary of their recommendations. Then based on the opinions of these authorities on how open space should be designed, we will demonstrate how the architects can be asked to prove how they tried to resolve these problems in the predevelopment stage. In the post-development stage as part of the feedback process, methods will be selected to study the use of these areas and see how successful they are. Then strategies will be outlined for encouraging the actual resident user group of South Loop to get involved in the "fine-tuning" of any modifiable elements in the design.

Randolf Hester points out that the initial programming decisions dictating who the residents of Dearborn Park will be are important, because of the variety of ways different social, regional,[144] ethnic, class and age groups use and interact in outdoor space. Of these factors class and life-cycle stage appear to be the most important.[145]

For example, "In the low-income sites studied most outdoor leisure activities occurred in the front of the home; on porches, steps, sidewalks and streets."[146]

In the Baltimore study for a low income area they proposed providing suitable spaces for sitting, congregating and playing street games--spaces that served as stops for fruit and vegetable vendors and ice cream trucks, that are such a feature of the inner city. Such spaces they suggest are to be "suitably paved, well-lighted, suitably planted, and equipped with mailboxes, telephone booths and trash containers to enhance the use of spaces used by low income residents."[147]

"Conversely, in the upper middle income sites studied, socializing and playing most often took place in the controlled setting of the private yard."[148]

Hester, who headed a team of students and researchers studying contrasting uses of outdoor spaces noted that in contrast to the poor neighborhoods studied, that Cameron Park, a middle income professional neighborhood required a different solution.

> Since social interaction occurs toward the back of the homes it has been proposed that the old alley be redesigned to be the primary circulation route serving secret play spaces, private sitting areas and vegetable and flower gardens. Most new suburban developments take into account the interaction desires of the middle class prospective buyers by providing maximum separation and privacy.[149]

One must conclude that whether or not the developers have a homogeneous socio-economic population, will directly affect whether or not they can design satisfactory open spaces for their user group.

Interestingly, there were far fewer examples in the literature of how residents in the middle income groups, especially in high density high-rise situations use open space. The reasons for this are not at all mysterious. Few people in that segment

of the population live this way, especially, as was pointed out, in Chicago. The majority own townhouses or private homes. From the evidence available, however, it seems safe to say that they are less likely to "hang out" on the streets, or make car washing and repairing a central activity than low income residents.[150]

Life Cycle

Another important factor in determining the use of open space is the stage in the life-cycle of the users. Mothers with small children would prefer a tot lot in an inner courtyard which could be surveilled from their kitchen windows. Teenagers, on the other hand, are more mobile and less neighborhood bound. They would be the more likely users of the public parks in Dearborn Park, along the river and Lake Michigan. Although, teenagers in a low-income housing project--Jacob Riis, in New York, demonstrated their interaction needs for hanging out close to home, in the communal plaza belonging to the houses. Here they took over a private sitting garden designed for the elderly because they could hang out close to home, in an intimate place, without adult supervision.[151]

Another aspect of the streetscape and open spaces is whether it contributes to the resident's sense of territoriality--whether his turf is clearly differentiated from someone else's. Does the built form environment succeed in defining semi-public, family-private and group-private spaces?[152]

In the urban world where people live so close to one another, the dimming of these lines can create unnecessary tensions. Urban quality has to do with how well acoustic and visual privacy

are maintained. In order to do this clear boundary definitions are necessary, distinguishing territory belonging to the legal occupants of a multi-family building like the community gardens, playgrounds, laundries, reception area and service spaces from that owned by the general public like streets, rights of way, etc.

This competition for ownership rights is the issue defined as "territoriality." Oscar Newman concludes that the more the ownership of a space is defined by an individual or group the better it will be maintained and protected (physically) because these people will take the responsibility for it.[153]

Territorial definitions can be established from the very massing of the buildings. For example an 'L' shape building automatically semi-incloses spaces while the slab or point block configuration may need more definition. These definitions can be created by fences, buffer zones of bushes and trees, grass berms and other landscaping devices, a change in paving patterns, graphic signs like "Private-Keep Off," etc.

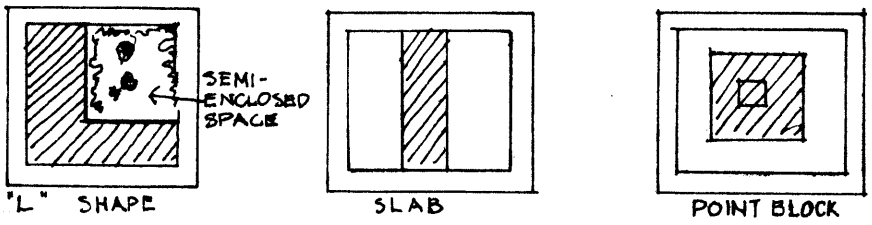


Fig. 8

An illustration of how residents responded to the problem of establishing territorial definitions, post-development is seen in the following example. In a moderate income housing project in the Bronx, New York called Twin Parks (designed by Richard Meier), this author observed some rather ugly fences along the property line

of the project.

It seems that the predominantly black moderate-middle income residents liked the sitting spaces along the streets but they wanted to keep the boundaries between their semi-private communal sitting area and the public quite clear. Also residents objected to the open site planning that the architects had strived for. This particular project was sited on a superblock. The architects with the permission of the city had eliminated a through street. The designers had left the first floor under the buildings open for parking and for the community people (outsiders--usually low income) who might want to take a shortcut by walking through the project instead of around it. These intrusions into their space by outsiders were resented by the occupants. So the solution the Housing and Urban Development Corporation (the building's sponsor) came up with was to close off the shortcuts and sitting spaces with rude make-shift fences. Sensible, less offensive design strategies might have suggested themselves to the architects had they been aware of this problem in the design stage.

Territoriality and High-Rise

Newman decries the use of most forms of high rise buildings which he contends break down the residents' sense of territoriality, and hence create more crime. His evidence leads him to conclude that the physical form of the residential environment plays a key role in shaping the perceptions of children and making them cognizant of the existence of zones of influence and the rights of others.[154]

Elizabeth Coit (1965) also notes instances where vandalism is reduced and the maintenance level is increased when clear definitions are drawn between public, semi-public, private and semi-private spaces in hallways and other public areas.[155]

The problem with Mr. Newman's generalizations about crime in high rise is that they are based primarily on the statistics provided by the New York City Housing Authority, who are the landlords of low-income tenants only, the vast majority of whom have severe social and family problems to deal with as well as discrimination to cope with. Critics say that his recipes then, for the suitable physical design of housing are not universally applicable and are relevant only in designing for the group he studied.

For example, Reynar Banham's study of a high-rise block in England containing 2800 people in 995 units, had white working class tenants. He notes that this complex did not comply at all with Newman's recommendations. Despite this it is a relatively safe project, mostly free of vandalism.[156] For instance, Park Hill is very vague about the distinctions between public and private realms. This is deliberate; the decks were seen as extensions of the street system. Banham claims that only in the remotest reaches of the uppermost floors will you be recognized as an interloper, and then only if you insist on poking a camera in folks' faces.

> Parkhill (also) . . . manages to mislay those virtues which Newman claims to find in single-loaded access balconies, visible from the street from across a courtyard (if you can call it that). It is so wide that you need binoculars to spot malfeasances and it might take ten minutes to reach the scene of the surmised crime. To compound this design misdemeanor the windows that look out onto this deck contribute nothing to

> surveillance. The spaces they light are minute lobbies alongside the entrance stairs, normally inhabited by umbrellas and pot plants, rather than people and are glazed with glass so reeded that you wouldn't recognize your own twin through them.[157]

Banham suggests that part of the failure of the Pruitt-Igoe project in St. Louis stemmed from the fact that few if any of the tenants who were drafted there had ever seen a building more than a story and a half before. Conversely, high-rise housing was standard fare in Sheffield when this project was built and the Park Hill tenants were the most briefed tenants to move into anything.

Banham admits that this contributed greatly to its success because the tenants felt cared for and part of a unique community. He is optimistic that these social tactics <u>together</u> with a design that included such amenities as covered circulation, can yield good results. He warns against Newman's architectural determinism and states that defensible spaces don't work on their own. However, it is clear that these definitions were important to the middle and moderate income tenants in Twin Parks. The point is then, given a stable population of families that are accustomed to the high-rise lifestyle, they may adjust to a project <u>despite</u> its lack of territorial definitions and maintain a low crime rate. However, Banham certainly does not prove that the residents given a choice would not have preferred a design more sensitive to their territorial needs.

Criticisms of Newman's broad applications of his territoriality concept and prescriptions for physical space design as being relevant to only certain population groups has been made by

Bill Hillier as well. He points out that many studies of primitive societies prove that territoriality is not a universal concept which can be easily applied and has so many exceptions that it is irrelevant to the study of physical space.[158] His argument is very unsatisfactory, though, because he does not prove that territoriality is not a factor in western culture. The point is that the patterns of ownership differentiation may differ from group to group, but at least in western society it has always proved to be of importance. It is concluded then, that territoriality differentiations should be made in the South Loop projects, because their effects have always proven positive, but no deterministic claims should be attributed to it alone.[159]

One important aspect of the territoriality concept is its effect on our thinking about open space design. It has been observed that large undifferentiated open spaces become vast wastelands, belonging to no one in particular, unused. Often they are windy and unpleasant to be in. Open spaces need to be meaningful symbolically.

> An attempt was made to create strong symbolic areas in the new town of Columbia, Maryland. This is especially successful in the village centers, each of which has its own readily symbolized shopping and recreational facilities.[160]

Other Issues

Other spaces take on symbolic meaning because of activities that occur there such as basketball or because of the people that use it from year to year. Why don't many of the planned public gathering places work? Jane Jacobs points out that these formal

public spaces are difficult to immediately personalize. Also once a public space becomes the hangout for one income group, although it may be designed for all social groups it may become symbolic of that group. For example, in Boylan Heights Park, once it became identified with the lower income groups, the other income groups stopped using it.[161]

Some other issues which are on Hester's user needs checklist for neighborhood spaces are safety, aesthetic appeal, psychological and physical comfort, policy on use and, cost.

Safety is of course a very crucial factor. Besides being well guarded, the recreational spaces should be free from traffic, especially for younger children. Aesthetic appeal, psychological and physical comfort are all interrelated. They are all associated with those aspects of the townscape elaborated on previously (in the chapter on the physical definition of neighborhood). They are maintenance, ambience, quality of construction, with the addition of protection from the micro-climate. The use of shelters, such as a childport for children to run under if it suddenly starts to rain, and the presence of shady and sunny places in seating areas are important. "Furthermore people will choose spaces that meet their physiological needs through the careful placement of drinking fountains, toilets, food sales, benches with backs and ramps."[162]

One factor in the use of open space that is particularly relevant to the South Loop, residential neighborhood is that of convenience. Developers might have a tendency to say that the open space near the homes need not be too carefully thought out. They

may not see a need to provide places for all kinds of activities for a whole range of age groups, because the city will be providing large well-equipped (supposedly) parks close by. This however is a very erroneous assumption. All the evidence clearly demonstrates that families, especially middle income families want their own turf nearby. Certainly, the public parks will not be as accessible after dusk as are protected play areas close to home, visible from apartment windows. These latter areas will be much preferred by mothers whose school age children may be playing there. Also there are many activities such as sitting quietly outdoors after work, getting a breath of fresh air and talking to the neighbors, in a semi-public areas, that the average person does not want to trek over to a park to do. Besides, the city's parks are public and can be used and identified with low-income groups.

Convenience depends on the activity that one plans to engage in:

> A five minute walk to the corner drugstore may be considered convenient; a ten minute drive to a tennis court may be considered convenient; a three hour train trip to snow ski may be considered convenient. . . . The major consideration is the distance from one's home.[163]

Distances in Dearborn Park must be measured by the mode of transportation which here will be elevator and foot. There will be parking for only 50-75% of the high rise units, and only one space per family; and in any case, as was previously pointed out, city people like to walk places. One authority recommends that neighborhood play spaces be located within 200 ft. (at the most 300 ft.) of where people live for them to be able to use it in an informal way.[164]

There are numerous manuals on how to design playground and recreational spaces. Here, though, attention will be focused on those few key ingredients that Dearborn Park's open spaces should not be without.

Hard surfaces and paths--These are needed by youngsters tricycle and bicycle riding, roller skating--away from pedestrian paths to avoid accidents. Hard surfaced play areas are suitable for small children to pull a toy, jump rope, ball bounding games, skelley, potsie, hopskotch, marbles and other city games that require chalk.

Natural hillls--These add variety to the landscape and are a natural for children's climbing type play. These can be man-made, using the soil dug up from the building excavation or left from existing outcrops that form an economical bonus.

Designated play areas--Clare Cooper noted that small children will always play within a radius of the most frequently used entrance to the home and often prefer to play on or near the street, wherever the "action" is. This was corroborated in several other studies.[165] In one of them, although the site plan provided a large open space for multiple activities, this area accounted for less than 3% of all people observed.[166] The predominant activity in the field was ball play where young children and adolescents were the main participants. Actually most of the activity occurred in the streets and sidewalks and especially in the cul de sacs near the apartment entrances. These results tell us something very important for the design of the South Loop. It is in six words:

The Importance of Differentiated Open Space

The open communal space made available to Dearborn Park residents exclusively, must avoid the sin of grass, grass, grass--especially when the costs of maintenance are so high, the inevitable signs DO NOT WALK ON THE GRASS. This is very precious open space designed to serve residents who will be crowded into high rises and attached townhouses. The only meager private open space will be yards for the houses and balconies on the apartments. Therefore this must be an area with paved surfaces, trees and water fountains. School age children should be able to run out, close to parental supervision after classes or supper and play side by side with adults walking and talking.

Diversity in neighborhood play spaces means that these areas must be designed to support a range of opportunities for psychomotor fantasy, creative and social activity. To achieve this in relation to the varied needs of children of all ages, and adults both fixed and loose resources are required located in different zones. If sufficient choice is provided conflict over "scarce resources" will be avoided. Fixed resources include basketball courts, seating areas with benches, while loose resources are manipulable like sand and water in or adjacent to play areas for the under fives.[167] In a study of the Lenox Camden Playground an "adequate" level of diversity insofar as it supported a wide range of activity without serious conflict could be designed on 1/4 acre per 40 children.

Tot Lots--There have been numerous studies on this subject and they all concur that unless these areas are in the line of maternal supervision and are adequately equipped for small children's play--so that teenagers cannot take them over--they will be neglected and misused and the money spent on them will be wasted. In Richard Dattner's playground in Central Park in New York, a public park, he wisely designed benches all around the sandlot so that mothers could supervise. Robin Moore notes that the presence of semi-secluded edges and corners will facilitate the fantasy play of young girls. Tot lots are essential for children under five if they are to have adequate exercise and outdoor play.[168]

Teenage recreation--It has been observed universally that teenage boys want basketball courts near "where the girls are" so that they can show off.

Sitting areas--They should be located in such a way that some are always in sun while others are in shade so that they can be used year around. No place in a densely populated open space is going to be serene and allow its visitors an opportunity to "commune with nature." Go to any park in a housing complex and notice how people come out of their private apartments to be with and to watch other people. This should be considered when locating benches. Some should be sited for people watching while others should be set up to encourage conversational groups to form. The presence of informal sitting spaces will facilitate the social needs of the over 12's especially girls.[169]

What is an adequate number of seats? The interesting

quantitative method for establishing this was suggested by the Urban Design Group, and is included here.[170]

Program of seating should be based on the following schedule:

Level of Housing Density	R3	R4	R5	R6	R7	R8	R9	R10
Occupants per seat	6	7	8	10	12	16	25	50

Number of occupants is computed in this way:

Apartment	Occupancy
Studio	1 Adult
1 Br. Apt.	2 Adults
2 Br. Apt.	2 Adults + 1 child
3 Br. Apt.	2 Adults + 2 children
4 Br. Apt.	2 Adults + 3 children

"All seats qualifying under this section must be within 15'-0 of a deciduous tree, be visible from 1/4 of the apartments, receive sun for 2 continuous hours between 10 A.M. and 2 P.M. on Dec. 21, be at least 15'-0" from a parked car and be 18" x 18" wide."[171]

Landscaping--Different kinds of plants, paving surfaces, sitting furniture and spaces, water and specially designated paths for intensive activity create elegant and successful outdoor spaces.

Water--Elizabeth Coit notes "spray pools are welcome in warm weather. Integral or applied color, e.g., swimming pool blue in the concrete dish adds cheerfulness. The pool can be used as a skating rink in winter."[172]

At Twin Parks in the Bronx, N.Y., the children complained to this author that there wasn't even a water fountain in the open

space. Originally there had been a fountain planned by the architects. When they were forced to abandon the idea for economic reasons, they left an existing fire hydrant in the middle of the open space, where a public street had been closed off. However, the Fire Department, no longer seeing any justification for its existence there, went to the time and expense of having it removed. This was much resented by the children interviewed who were bitter about the lack of water in the recreation area. Children use water to make sand castles, squirt guns, splash in and drink, especially when home is a whole elevator ride away. Corporations have long found it an economical and beautiful solution to create cooling ponds for their air conditioning systems in the form of duck ponds, spray pools, and fountains. The pools are also often used for site drainage reservoirs, when there are large paved over areas like outdoor parking lots. This idea has not been exploited nearly enough in residential design.

Trees--The older the trees, the more established the neighborhood looks. The importance of an adequate number of trees of a decent size cannot be overemphasized. They provide shade, a place to climb for kids, and beauty to any outdoor space.[173] A minimum sized tree is defined as being at least 4" caliper, planted in no less than 4'-0" of earth and 200 cubic feet of soil, having adequate drainage. The higher the density the more trees there should be.[174]

The Urban Design group also recommends that there should be at least one sidewalk tree no smaller than 3½"-4" caliper, for every 25 linear feet of sidewalk fronting the site. It should be planted

in a bed no less than 50 sq. ft. in no less than 4 feet of earth with a grating area of 25 sq. ft. Also that the specifications for planting shall be in accordance with the standards of the American Society of Nurserymen. This point is especially relevant, because there are no older existing trees on the new town site, and it is recommended that reasonably mature trees are selected for the landscapeing here.

One last point, large playing fields for football and baseball for 3% of the population have little space in the limited communal space available to residents of Dearborn Park. If funds are limited they would be best spent on differentiation of the open spaces in the ways just outlined.

How can you measure whether enough recreational space has been provided? A detailed quantitative method can be found in the Urban Design Group's Housing Quality Program.

Problems of Residential Open Space and the Programming Process

At what stage must the issues just described be considered and by whom? At the very outset, when decisions are made about density-dwelling units/acre, the issue of open space arises. The developers will naturally want to make the maximum profit by having as little open space/dwelling unit as possible (especially if they are to be the eventual managers and will have to maintain the space). They may also opt for the most economical building solution, the high rise slab,[175] which offers the least definition of outdoor space. In the low rise development the most economical solution may also

not be the best from the user's point of view. In any case massing and other site planning decisions such as whether or not to have open communal parking lots or covered garages, row houses along streets or cul de sacs, are made early on. They are based on economic and design considerations and the security recommendations made by their consultant. In order to insure that they have the needs of the eventual users in mind it will be necessary for them to fill out an "accountability" list demonstrating how they took the users' requirements into account.[176]

This checklist would include such questions as:

1. How did you (or could the residents at some future time) differentiate the open space to suit the needs of different age groups?
2. How are public spaces distinguished from semi-public ones through building massings, fencing, landscaping, etc.?
3. Is the tot lot placed in a location easy to surveille?
4. Are there fixed and loose elements in the play spaces such as seating areas, water and sand?
5. If there is open communal parking how was it designed to be safe, aesthetically pleasant and convenient to residents?
6. Is there adequate open space for the projected number of people?
7. What changes could residents make in their communal open spaces if they wanted to, such as the addition of a child-port?
8. What acceptable solutions do you offer the homeowner in terms of fences, for closing off his open space from his neighbors if he wants to?

Etc.

This list could then be used to test the architects' assumptions post occupancy. Naturally the question arises to whom are they accountable. As was suggested previously, the Planning Department and City Council can withold the money for parks and rights of way, etc. unless certain established user needs are met.

The feedback would be accomplished through questionnaires, interviews and observation seeking people's opinions--complaints and praise for the way the spaces worked. Some sample questions pertaining to their satisfaction with their open space are:

1. How often do you use the communal outdoor areas? Which parts do you use?
2. Do you have children, if so how many and what ages?
   - Do you let them play by themselves?
   - Where do you let them play?
   - Do you like the location of the playground and why?
3. Could you make a map describing your usual route from your apartment (townhouse) door to the places you usually go to--shops, transportation, work?
4. What suggestions do you have for improving the open space?

The research team would also observe users in the open space at different times of day--morning, after school, after dinner, on different kinds of days--weekends, weekdays, holidays--in warm and cold weather. They would document what age group uses which part of the park or street, what groups never seem to use the spaces, which paths are most frequently used, what new paths pedestrians

have created (across the grass) etc.

The next step involves getting the users to participate in possibly modifying these areas to more closely meet their needs. Assuming that there are some loosely enough designed areas that can be altered--perhaps a model could be constructed offering alternatives and photographed. The residents could then respond more intelligently and bounce their ideas off real proposals. Town meetings could also be held on different issues, like changing your apartment, or changing the outdoor spaces. Tenants could be shown slides of the models and drawings of alternatives and asked to vote on whether they would be willing to put up extra money--perhaps $5 per month in additional maintenance for a year to finance more expensive changes. A model could also be displayed on which residents could maneuver blocks representing paths, trees, play equipment, which could be photographed to generate more alternatives.[177] The real objective is to create a genuine feeling of responsibility and commitment in the tenants and owners of South Loop by teaching them that they can have a say in the future of their community.

Footnotes

CHAPTER IV

[1]Department of Development and Planning, South Loop New Town Guidelines for Development (Chicago, n.p. Aug. 1975), p. 11.

[2]The market study commissioned by Chicago 21 determined that the foremost interest of middle-class families was in having good school and security. From an interview with Mr. Bufalini, Aug. 26, 1976.

[3]See chapter on physical definitions of neighborhood on pp. in this thesis.

[4]The Chicago 21 would not let the author see the market study they did, so this research is completely independent of theirs.

[5]R. J. Johnston, Urban Residential Patterns (New York: Praeger Publishers 1971), p. 52.

[6]John Perlham, "When Companies Move their Problems to the Suburbs," Management Review, (April 1972).

[7]Robert Babbin and John Pembroke, Building Dynamic Communities, Center for Government Studies, Northern Ill. University, De Kalb, Ill., May 1971.

[8]The biggest problem will be to attract middle class white families if there is a majority of black families. A case in point is the "Drake-South Commons," townhouses three flats and high rises complex, done by architects Gordon & Levin in 1974. Here they tried to mix moderate (subsidized) and middle-income black and white families. Unfortunately, many white families moved out. Now the complex is overwhelmingly composed of minority group families, instead of really being integrated.

[9]Johnston, op. cit.

[10]Charles Kaiser, "'Re-Segregation' The Urban Challenge," New York Times (Sunday, April 25, 1976, p. 1.

In this same article, Roger Starr, New York City's Housing and Development Administrator, sees two values in direct conflict--the value of ethnicity and ethnic ties and the value of integration. He doesn't even see how it can work. In very high status neighborhoods, whites send their children to private schools and consequently

care less about the exact numbers of minority students. However, in mid and upper class neighborhoods where white families cannot afford this option, 30% minority is the most they will tolerage. Jean Milgram of National Neighbors, a Philadelphia based federation of 84 multi-racial neighborhood organizations around the country, gives them advice on how to keep themselves integrated. This means how to deal with real estate practices which include racial steering.

[11]Mark Hinshaw and Kathryn Alliott, "Environmental Preferences of Future Housing Consumers," J.A.I.P. (March, 1972 38 (2), pp. 102-7.

[12]Johnson, op. cit., p. 239.

[13]Robert Earsy and Kent Colton, Boston's New High-Rise Apartments: A Study of Residents and Their Preferences (Boston: B.R.A. Jan. 1974), p. 13.

[14]Ibid., p. 239.

[15]Carl Norcross and John Hysom, Apartment Communities the Next Big Market, (Washington, D.C.: Urban Land Institute, 1968).

[16]In another Norcross study, Townhouses and Condominiums: Likes and Dislikes, (Wash. D.C.: Urban Land Institute 1973), he found that suburban townhouses and condominiums have attracted higher numbers of single, widowed and divorced people, who do not have children living with them than can be found in the general population, p. 90.

[17]Robert Earsy and Kent Colton, op. cit.

[18]Ibid., p. 5.

[19]Ibid., p. 7-10.

[20]Ibid., p. 11.

[21]Ibid., p. 14.

[22]Ibid., p. 17.

[23]Ibid., p. 56.

[24]Ibid., p. 45.

[25]Suzanne Keller, The Urban Neighborhood, p. 118.

[26]Marc Fried and Peggy Gliecher, "Some Sources of Residential Satisfaction in an Urban Slum," Journal of American Institute of Planners, (V. 27, No. 24, Nov. 1961), pp. 305-15.

[27]Oscar Newman, Defensible Space, op. cit.

[28]Fried and Gliecher, op. cit., pp. 305-15.

[29]Charles Kaiser, op. cit.

[30]John Friedman, "The Future of the Urban Habitat" in McAllister, p. 65.

[31]David Obrien, Neighborhood Organization & Interest Group Processes(New Jersey, Princeton Press,) 1975.

[32]For strongly supportive views see Robert Dorfman's "The functions of the City," in Anthony N. Pascal ed. Thinking About Cities: New Perspectives on Urban Problems. (Belmont, California: Dickenson Publishing Co.), 1970.

[33]Albert Hunter, Symbolic Communities: The Resistence and Change of Chicago's Local Communities (Chicago U. Press, 1974), p. 90.

[34]Ibid., p. 90.

[35]See the physical description of neighborhood in this paper.

[36]Terence Lee, "Urban Neighborhood as a Socio-Spatial Schema," in Environmental Psychology, edited by Proshansky, et al., p. 356.

[37]Terence Lee quotes a figure of 5,000-7500 as being adequate for a community. The Upper West Side in New York, which is often erroneously called a neighborhood, actually has 230,000 people (1970 census). The South Loop will have a projected population of 30,000 and the first development package will have 7-10,000 people.

[38]William Ryan, et al. A Social Audit of Mixed Income Housing, (Boston, Mass.: Massachusetts Housing Finance Agency) Jan. 24, 1974.

[39]William Ryan, et al., "All in Together," (Boston, Mass.: M.H.F.A.) Appendix VIII, Table 30.

[40]After looking at the statistics of how few non-white people, especially if they are black, live in so-called white neighborhoods, while white families of various income ranges live in these same areas, it is the author's observation that the majority of middle class white people prefer lower income white neighbors to wealthy blacks.

[41]Critics will charge that this does not solve the housing problem for the poor. This is true, but the declared objective of the guidelines for this new town, is to keep the middle class in the city. One problem at a time.

[42]William Ryan, et al. "All in Together," op. cit., p. 168.

[43]R. J. Johnston, op. cit., p. 37.

[44]This is because rich and poor would all get the same high quality of maintenance and construction. The Mass. study obviously found enough idealistic tenants who were willing to pay this price.

[45]For example at Cedar Riverside, a new town in Minneapolis, in order to qualify for federal funds the developers had to file an environmental impact statement, see Rodney Engelen "Cedar Riverside," Practicing Planner (April 1976), pp. 30-40.

[46]Charles Kaiser notes in his New York Times, op. cit. article that a 30% black population is about the limit in successfully integrated neighborhoods.

[47]William Sims, Neighborhoods: Columbus Neighborhood Definition Study (Ohio: Columbus Dept. of Development, 1973), p. 50.

[48]Kevin Lynch, The Image of the City (Cambridge, Mass.: M.I.T. Press, 1960).

[49]Sims, op. cit., p. 50.

[50]George Zannaris, "An Empirical Analysis of Urban Neighborhood Perception," unpublished thesis, The Ohio State University, 1968.

[51]Peter Wilmott, "Social Research and New Communities," Journal of American Inst. of Planners, Nov. 1967.

[52]Sims, op. cit., p. 12.

[53]Donald Appelyard and Mark Lintell, "The Environmental Quality of the City Streets: The Residents' Viewpoint," A.I.A. Journal, March 1972.

[54]There is no time for a deep exploration of the subject of circulation, so this is only a brief reference to a very complex subject.

[55]Richard P. Dober, Environment Design (New York: Van Nostrand Reinhold Co., 1969), p. 258.

[56]Randolf Hestorin his new book Neighborhood Spaces points out the importance of thoughtful planning of the spaces between buildings. Later in the discussion of site planning and open space design, his and other's observations will be explored in depth.

[57]Sims, op. cit., p. 43.

[58]Out of respect to the needs of the elderly and handicapped, spaces, no matter how charming, that are inaccessible either to them or to emergency vehicles will not be discussed here. For example, plazas located below a flight of stairs or shortcuts involving stairs.

[59]Gorden Cullen, Townscape (London: The Architecture Press, 1961).

[60]Clare Cooper, "The House as Symbol of Self" in Designing for Human Behavior edited by Jon Lang et al. (Stroudsberg, Pa.: Dowden Hutchinson & Ross, 1974).

[61]Robert Gutman and Barbara Westergaard, "Evaluation of User Satisfaction and Design" in Designing for Human Behavior, op. cit, p. 74.

[62]Clare Cooper "House as Symbol of Self," op. cit., p. 134.

[63]Ibid.. p. 146.

[64]See illustrations of South Commons in Chicago in Evans Clinchy, Joint Occupancy (New York: Educational Facilities Lab., 1970).

[65]The non-economic functions of the mixed-use environment will be discussed in more detail in the chapter on density.

[66]Richard Dober, op. cit., p. 273.

[67]Albert Norcross and John Hysom. Apartment Communities: the Next Big Market, a Survey of Who Rents and Why (Washington, D.C.: Urban Land Institute, 1968).

[68]Especially men, slightly lower for women.

[69]Apartment features which attracted residents were ample size, good solid walls and acoustic separation between apartments, a fireplace, quality floors, air conditioning, three-exposures, cheapest rent available, paneling,wallpaper, vaulted ceiling, lighting, good layout, separate dining and living spaces, and lots of electrical outlets and storage lockers.

[70]Bernard Rudofsky, Streets for People (New York: Anchor Press, 1969); Lawrence Halprin, Cities (Cambridge, Mass.: M.I.T. Press, 1972); Richard Dober, Environmental Design (New York: Van Nostrand Reinhold, 1969); Randolf Hester, Neighborhood Spaces (Penn.: Halstead Press, 1975).

[71]Rodney E. Engelen, "Cedar Riverside," Practicing Planner (Aptil 1976).

[72]When Mayor Daly was alive the City Council was known as a rubber stamp body for his wishes. With his recent sudden death, it is not certain how they would vote on this issue, but in all likelihood they will approve it.

[73]Chicago Department of Development and Planning, op. cit., p. 15.

[74]Stephen Sussna, "Residential Densities or a Fool's Paradise," Land Economics (Feb. 1973), Vol. XLIX, No. 1, p. 7-8.

[75]Clarence S. Stein, Toward New Towns for America (Cambridge, Mass.: M.I.T. Press 1966), pp. 16, 90, 190-193.

[76]Gerald D. Lloyd, "Development Regulations, Why We Need It," Regulatory Devices (Chicago, Ill.: American Society of Plann. Off., 1969), pp. 50-52.

[77]Institute for Architecture and Urban Studies, Another Channel for Housing, Low-Rise Alternative (New York: Museum of Modern Art, 1973), p. 31.

[78]Real Estate Research Corporation. The Costs of Sprawl (Wash. D.C.: The Government Printing Office, 1974).

[79]Ibid., pp. 19-22.

[80]Oscar Newman, Defensible Space (New York: Collier Books, 1973). It should be taken into account the fact that his statistics are mostly based on the only population group for which he had reliable figures--poor blacks and Puerto Ricans in New York City Public Housing Projects.

[81]Real Estate Research, p. 152. This study attributes loss in security to the fact that there is less familiarity with neighbors and notes that in high-rise private security may be necessary.

[82]Urban Design Council of New York City, Housing Quality: A Program for Zoning Reform (New York: Urban Design Council, n.d.)

[83]The existence of these stores has pros and cons and will be discussed shortly in the chapter on mixed use.

[84]Real Estate Research Corporation, op. cit., p. 18.

[85]As quoted in Andrew Gilmour, et al., Low Rise High Density Housing Study (Edinburgh: Architecture Research Unit, the Univ. of Edinburgh, 1970), p. 121 from the Density of Residential Areas (M.H.L.G HMSO, 1952) para. 44.

[86]Urban Design Council, op. cit.

[87]Gilmour, op. cit., p, 130.

[88]Margaret Willis, "Designing for Privacy," The Architects Journal (Part (1), May 29, 1963, Part (2), June r, 1963, Part (3), June 12, 1963).

[89]Ibid., p. 1183.

[90]Ibid., p. 1185.

[91]John Zeisel and Mary Griffen, Charlesview Housing: A Diagnostic Evaluation (Cambridge, Mass.: Arch Research Office Graduate School of Design, Howard University, 1975), p. 84.

[92]Willis, op. cit., p. 1140.

[93]Willis, op. cit., p. 1233.

[94]Gilmour, op. cit., p. 130.

[95]Urban Design Council, op. cit.

[96]Gilmour, op. cit., p. 131.

[97]Stephen George, "The Layout of Low Rise Housing in Relation to High Densities," Housing (1968, Vol. 3, No. 4), p. 53.

[98]David Cooperman, "Aspects of Density in the Cedar Riverside Project," unpublished paper, Dec. 17, 1969, p. 3.

[99]Ibid., p. 11.

[100]Richard S. Wurman, ed., Yellow Pages of Learning Resources (Phila.: Group for Environmental Education, Cambridge, M.I.T. Press, 1972).

[101]Evans and Clinchy, et al., op. cit.

[102]op. cit.

[103]Stephen Carr and Kevin Lynch, "Where Learning Happens," Daedelus (Fall, 1975), p. 1281.

[104]For example, Chinatown is just South of Dearborn Park.

[105]Since the literature makes no distinction between mid-rise 8, 10, 12 story hydraulic elevator type buildings and 20-35 story ones, it will be assumed that high rise refers to all structures that are tall enough to make elevator access necessary.

[106]J. and R. Darke, "Health and Environment in High Flats," Center for Environmental Studies," (London: Center for Environmental

Studies, University Working Papers, April 1970). They summarized all the work done until 4/70. They point the non-compatibilities of research methods and conflicting conclusions of various studies.

[107]See "Living off the Ground," The Architects Journal (No. 34, August 20, 1969), p. 451-470; and Clare Cooper, Easter Hill Village (New York: The Free Press, 1975), pp. 220-270.

[108]Pearl Jephcott, Homes in High Flats (London: Cox and Wyman, 1971), p. 130.

[109]Ibid., p. 105.

[110]Ibid., p. 104.

[111]Ibid, p. 130 in addition, please note that in the Massachusetts Housing Finance Agency study, which reported success at mixing the incomes of residents, reported this success for garden apartment dwellers. The one high-rise included in the study was housing for the elderly.

[112]Ibid., p. 128.

[113]Ministry of Housing and Building in the Netherlands, "Should We Build or Live in Houses or Flats," (The Hague: Ministry of Housing and Building, 1965) as quoted in Pearl Jephcott, op. cit.

[114]J. and R. Darke, op. cit., pp. 13-14.

[115]Ibid., p. 11.

[116]Pearl Jephcott, op. cit., p. 128.

[117]In the questionnaire filled out by future occupants, suggested in the chapter on strategy--information on how to form play groups can be handed out with interested parties being contacted to come to meetings where they can meet each other and make arrangements.

[118]Notably in England in a project called Robin Hood Gardens, designed by the Smithsons and in another called Parkhill described by Reynar Banham, see bibliography, and the many housing projects cited by Elizabeth Coit.

[119]I know because I used to do this with my friends having grown up myself in a high-rise apartment in New York. Also there was a public park across the street from my home with a recreation department day-care center, where my mother left me to play happily as soon as I was toilet trained, for about 2 or 3 hours a day. I may not have had a backyard, but I had Chinese, black, and Puerto-Rican, Jewish and Italian friends, and lots of them.

[120]I grew up in a complex that had that type of park where children played safely outside, past 9:00 P.M., especially during the summer.

[121]Skip stop solutions have corridors only on every other floor or every third floor.

[122]At both Peabody Terrace and 100 Mem Drive in Cambridge, Mass., where this scheme was tried, it proved to be very unpopular as noted in research done by Grosser, Dalya, "Slab High Rise Housing," 1975, M.I.T. Arch.Dept. unpublished paper.

[123]Gerda Wekerle and Edward T. Hall, "High Rise Living: "Can the same Design Serve Young and Old," Ekistics, p. 186-191.

[124]J. and R. Darke, op. cit., pp. 13-14.

[125]Reyner Banham overlooks this point in his dismissal of the influence of access corridors on the security level at Parkhill, noting only that they are too high up to effectively surveil the outdoor spaces.

[126]J. and R. Darke, op. cit., p. 15.

[127]Elizabeth Coit, op. cit., p. 15.

[128]John Macsai, High Rise Apartment Buildings: A Design Primer (Chicago: Macsai, 1972).

[129]J. and R. Darke, op. cit., p. 16.

[130]Oscar Newman, op. cit., p. 87.

[131]Ibid., p. 15.

[132]Edmund Faltermayer, "We're Building a New Kind of Togetherness," Fortune (Oct. 1973), p. 131.

[133]Economic Development Committee, New Homes in the Cities: The Role of the Private Developer in Urban Renewal in England and Wales. (London: National Economic Development Office), pp. 30-37.

[134]Idem.

[135]Edmond Faltermayer, op. cit., p. 132.

[136]Ibid., pp. 133-134.

[137]Ibid., p. 240.

[138]Elenor Paperno Wolf and Charles N. Lebeaux, Change and Renewal in an Urban Community: Five Case Studies in Detroit (New York: Praeger Publishing, 1965), pp. 488-90.

[139]Julian Wolpert, Anthony Mumphrey and John Selig, Metropolitan Neighborhoods: Participation and Conflict of Change (Washington, D.C.: Association of American Geographers, National Science Foundation, 1972,)p. 32

[140]Ibid., p. 33.

[141]Terence Lee, op. cit.

[142]The Reese/Mercy Hospital complex is close by and convenient.

[143]This scheme was also described in the section on mixed use and density.

[144]Randolf Hester, op. cit., p. 42.

[145]Department of Planning and the Dept. of Housing and Urban Development, Baltimore Renewal Program Interim Report: a progress report on the first of a two year program of study (Baltimore, Md.: May 1972), p. 147.

[146]Hester, op. cit., p. 71.

[147]Baltimore Study, op. cit., pp. 115-157.

[148]Hester, op. cit., p. 152.

[149]Idem.

[150]John Zeisel, class notes.

[151]Hester, op. cit., p. 71.

[152]Christopher Alexander and Serge Chermayeff, Community and Privacy (New York: Doubleday, 1963), p. 121.

[153]Oscar Newman, Defensible Space (New York: Collier Mac Millan, 1973), pp. 52-3.

[154]Newman, op. cit., p. 13.

[155]Elizabeth Coit, "Report on Family in High Rise Apartment Buildings" (Wash. D.C.: Public Housing Administration and the Home and Finance Agency, 1965).

[156]Reynar Banham "Parkhill Revisited. English Public Housing that Broke the Rules (but Works Anyway)," Arch. Plus (May/June 1974), pp. 109-115.

[157]Ibid., p. 12.

[158]Bill Hillier, "In Defence of Space," R.I.B.A. Journal, Nov. 1973, pp. 539-543.

[159]Such as that territorial definitions will be the effective deterrent to crime.

[160]Hester, op. cit., p. 104.

[161]Idem.

[162]Hester, op. cit., p. 104.

[163]Ibid., p. 98.

[164]Robin Moore, "Patterns of Activity in Time and Space, The Ecology of Neighborhood Playgrounds," p. 128.

[165]Clare Cooper (1975), John Zeisel (1975), Saile (1970, 1972), Birley (1970), Dept. of the Environment, England (1972) Henry Sanoff and John Dickerson, Turnkey III housing project.

[166]As cited in Hester, op. cit., p. 29.

[167]Moore, Robin, op. cit., p. 128.

[168]Ministry of Housing, "Two to Five in High Rise Flats," (London: Homesdale Press, 1961).

[169]Robin Moore, op. cit., p. 128.

[170]Urban Design Group, N.Y., op. cit.

[171]Idem.

[172]Elizabeth Coit, op. cit., pp. 5-6.

[173]See Lawrence Halprin, Cities (Cambridge, Mass.: M.I.T. Press), pp. 163-67.

[174]Urban Design Group, N.Y., op. cit.

[175]Dalya Grosser, "An Exploration into the Limitations and Morphology of Slab High-Rise Housing," (unpublished paper, 1974), pp. 4-6.

[176]This method was developed among others by the Princeton Research Center for Urban and Environmental Planning. In Planning and Design Workbook for Community Participation. (Princeton, PRCUEP, 1969).

CHAPTER V

CONCLUSION

Cities everywhere in the United States are experiencing the problem of middle-class families fleeing to the suburbs leaving with, among other problems, underutilized downtown shopping and theatre districts, a shortage of tax dollars and of white collar labor. The purpose of this thesis was to evaluate a proposal made in Chicago to keep whatever middle-class families were still living there--in the city. An analysis was made of three key issues affecting the possible success of this South Loop New Town proposal. These three issues were 1) the residential neighborhood, what should it look like and who are its users, 2) Density and mixed use--how dense can a residential community be and what kinds of land uses mix well with it, and 3) Residential open space - what kinds of recreational areas, streets and communal spaces are necessary and how should they be designed.

In order to reason out when certain aspects of a proposal have been and could be, considered, it was first necessary to lay out what does and could take place in the different phases in the life of a building project. The process of constructing housing has two general phases. In the first phase pre-development, the relevant issues can be taken up and dimensioned, with an extensive search of the literature, to see when and how the resolution of

these problems could affect the success of this project. Design guidelines can be set up and then the buildings are designed.

It was recommended that a log be kept, documenting the history of a particular project or building which is undergoing this process for the purpose of constructing a case study of the project after it is completed and occupied. All the participating interest groups which are affected and their roles in this project can be analyzed. During the design stage the log can keep a record of the designer's and developer's assumptions about how the users will use these buildings so that later these hypotheses can be tested post-occupancy, during the post-development phase. All areas which are subject to modification are discussed and strategies for encouraging users to adapt their environment post occupancy are suggested.

At the present time the Chicago 21 Corporation is planning to build middle class neighborhoods here, at very high densities. In this paper, it was demonstrated how many decisions made throughout the programming process will affect the success of the project. In summary, in the area of "creating neighborhoods" from scratch it was pointed out that different users are attracted to different densities. Housing at extremely high densities (as was demonstrated these actually were) may satisfy the needs of the wealthier segments of the population but may not be attractive to less well-off families, especially the ones with children.

Strategies for overcoming the disadvantages of the high-

density lifestyle were presented, such as the kinds of attention to amenities and details that would at least partially compensate for the drawbacks. It was noted that neighborhoods have distinguishing physical characteristics which make them special such as clear edges, activity centers, landmarks, street furniture and general level of maintenance and whatever other characteristics encourage pedestrian traffic and street life. Decisions about these characteristics are and could also be made at various times during the life of a project to help insure the creation of "nice" neighborhoods here.

Neighborhoods, also, have special social characteristics. It was determined which kinds of people would <u>want</u> to live in the inner city of Chicago, and what kinds of people the city government and downtown business district interests would like to attract.

Briefly, some other points that were made were that if the densities are too high, that an adequate amount of semi-private recreational areas may not be able to be provided. These areas need to be sufficiently large to make differentiation of them possible in order that the various needs of the different age groups and social types, are met. Also middle class people like having their <u>own</u> turf (as opposed to publicly owned parks) nearby which they can use in evenings, etc, and conveniently. In addition, the daylighting, privacy and noise requirements of these families are harder and harder to meet as the density levels reach ever higher towards their upper limits.

Strategies were also suggested for incorporating the needs

of the future users into the design process and later into their own homes, post-occupancy. Designers are encouraged to try and leave some modification options open to future user discretion--alterations they can make that will insure that the new environments have the ability to meet their particular needs for self-expression and individuality of dwelling units.

Other issues such as mixed land use come up early in the pre-design programming stages, when location and size for commercial and educational facilities are established. If these service areas are located inconveniently for tenants, owners or shopkeepers, then they may not be successful, not only in financial terms but at playing the role they are capable of, in the creation of lively and safe neighborhoods. In the post-development stage careful consideration must be given to what kinds of stores should the management rent to, which will serve the needs of residents, provide adequately high rentals and insure the status of the neighborhood.

This paper especially emphasized the need for a feedback study to evaluate user satisfaction, how it could be done and the role that a case study done on the entire project would play in insuring the continued success of the new town venture. It is hoped that the city planning officials of Chicago and the developers will re-examine some of their goals in the light of this study. It might be useful for them to reconsider, in particular, certain decisions concerning the location and amount of mixed use, the amount of designated semi-private recreational open space for residents,

and whether or not to accept subsidies which would bring the prices into the affordable range of more families. The place to consider these and other issues is early in the pre-design programming stages as well as post-development.

Above all, this paper avidly supports the proposal for a New Town here, though with serious words of caution about some of its conditions, such as the very high density currently advocated. In conclusion, it is a project certainly worth completing, if it can truly offer an alternative lifestyle to middle-class families who want to remain in the inner city.

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