

FITLER SQUARE  
A Comprehensive  
Design Analysis

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Fitler Square is a small public park in the southwest corner of Philadelphia's Center City area. What follows is a comprehensive design analysis of Fitler Square -- an analysis of how well the design of the square meets the needs of its users. By "comprehensive analysis", I mean a description and appraisal of ~~the~~ design components which together form the whole that is Fitler Square, as well as a description and appraisal of ~~the~~ components which together form Fitler Square in the context of its surrounding neighborhood. Also included is a description and appraisal of every component which together formed the basis of this analysis. I have chosen to name these three constituent parts of the analysis "micro-analysis", "macro-analysis", and "meta-analysis" respectively.

It is hoped that the provision of such a breakdown of components, which in turn are broken down further according to human needs, will aid the reader in forming an organized and coherent picture of both Fitler Square itself, and of the particular system of processes by which this study is organized.

With an organized and coherent picture of both the components and the process system of this study, the reader will be better equipped to form an informed and insightful critical analysis, which in turn, may provide for all concerned a better understanding of the processes and components of designing successfully for people.

#### META-ANALYSIS

The process by which this study has been organized is based on Jon Lang's designing process model (Lang, 1974) (Figure#1). While Lang's model is intended for designing, and in particular,

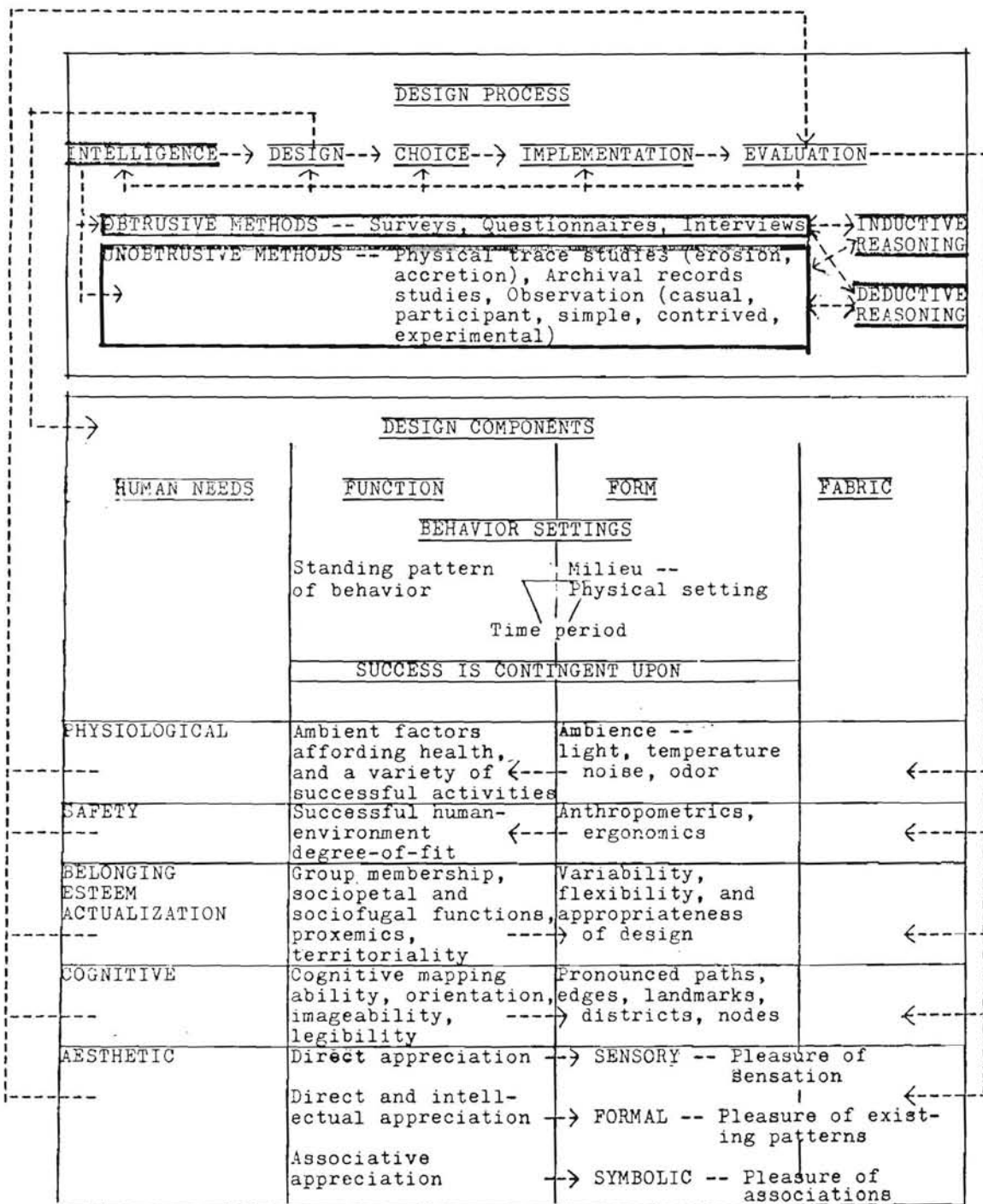


FIGURE #1

THE EXISTENCE OF PROBLEMS OR NON-PROBLEMS THROUGH DATA GATHERING.

● Data gathering methods "Acts upon"

designing specifically when it is perceived that human needs are not being met by an existing design, the model also lends itself to the largely evaluative function of analyzing existing designs, regardless of their present success or failure at meeting human needs. The first phase of Lang's process model is called the Intelligence Phase. It is here where the existence (or non-existence) of a problem in a design is established. One of the most efficient and widely accepted methods of determining the existence of a problem is to obtain relevant, telling data on the design's use.

There are, very loosely, two approaches one can use to collect data about the users of a space: obtrusive methods, and unobtrusive methods. Obtrusive methods are those which make the presence of the data collector known to the user. Examples of obtrusive methods are questionnaires, interviews, and surveys. The only obtrusive method I used in my data collection in Fittler Square was an extremely informal interview technique. Often in fact, this interview was so informal that it was initiated by a user, and not by me. Several times people asked why I was taking so many pictures, why I was "hanging out" at the square. I explained what my purpose was, and proceeded to ask innocuous questions about the user and his/her uses and evaluation of the park. But basically, I avoided obtrusive methods, predominantly because such a technique too often yields unreliable data. The shortcomings of obtrusive methods have been discussed in depth elsewhere (e.g. Patterson, 1974), so a detailed discussion of the associated problems will be skipped.

Unobtrusive methods are those procedures of data collection which do not interfere with the user, and the data collector's presence is unknown to the user. An example of an unobtrusive method is the physical trace study, in which the observer records the selective wear on some material which indicates use (e.g. worn grass), or conversely, in which use is evidenced by the selective deposit of materials (e.g. litter).

Another unobtrusive method is studying archival records, which aid the researcher with an indirect source of user trends. The nearest approximation to an archival records study in this study is my discussing the history and current use of Fittler Square with its designer.

The most important unobtrusive method for this study's purposes are observational methods, in which the researcher directly yet unobtrusively observes the user in action. It is this method which I employed most during the Intelligence Phase of the study.. However, I should add that due to the intimacy of the setting, it was virtually impossible to remain unnoticed by users, and as already mentioned, I recieved several inquiries concerning what I was doing.

I observed the activity in Fittler Square roughly every third day for a three week period in November, 1984. I staggered my visits so that sometimes I was observing in the early morning, sometimes in mid-afternoon, and sometimes in the late afternoon. I did not observe the square after dark. My visits were usually between one and two hours, during which time I had my lunch, took pictures, and basically took careful notice of all human activity

# DESIGN PROCESS

INTELLIGENCE--> DESIGN--> CHOICE--> IMPLEMENTATION--> EVALUATION

INTRUSIVE METHODS -- Surveys, Questionnaires, Interviews --> INDUCTIVE REASONING

UNOBTRUSIVE METHODS -- Physical trace studies (erosion, accretion), Archival records studies, Observation (casual, participant, simple, contrived, experimental) --> DEDUCTIVE REASONING

## DESIGN COMPONENTS

<u>HUMAN NEEDS</u>	<u>FUNCTION</u>	<u>FORM</u>	<u>FABRIC</u>
	<u>BEHAVIOR SETTINGS</u>		
	Standing pattern of behavior	Milieu -- Physical setting Time period	
	SUCCESS IS CONTINGENT UPON		
PHYSIOLOGICAL	Ambient factors affording health, and a variety of successful activities	Ambience -- light, temperature noise, odor	
SAFETY	Successful human-environment degree-of-fit	Anthropometrics, ergonomics	
BELONGING ESTEEM ACTUALIZATION	Group membership, sociopetal and sociofugal functions, proxemics, territoriality	Variability, flexibility, and appropriateness of design	
COGNITIVE	Cognitive mapping ability, orientation, imageability, legibility	Pronounced paths, edges, landmarks, districts, nodes	
AESTHETIC	Direct appreciation	SENSORY -- Pleasure of Sensation	
	Direct and intellectual appreciation	FORMAL -- Pleasure of existing patterns	
	Associative appreciation	SYMBOLIC -- Pleasure of associations	

FIGURE #2

## DESIGN COMPONENTS

- Data gathering methods "Acts upon"
- Design components breakdown "includes"

around me.

My obtained data is enhanced via two modes through my observations: through inductive reasoning and deductive reasoning. For example, if I observe a woman walk into Fidler Square, sit down for twenty minutes, then walk out in the same direction from which she came (which I have in fact observed), I can deduce that she entered the square specifically to use the facility in such a manner, as opposed to my recording that a woman simply sat for twenty minutes, then left.

Once sufficient data is gathered about the users of a facility, one moves from the Intelligence Phase to the Design Phase (Figure# 3.), which for our purposes consists of an analysis of all the components which are combined to create the existing setting. These components have been called Utilitas, Veustas, and Firmitas by Vitruvius, Commodite, Delight, and Firmness by Wotton, Task, Form, and Technics by Norberg-Schulz. I prefer the more contemporary and alliterative words Function, Form, and Fabric.

A design's Functions are its expected affordances; what uses do its users expect from it? Form then, is the actual physical design, which either does or does not afford Function. Fabric is the material (or materials) used in the Form. It is Function and Form which most concerned me in my study of Fidler Square, yet as will be seen, Fabric inevitably plays an important role in the success or failure of a design as well.

Function and Form then, are the components, together with actual users, of what Roger Barker and Herbert Wright call behavior settings (Barker and Wright in Le Compte, 1974). Behavior settings consist of a standing pattern of behavior, a milieu, or physical setting, and a time period.

It is the ability of the Form of a setting to accomodate<sup>11</sup> specific Functions which determines a behavior setting's perceived success in meeting users' needs. The success or failure of a behavior setting can be more clearly perceived if both the needs of users are more closely analyzed, and if these needs' associated Form/Function components are more closely analyzed.

By using Abraham Maslow's hierarchy of human needs as a guide (Maslow, 1943), this components approach will clearly determine exactly which aspects of the behavior setting either succeed or fail.

The most basic human needs, according to Maslow, are physiological needs (food, shelter, etc.). For our purposes, physiological needs include the ambient factors of appropriate light, temperature, noise, and odor, which facilitate the use of a space. For example, as already mentioned, I did not observe Fitler Square after dark. This is both because too little light is present in the park at night, which infringes on a basic physiological need, and because potential users may not feel the park is safe enough from potentially dangerous elements of the populace. This second reason is less a physiological need, and more a safety need.

The function of safety needs, next in Maslow's hierarchy, refers to the need of humans to feel safe in their environment. For design purposes, this implies a Form which successfully accomodates human physical norms, so that human-environment interaction will not pose a safety threat to the user. Thus an analysis of the ergonomic success of Fitler Square's elements (in relation to anthropometric norms) is in order. How well, for example, do Fitler Square's sitting spaces accomodate the human form? This and



many other questions will be addressed in the micro-analysis.

Belonging, esteem, and actualization needs, which can be loosely lumped under the heading of social needs, are next in the Maslow hierarchy. How well does the Form of a space afford its potential social functions? Robert Sommer has found that seating arrangements can greatly influence the extent to which individuals socialize together (Sommer, 1974). He has coined the term "sociopetal" to refer to design settings in which social interaction is enhanced. "Sociofugal" settings, conversely, are settings which tend to restrict social interaction. A public setting should thus afford a variety of alternatives for users -- both sociopetal and sociofugal settings. Variety of seating in Fittler Square will be discussed in depth.

Also worth considering are the concepts of territoriality and proxemics (Hall, 1972). How much space do people expect to have control over while engaging in a specific activity? How much space do people desire between one another while conversing? Again, since people's activities and relationships vary, a space's Form should be varied and flexible enough so that a variety of territory-required activities and proxemic relationships can take place successfully.

Next are cognitive needs. Cognitive needs, for our purposes, are related to "imageability": "That quality in a physical object which gives it a high probability of evoking a strong image in any given observer;" and "legibility": "The ease with which ... parts can be recognized and can be organized in a coherent pattern." These terms and definitions are taken from Kevin Lynch's book "The Image of the City" (Lynch, 1960, p.3). Lynch says these

qualities are important when one attempts to orient oneself to an area, and when one attempts to create a reliable mental picture, or "cognitive map" of an area. Lynch says there are five elements which enhance imageability and legibility:

Paths: "The channels along which the observer customarily, occasionally, or potentially moves" (p.47).  
Edges: "The linear elements not used or considered paths by the observer" (p.47).  
Districts: "The medium to large sections ... conceived of as having two-dimensional extent, which the observer mentally enters 'inside of' and which are recognizable as having some common, identifiable character" (p.47).  
Nodes: "Points, the strategic spots ... into which an observer can enter, and which are the intensive foci to and from which he is travelling" (p.47).  
Landmarks: "A type of point reference, but ... the observer does not enter within them, (as) they are external" (p.48).

Although Lynch intends these elements to be used in the context of the entire city, in the micro-analysis, I have applied Lynch's concepts to Fittler Square itself, as well.

Maslow's last and "highest" need is the aesthetic need -- the need for beauty. We can distinguish between three types of aesthetics: sensory, formal, and symbolic.

Sensory aesthetics is the study of those Forms and Fabrics from which we gain direct sensory pleasure, due to their intrinsic qualities.

A pattern pleasing on a formal aesthetic level appeals to direct sensory processes, and also to certain higher intellectual processes. For example, one can appreciate the "interestingness" or "complexity" of certain patterns. Whether there is a biological predisposition toward appreciating certain forms is unclear, and is under intense debate.

Finally, something which is appealing on a symbolic aesthetic

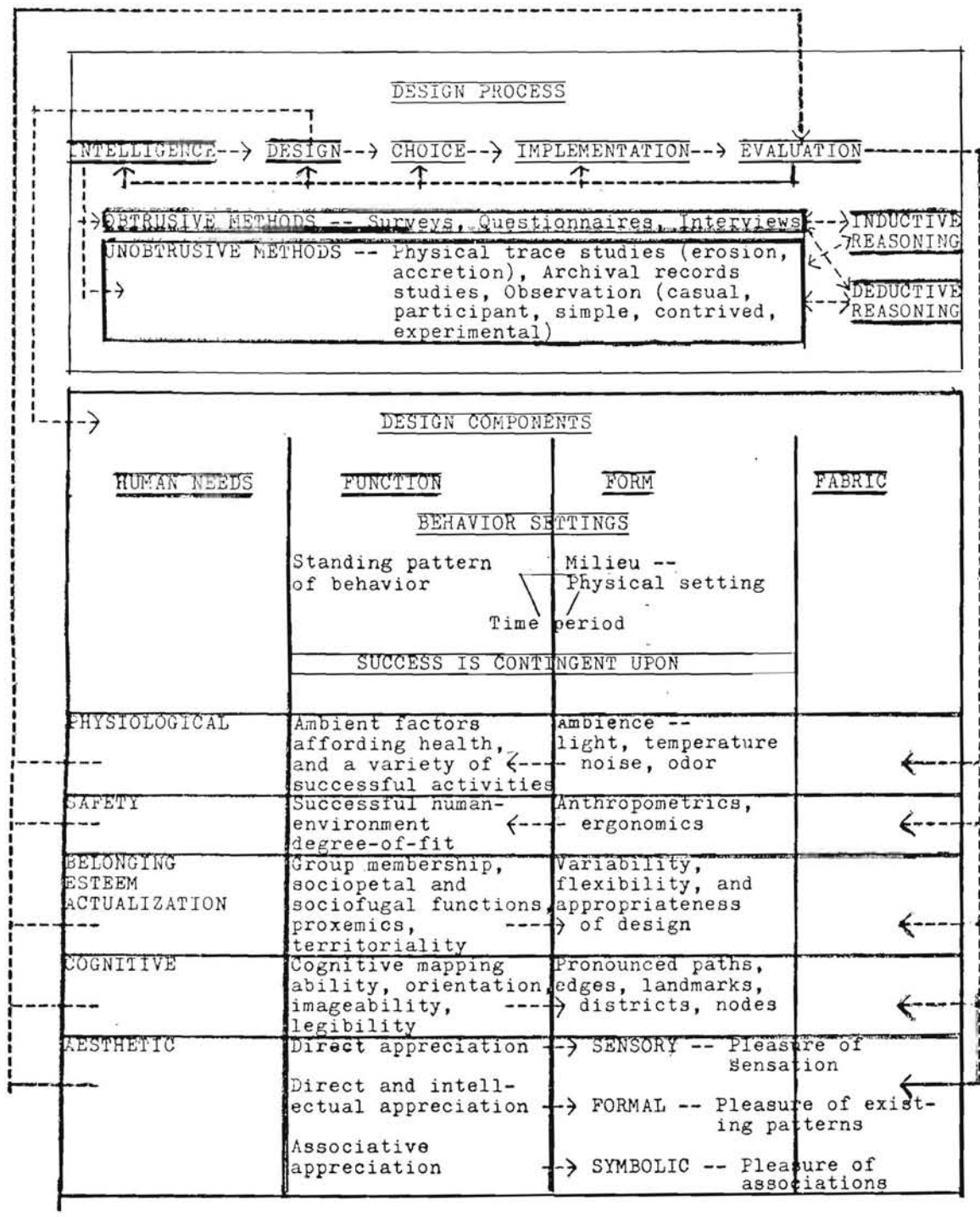


FIGURE #3

THE COMPLETE MODEL

- Data gathering methods "Acts upon"
- Design components "includes"
- Evaluation

level is appreciated due to the associations one makes with the Form/Fabric. For example, an appreciator of Old World cities may prefer the narrow twisty-turny streets of Greenwich Village over the grid-iron pattern of Midtown Manhattan because of the European quality of the former

Once the analysis of the Function, Form, and Fabric of a space is complete, Lang's design model moves into areas which are not appropriate for this study. Lang's Choice Phase involved "the evaluation of possible (usually partial) solutions and the decision either that one of them best meets the program requirements or, perhaps, that none is appropriate" (Lang, 1974, p.49). Both the Choice Phase and the Implementation Phase, in which a design is actually physically altered, are clearly beyond the scope of this study.

The final Evaluation Phase, however, is critically important for providing the feedback required to check one's progress in any study. For our purposes, each component of both the Design Process and of the Design Phase itself will be evaluated. Thus this evaluation includes constantly checking to make sure the conclusions I draw from my data are valid, through still more observation. And it includes an evaluation of my analyses of the Forms and Functions of Fittler Square. In particular, I evaluate my suggestions for alterations in the square's design, when my data indicate that user needs are not being met. This, of course, is a subjective evaluation based on objective criteria (Figure #3).

As a final point, I add that no attempt has been made to firmly root my suggestions for alterations in reality: while most often, the alterations I suggest are indeed realizable, there are some

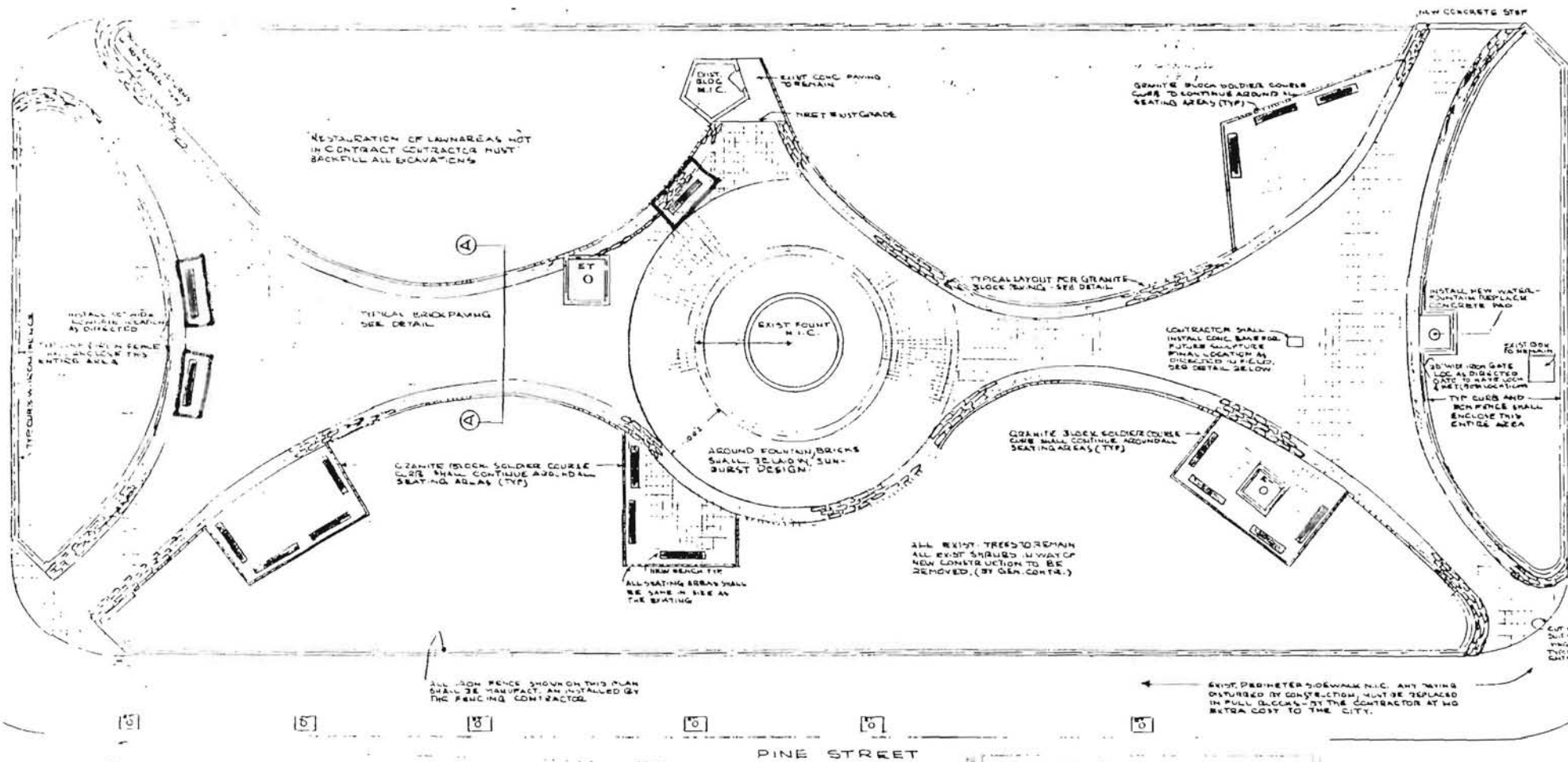


FIGURE #4  
SEATING IN FITTLER SQUARE

- Benches
- Sociopetal designs
- Sociofugal designs

suggested improvements (such as altering the grid-iron pattern of the surrounding blocks) which are suggested solely due to my belief that such an alteration would indeed enhance usability, regardless of the impracticality of implementation.

#### MICRO-ANALYSIS

Since Fidler Square is a public space, intended for public use, its Form should be able to accommodate a variety of Functions, as its users are certainly varied in their use preferences. And within this variety of Function, each specific affordance should be varied and flexible enough to please different tastes and preferences. Seating, for example, is one of the affordances that any public space should possess. Fidler Square's Form affords seating, as it should, and provides a modicum of variety and flexibility within this specific affordance (figure#4). William H. Whyte, in his book The Social Life of Small Urban Spaces, which reported on Whyte's ten-year study of urban spaces, reports that successful urban spaces tend to have large amounts of sitting space with a great capacity for variety. This variety can take several forms. Variety in the amount of sunlight is one consideration. Fidler Square's seating -- which consists entirely of benches -- possesses such a variety, as at any given time during a sunny day certain benches will be in the sun, while others will be in the shade.

Another ambient consideration is odor. The benches of Fidler Square are in direct proximity of open trash cans, which creates the potential for unpleasant odors violating users senses (Photo#1). These cans should either be removed from direct proximity to the benches, or should be replaced by enclosed cans, with flaps concealing



PHOTO #1

Trash can in proximity  
of bench

PHOTO#2

A well designed Fidler  
Square bench

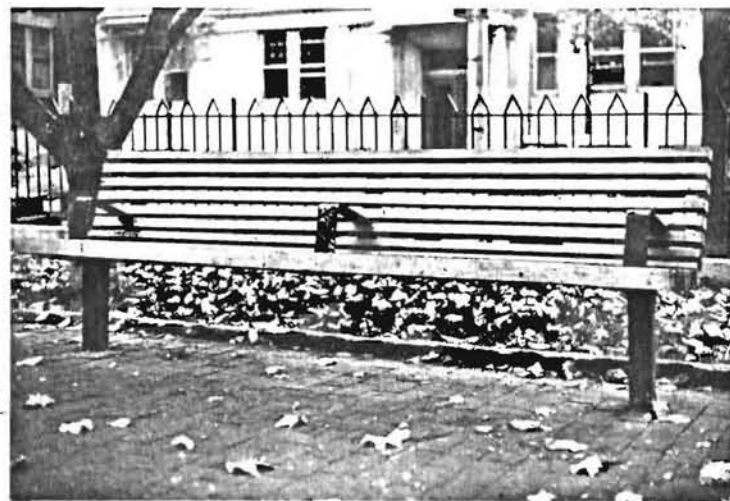


PHOTO #3

Sociopetal bench grouping

PHOTO #4

sociofugal bench setting



both unpleasant sights and unpleasant odors.

Ergonomically, says Whyte, a well designed sitting space will have ample room for the buttocks, and if it is a bench, will have a comfortable back with armrests (Whyte, 1980, p.27). Fidler Square's benches are indeed successful in meeting Whyte's criteria, as they possess well-angled backs, and armrests at appropriate heights above the actual sitting platform (photo#2).

The armrests serve an added function of partitioning each bench into two distinct sections, thus creating a territory for users which will not necessarily feel encroached upon if a stranger sits on the other half of the bench. The benches are fixed both in groups and singularly, providing the potential for both sociopetal and sociofugal functions (photos#3,4).

One drawback of Fidler Square's seating is that it is all fixed in space, reducing to a certain degree the amount of flexibility users have as to exactly where they wish to sit. Of course users may certainly use the ground for sitting, which reduces the infringement on autonomy drastically, but which also results in a reduction in comfort.

Another drawback is the lack of variety in types of seating. Sorely lacking in Fidler Square are sittable ledges, which can add variety to public spaces on many levels (more on this topic later).

Whyte & the presence of water as another component of a successful urban space, however, "It's not right to put water before people and then keep them away from it" (p.48). Fidler Square possesses a pleasant fountain, which, for the majority of the year (when it is on), creates a visually and sonically appealing



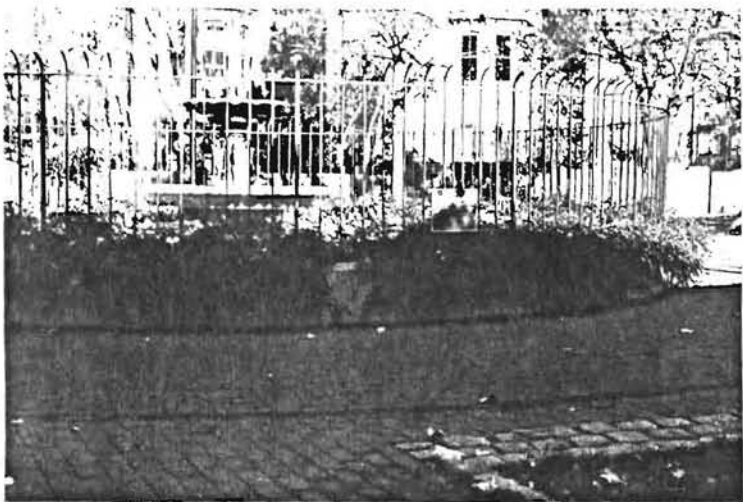


PHOTO #5  
The fountain  
PHOTO #6  
The curb

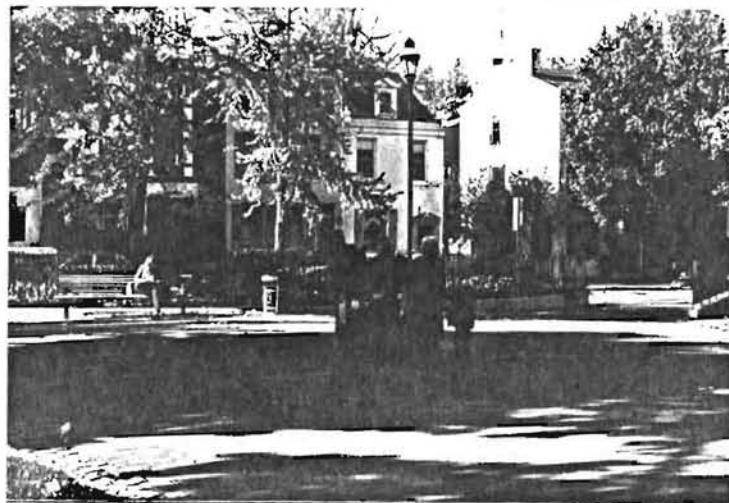


PHOTO #7  
No seating around  
the fountain  
PHOTO #8  
Climbing on the statue

showcase in the center of the square. Unfortunately, the fountain is surrounded by an iron fence, and no provisions have been made to comfortably remain in the fountain's direct proximity. There exists no ledge around the fountain's base for sitting. Instead, shrubs growing on the inside of the fence spill out over the edge of the base, thwarting anyone's attempt to make use of the feeble amount of concrete available for sitting (Photo#5). Small children, always enticed by water, feel far removed from the fountain unless an adult picks them up to see the forbidden water -- I witnessed just such a sequence of events several times in the course of my observation.

Whyte reports that it is a common phenomenon for people to convene near a large object in public spaces, perhaps for privacy reasons (creating a "wall" on one side), or for safety reasons (preventing an "attack" from behind) (pp.21-22). Whatever the reason, Fidler Square does not afford a comfortable way of accomodating this tendency. Around the fountain is a footpath, and then a small curb which borders on the grass. I have witnessed couples attempting to use this curb for sitting purposes, so as to be in the fountain's proximity. Needless to say, the curb does not lend itself to accomodating the human form (Photo#6). Surely, the provision of a sitting ledge, both around the base of the fountain itself and around the footpath-grass border would enhance the usability of this most desirable section of Fidler Square (Photo#7).

As one walks into Fidler Square from any one of its four entrances, in his/her direct sightline will be a small statue on a large, rectangular, polished stone base. These statues (on the east end is a ram, on the west is a grizzly bear) seem intended

for a purely aesthetic function. It is my opinion that these statues fail, not only according to aesthetic criteria, but according to safety and cognitive criteria as well.

A statue in a park, if it is accessible to people, often serves as a structure on which children enjoy climbing (the lions in front of the New York Public Library, for example). While children are sometimes seen climbing on the statues in Fidler Square, this only occurs when an adult is in direct proximity (Photo#8). The reasons for this are as follows: 1) The pedestal is high, flush, and smooth, making it nearly impossible for children to climb on their own 2) the statue is small and rather delicate appearing, seemingly not providing large enough surface to accommodate children safely 3) surrounding the pedestal is not grass, but the brick path, which will increase the likelihood of injury, should a child fall from the statue. Whether the park designers intended these statues to be played on or not, the fact is that people wish to play on them, and oftentimes do. Thus provisions should be made to accommodate this behavior.

Cognitively, the statues act as undistinguished landmarks in the park. They are easily forgotten and <sup>as</sup> little to the imageability of the square due to their diminutive size in relation to the large brick expanse around them.

Aesthetically, the statues are texturally, materially, and visually undistinguished. The smooth texture and materials of the pedestal <sup>contrast</sup> insufficiently with the expanse of brick around them. The color too contrasts insufficiently with the brick. This results in a poor break-up of space -- a poor formal aesthetic. (Photo#9).



PHOTO #9

A poor break-up of space

PHOTO #10

Climbable trees



These statues would be enhanced in virtually every way if they were surrounded by an area of grass. This would, as already mentioned, improve the safety of the statues. Cognitively, it would enhance imageability and orientation ability by creating a better defined landmark as one enters the park, and would provide better defined paths around the statues, enhancing legibility. The formal aesthetics of the area would be enhanced if grass were added around the statue by creating a greater sense of textural, material, and color contrast.

The trees of Fitler Square afford climbing better than the statues, and serve many other functions as well. Many of the trees in Fitler Square are small enough so that children can safely and easily climb them, without the degree of adult supervision which climbing on the statues necessitates. This is due both to the shapes of the trees, and the fact that soft grass surrounds them, as opposed to hard brick (Photo#10).

Whyte reports that people like to have access to the base of trees for sitting purposes. "This provides a satisfying enclosure; people feel cuddled, protected" (p.46). Most of Fitler Square's trees are totally accessible to users, and provide the only reasonable alternative to bench seating. Two of the square's trees are enclosed by fence, but this is due to the fact that they are on the walking path: the designers left open ground around the trees to allow for growth, and built the walking path around a protected fenced area. One of these trees has benches surrounding it on three of its sides. Besides offering a comfortable setting, the tree also serves to enhance the privacy of those sitting on the bench behind it (Photo#11).



PHOTO #11

Privacy by the tree

PHOTO #12

The boulders



Trees also provide shade, which, depending on the time of year is either more desirable or less desirable than sunlight. Fitler Square's trees are big enough, small enough, placed close enough together, placed far enough apart, to accomodate many desires for sun and shade.

There is one more climbable strucure in Fitler Square, and that is a small collection of implanted boulders in the southeast corner (Photo#12). These boulders afford play for children better than the statues due to their size and accessibility. However, based on my observation it seems they are less desirable than the statues for a variety of reasons: 1) they are not centrally located, which reduces both their noticeability as structures to play on, and, if discovered, reduces the visibility of the user: kids like to be seen as they conquer a structure, and adults like to see them do it! 2) the boulders are too accessible to kids -- the statues are desirable to play on because it is difficult for kids to get up on them. 3) the statues facilitate kids' imagination: they can pretend to be riding a wild bear, or tackling a ram. A rock is always a rock.

The buildings surrounding Fitler Square are the last Forms which have a direct impact on Function. On three of Fitler Square's four sides are blocks of three to five story residences (Photo#13). On the fourth (eastern) side is a single story bar/restaurant. These structures have a direct impact physiologically, cognitively, and aesthetically on the users of Fitler Square.

Physiologically, the buildings provide warmth due to the fact that they greatly reduce the windiness of the area. There were days when I went to Fitler Square that the wind was quite strong



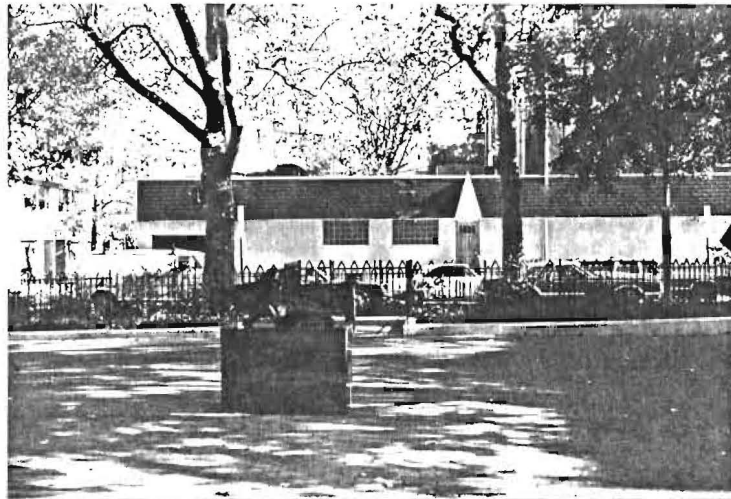


PHOTO #13

The western edge

PHOTO #14

The eastern edge





especially while crossing the Schuylkill River, while in Fidler Square, only a gentle breeze was felt. Reduced wind certainly enhances the square's usability. Also, the buildings, as the trees, provide shade in certain areas. These areas are largest in the early morning and late afternoon when the sun is lowest in the sky.

Cognitively, the buildings enhance the sense of enclosure of the space, increasing the sense of intimacy and security. The buildings also better define the edges of the square. The eastern edge, with its single story structure, detracts from the sense of enclosure and pronouncedness of the edges (enclosure will be discussed in greater depth below) (Photo#14).

Aesthetically, the buildings provide a symbolic aesthetic of "old world charm", as well as providing a rather successful formal aesthetic.

#### MACRO-ANALYSIS

Now that we have analyzed the component Forms and associated Functions of Fidler Square, we can begin macro-analysis. This macro-analysis consists of two parts. First will be a discussion of the park as a whole: how does Fidler Square as a whole meet the needs of its users. After this will be a discussion of the park in its relationship to the surrounding urban environment.

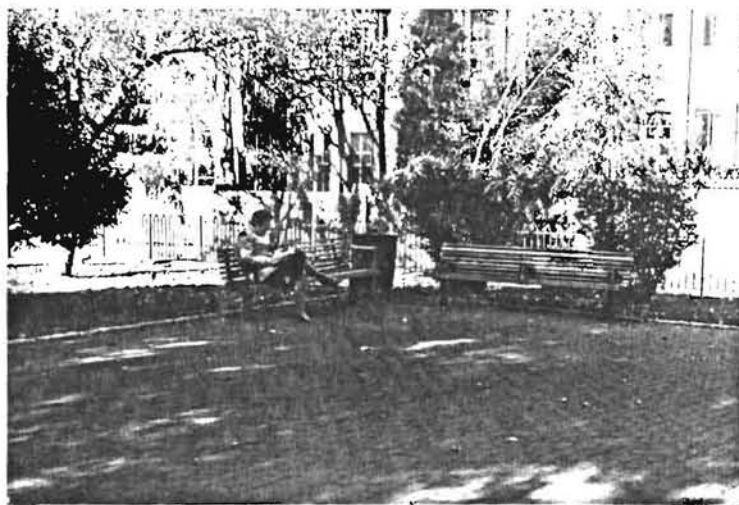
Jane Jacobs, in her book The Death and Life of Great American Cities, devotes a chapter to the use of neighborhood parks. Jacobs stresses that a successful neighborhood park will be designed to provide for a wide variety of uses. She states that there are four elements of design which successful parks seem to possess. These are intricacy, centering, sun, and enclosure (Jacobs, 1961).

PHOTO #15

Nearby recreation  
facility

PHOTO #16

"I come and sit here  
every day".



The notion of intricacy centers on a park's ability to accommodate a variety of users at all times. "Even the same person comes for different reasons at different times; sometimes to sit tiredly, sometimes to play or to watch a game, sometimes to read or work, sometimes to show off," etc. (p.103). This intricacy of uses implies an intricacy of design. While Fidler Square does offer a variety of uses to certain segments of the population, it lacks provisions for other segments. Specifically, due to its abundance of sitting space and dearth of recreational facilities, which attract loud youngsters, the square is a pleasant place for the elderly to convene. (there is a recreation facility just two blocks west of Fidler Square, with a variety of provisions for teenagers -- Photo#15). Oftentimes I witnessed elderly women coming into Fidler Square to sit down for a spell, and then leave by the same route they entered the square. One woman in fact told me, "It's a lovely park. I come and sit here every day" (Photo#16).

The square also lends itself well to young families. Young mothers often bring their toddlers or infants into the park. Sometimes to play, sometimes to picnic, and sometimes just to sit (Photo#17).

From an economic viewpoint, the square seems more geared toward the wealthy, largely through a process of elimination. Poor people's use of public space is usually much more oriented to the street and closer to commercial areas where the city provides a greater amount of sensory input. Some studies (e.g. Ladd, 1978) indicate that the inner city poor tend to fear the solitude of quiet areas in the city, feeling that their safety might be threatened by

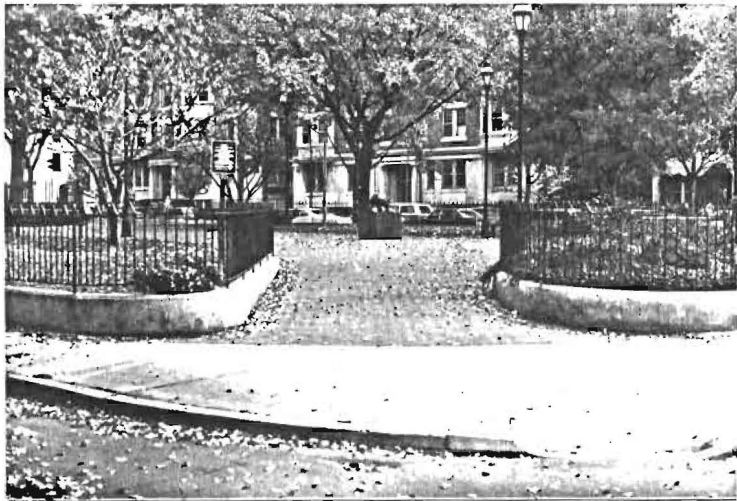
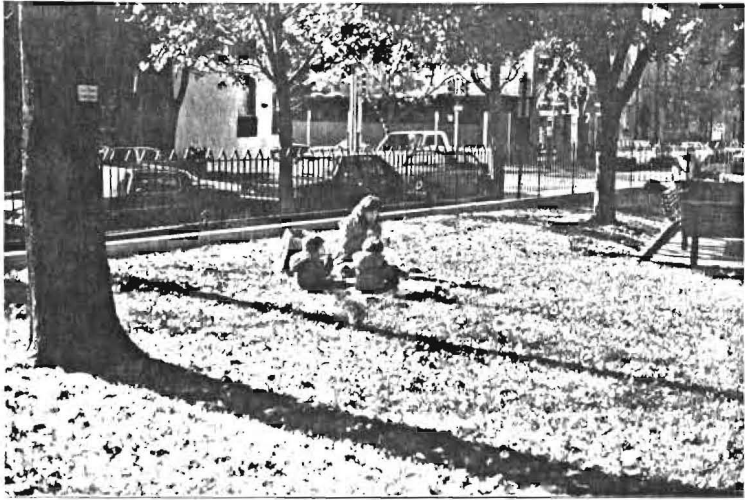


PHOTO #17

Picnicking on the grass

PHOTO #18

Anti-climactic sightline

potential criminals who thrive in quiet areas.

Jacobs defines centering as "a place ... commonly understood to be the center -- at the very least a main crossroads and pausing point, a climax" (p.104). As already discussed, the fountain in Fidler Square provides an obvious, though largely inaccessible center of activity. This inaccessibility is particularly unfortunate, for as Jacobs writes, "the finest centers are stage settings for people" (p.105).

The success of Fidler Square in providing variety in the amount of sunlight, Jacobs' third element, has already been discussed.

Jacobs' fourth element, enclosure, requires a bit more expounding than her other three elements. Enclosure, normally provided by buildings, should be as complete as possible in a neighborhood park, in order to better define the park's shape and its "thereness." Parks without a good sense of enclosure promote a sense of incident- alness and vagueness in their function. Enclosed parks are more fully integrated with the surrounding urban environment. Camillo Sitte, in his analysis of successful old European towns and cities, City Planning According to Artistic Principles, discusses at length the subject of enclosed public squares. Sitte writes that among other evils, the grid-iron street pattern of recently built cities has detracted from the sense of enclosure in public squares. The breaks in enclosure at each corner of modern day squares "make(s) each block of buildings stand out as isolated as possible, thus preventing any coherent total effect" (Sitte, 1965 reprint, p.33). This is exactly what occurs in Fidler Square. While buildings on three of its sides enclose the square effectively and, as stated earlier, charmingly, the corners of the square, where the streets

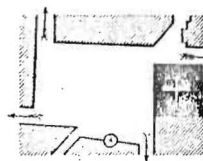


FIGURE #5

ENCLOSURE IN AN OLD STYLE  
PUBLIC SQUARE

Taken from Sitte, City  
Planning According to  
Artistic Principles, p.34

intersect at right angles, create a break in the cohesion of enclosure. Fidler Square's eastern edge is an even more serious breach of enclosure, which sorely detracts from cohesion.

Sitte greatly prefers the characteristics of old town squares where narrow streets meet the square at odd angles. This enhances the sense of enclosure, for from any single view within the square, rarely more than one break of enclosure is perceived (Figure#5).

Yet to be discussed are Kevin Lynch's cognitive criteria of legibility and imageability. The paths, edges, nodes, and landmarks within Fidler Square are pronounced enough to be successfully legible and imageable, with certain reservations (Figure#6).

The two statues in Fidler Square serve as poor landmarks. Their aesthetic dissatisfaction lead to a poor ability to evoke a powerful image. This is a particularly important shortcoming, because the statues are the first structures potential users see as they approach the entrances to the park.(Photo#18).

The paths are well pronounced, and possess the functional form of criss-crossing the park, which serves to encourage walking through the park as opposed to around it. Virtually every person whom I observed using the park merely as part of their walking route did so by crossing the park diagonally. Only around the statues is path space too great, which reduces legibility by not providing an obvious route of travel.

Another landmark which in a certain sense detracts from legibility is the fountain. Because the fountain is stationed in the dead center of the square, it obstructs the sightline from corner to corner -- the path, as just stated, most often traversed by users (Figure#7).

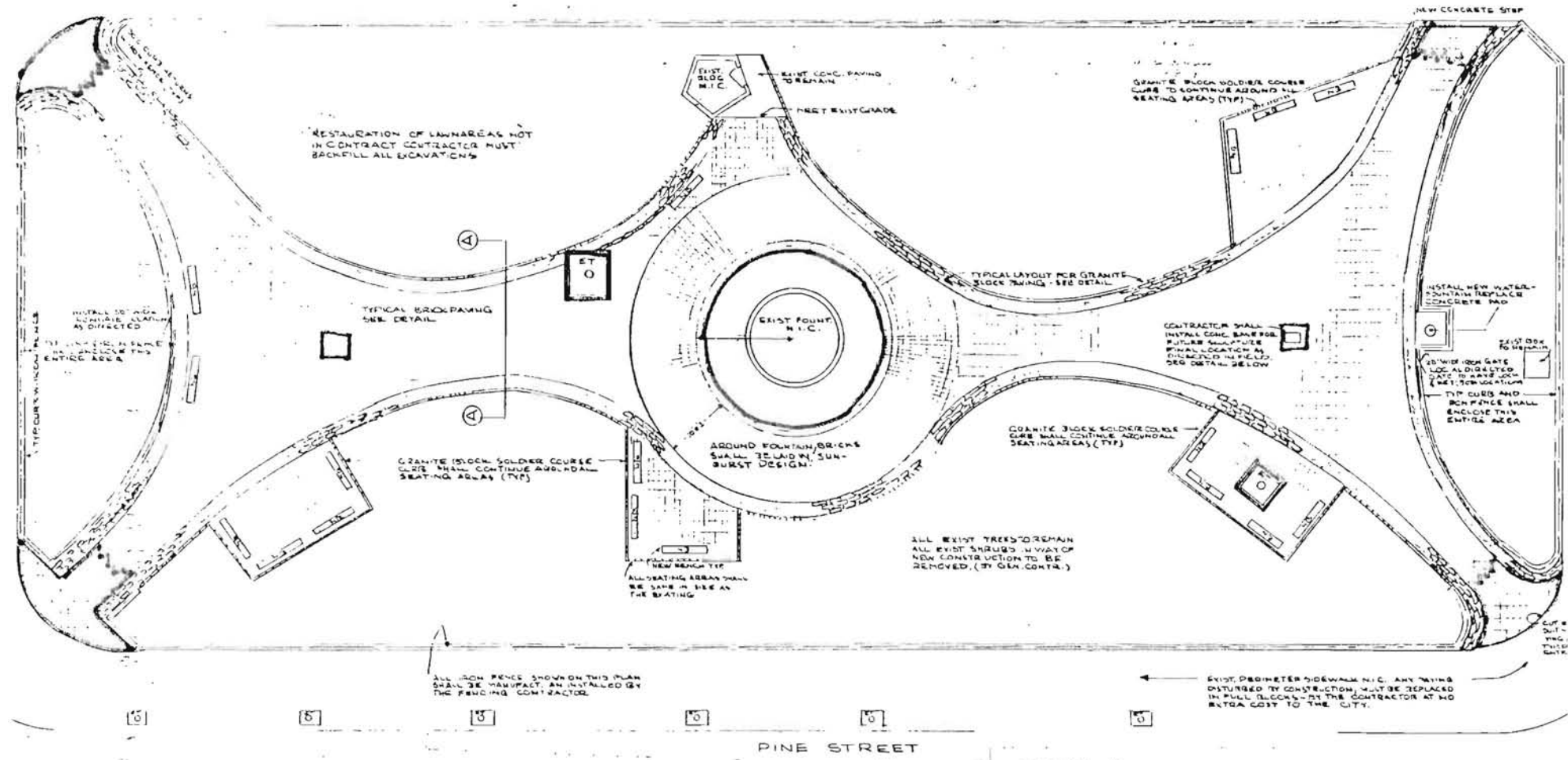


FIGURE #6  
Lynch's Elements

- Paths
- Edges
- Nodes
- Landmarks



Camillo Sitte discusses some of the reasons landmarks, such as statues, should be placed away from the center of squares, leaving them open for activity. In old town squares, this is what occurs. Sitte explains this occurrence by likening the evolution of a town square to that of a field fresh after a snowfall. Lines of transportation and communication erode definite paths in the field, while in the as yet untouched snow of the intervening spaces, children erect snowmen. Hence "To the ancient rule of placing monuments around the edge of public squares is thus allied another ... : to place monuments and especially market fountains at points in the square untouched by traffic" (p.24).

Aesthetically too, the fountain might indeed be better away from the square center, specifically, at the location of one of the statues. The fountain would provide a more successful formal aesthetic due to its prominently filling one section of the square, as opposed to acting as the entire square showcase, which it does not quite succeed in doing: in its present location, it is simply not that impressive a structure.

Moving to the said location, the fountain (an intrinsically attractive form), would also provide a much more attractive greeting to potential square users. As Whyte says, water in a public space increases use. So it follows that the sooner water is visible to potential users, the more likely they will actually enter, use, and enjoy the park. This is especially true at Fintler Square, since its nodes, or openings are solely in the corners -- near to where the statues now are, away from where the fountain is. Sitte: "It is precisely those market fountains which seem to stand on the oldest foundations that are most often found to be unsymmetrically

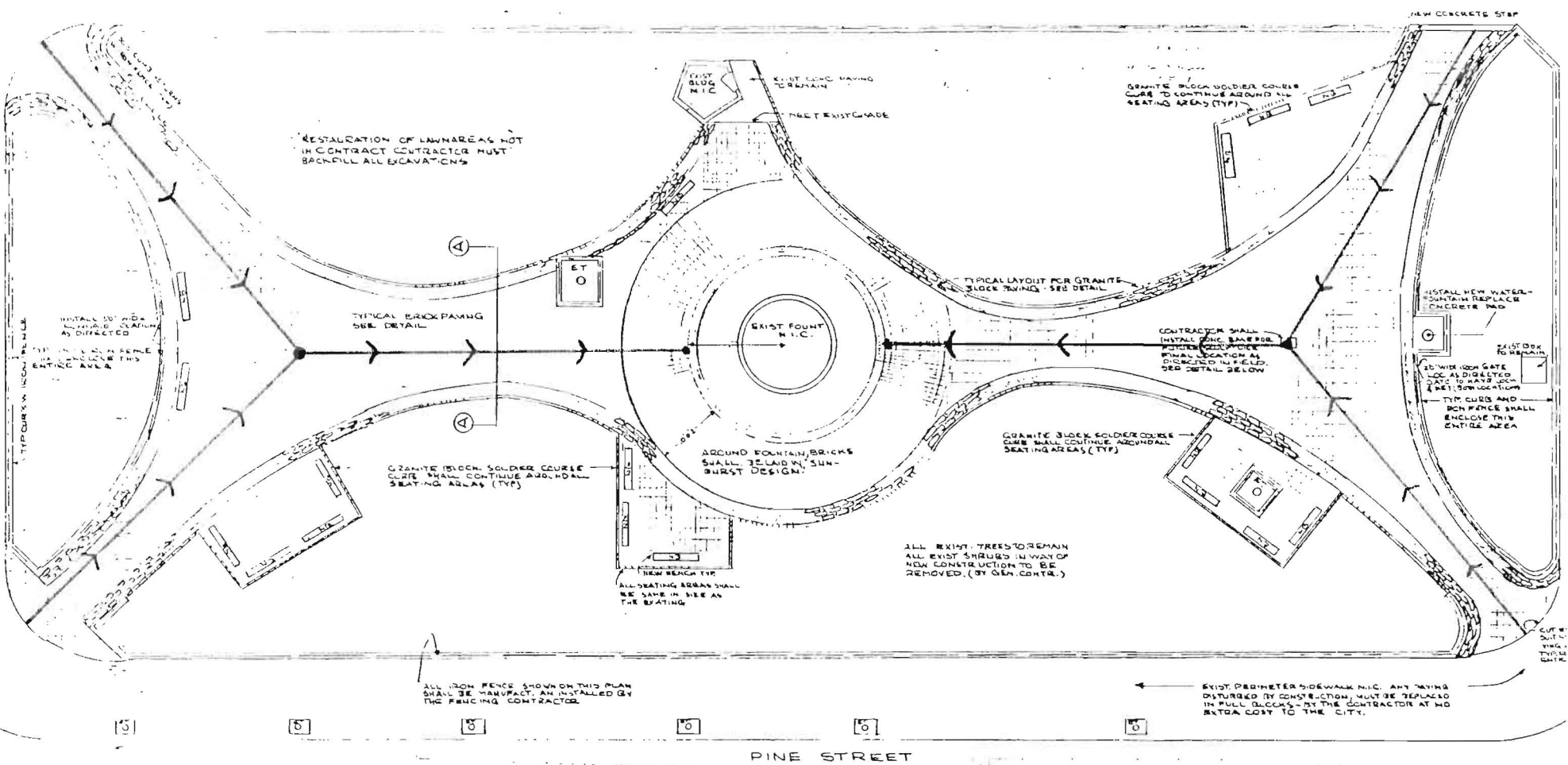


FIGURE #7  
SIGHTLINES

- Sightlines
- Obstructions

situated ... in the square -- and, as a matter of fact, usually next to the opening of a major street at the most important corner of the square" (p.22).

It should certainly be added that some neighborhood parks are successful simply at pleasing the eye. Jane Jacobs cites Gramercy Park in Manhattan, a private facility not open to public use, as successful on this level. Fitler Square, given its aesthetic qualities already discussed, would seem successful, ~~regardless~~ of its Form's ability to accomodate Function.

In relationship to the surrounding neighborhood, Fitler Square provides a sense of community identity, and a sense of pride for local residents. Peter Von Chamier, the landscape architect who designed Fitler Square for the Philadelphia Recreation Department told me it was largely community donations which paid for the renovation of Fitler Square about four years ago. Mr. Von Chemier also said that the park is maintained by the community itself. Obviously, nearby residents indeed take great pride in Fitler Square, and surely it has served to promote a sense of community in the area. In a personal past experience dealing with an acquaintance from the Fitler Square area, I remarked what a nice section of the city it is. The resident agreed, saying she really enjoyed living in the square's proximity.

However, there are certain problems one may encounter when in the neighborhood. This I have noticed both in my own experiences with the square, and in friends experiences, whom I have questioned: people often <sup>know</sup> the general area of Fitler Square, but cannot say exactly where it is. Due to the grid-iron pattern of Philadelphia, the exact location of the square (which fits squarely (!) into the



FIGURE #8

Foor imageability --  
the surrounding area

- Fitler Square
- The Neighborhood
- The Census Tract



PHOTOS #19,20

Half a block away --  
where's Fitler Square?

existing pattern) is easy to forget. Another way of saying this is that cognitive mapping ability is hampered due to a too-regular patterning, as opposed to the pronounced nodes, landmarks, and districts which typify a highly imageable city (Figure#8).

The grid-iron pattern creates another problem: sightlines. From the surrounding area, Fitler Square might just as well not exist, as it is virtually invisible from only half a block away (Photos#19,20). This violates many principles of good form. First, it greatly inhibits legibility and imageability. Second, it violates Whyte's finding that parks are more likely to be used if they can be seen from a distance (Whyte, 1980, p.58). Third, it betrays the ideas of Camillo Sitte by not providing oddly angled approaches to squares (hence in addition to adding to a sense of enclosure, these oddly situated approaches enhance sightlines from afar, and increase the likelihood of use).

Another problem in the imageability of Fitler Square lies not in the Form of the surrounding neighborhood, but in its Function. For several blocks on every side of the square there are fairly uniform appearing rowhouses. While the neighborhood itself is indeed pleasant (Photos#21,22,23), its Function does reduce the uses of Fitler Square.

This uniformity does not end at Function however. The 1980 census of Philadelphia Tract #12 (the tract in which Fitler Square lies) <sup>Figure #9</sup> indicates that of the 8319 people reportedly living in the tract, 7577 of these people are white (Tables#1,2). Per capita income in 1980 in tract #12 was \$14,165 -- almost \$10,000 greater than neighboring tracts 13 and 14, predominantly black areas (table#3). The ethnic demographic analysis shows that there is a

PHOTOS #21,22,23

The surrounding neighborhood

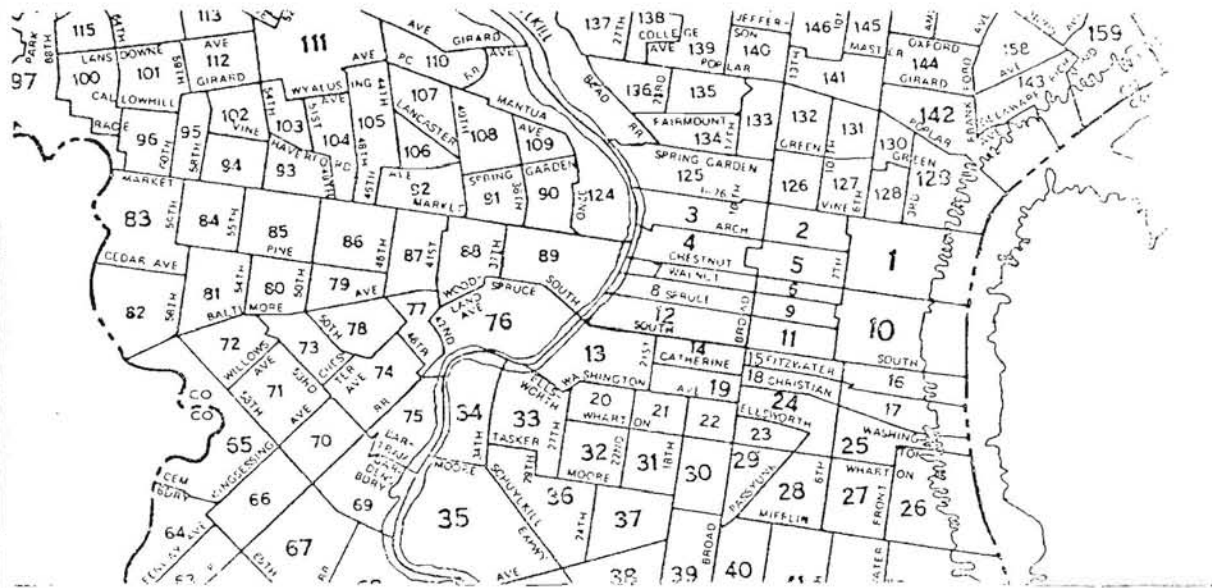


FIGURE #9

The Census Tract

high percentage of Russian immigrants (i.e. Jews), English, German, and Irish (Table#4). The age breakdown of the population shows a pronounced mode between the ages of nineteen and forty-four, as well as a substantial elderly population (Table#1). Thus the Fitler Square area can be characterized as largely residential, with a predominantly young, wealthy, white population.

One of the main points of Jane Jacobs' chapter on neighborhood parks in The Death and Life of Great American Cities is that parks are not intrinsically successful due to their Form. Rather, they require a setting in which there are a variety of services available so that at any given time of the day, the park will be serving a particular component of the population of the surrounding area. "A generalized neighborhood park that is stuck with functional monotony of surroundings in any form is inexorably a vacuum for a significant part of the day" (p.99).

We might thus be quick to conclude that Fitler Square is inevitably doomed to failure, regardless of its form, due to the functional monotony of its surrounding neighborhood (i.e. residential). However, we should not be so quick to judge, for Jacobs herself writes four pages earlier, "Too much is expected of city parks. Far from transforming any essential quality in their surroundings, far from automatically uplifting their neighborhoods, neighborhood parks themselves are directly and drastically affected by the way the neighborhood acts upon them" (p.95).

And herein lies Fitler Square's ultimate success. Earlier I stated that ultimately, the Form of Fitler Square affords use predominantly by the wealthy, the elderly, and by young married



Table P-1. General Characteristics of Persons: 1980—Con.

(For meaning of symbols, see Introduction. For definitions of terms, see appendices 4 and B.)

Philadelphia City, Philadelphia County, Pa.—Con.												
Census Tracts	Tract 0007	Tract 0008	Tract 0009	Tract 0010	Tract 0011	Tract 0012	Tract 0013	Tract 0014	Tract 0015	Tract 0016	Tract 0017	Tract 0018
<b>AGE</b>												
Total persons	279	2 448	8 110	4 230	5 213	5 993	8 319	5 132	3 469			
Under 5 years	3	29	8	77	146	129	236	279	132			
5 to 9 years	11	24	82	44	77	189	189	243	152			
10 to 14 years	1	27	89	30	201	92	183	335	179			
15 to 19 years	3	35	172	172	137	198	137	450	220			
20 to 24 years	13	66	157	176	309	164	161	469	243			
25 to 29 years	106	665	2 330	1 302	1 568	2 222	2 743	611	472			
30 to 34 years	38	193	1 023	358	951	610	1 268	433	372			
35 to 39 years	25	197	818	238	650	477	889	574	378			
40 to 44 years	28	216	554	292	499	376	633	713	564			
45 to 49 years	26	336	872	305	258	337	524	435	403			
50 years and over	5	320	760	236	153	336	528	410	316			
Under 18 years	—	13	39	23	47	39	63	107	51			
18 years and over	262	2 369	7 817	4 074	4 641	5 472	7 702	4 201	2 971			
18 years and over	261	2 369	7 756	4 040	4 552	5 439	7 611	4 033	2 858			
19 years and over	259	2 268	7 432	3 719	4 450	5 460	7 346	2 730	2 730			
20 years and over	51	722	2 047	705	817	1 384	1 076	1 076	1 076			
21 years and over	21	733	1 842	456	641	765	1 211	945	765			
Median	32.5	36.4	37.4	28.0	35.0	30.6	32.8	39.6	45.5			
<b>SEX</b>												
Total persons	130	1 393	4 676	2 134	2 729	2 876	4 194	2 866	1 880			
Under 5 years	1	18	45	37	76	59	108	138	68			
5 to 9 years	8	15	44	24	45	45	85	119	73			
10 to 14 years	1	20	42	12	65	44	92	167	98			
15 to 19 years	3	44	165	127	113	78	147	219	110			
20 to 24 years	18	213	548	299	187	254	296	250	126			
25 to 29 years	13	318	1 248	621	671	344	328	226	259			
30 to 34 years	14	364	1 350	457	291	364	253	156	156			
35 to 39 years	5	85	474	84	293	157	292	364	187			
40 to 44 years	9	136	565	170	273	159	302	414	328			
45 to 49 years	17	216	557	169	207	267	266	423	279			
50 years and over	2	216	531	151	91	248	273	214	214			
Under 18 years	—	16	11	24	27	32	53	21	21			
18 years and over	118	1 358	4 465	2 038	2 622	2 735	3 895	2 407	1 670			
18 years and over	117	1 350	4 454	2 021	2 554	2 720	3 643	2 392	1 670			
19 years and over	115	1 280	4 209	1 799	2 373	2 421	3 676	2 172	1 502			
20 years and over	24	546	1 373	350	212	348	349	65	655			
21 years and over	23	517	1 253	323	571	501	759	77	531			
Median	29.9	34.8	32.5	26.2	34.2	30.3	32.4	43.5	48.9			
<b>HOUSEHOLD TYPE AND RELATIONSHIP</b>												
Total persons	279	2 448	8 110	4 230	5 213	5 993	8 319	5 132	3 469			
Married-couple families	77	2 372	8 109	3 547	5 136	5 660	8 111	5 141	3 149			
Nonfamily households	13	1 704	5 752	2 757	2 875	3 024	5 027	2 722	1 412			
Family householder	29	377	1 308	472	1 146	799	1 336	1 134	676			
Nonfamily householder	154	1 322	4 445	2 275	1 729	2 005	3 691	1 688	967			
Living alone	122	1 161	3 894	1 827	1 445	2 326	2 954	823	813			
Living with others	25	261	1 052	392	284	679	1 840	864	104			
Married-couple families	31	187	612	218	913	529	1 054	2 151	1 114			
Nonfamily households	25	220	452	540	401	911	926	384	339			
Living alone	7	76	1	28	35	197	11	11	70			
Living with others	18	144	451	512	366	714	915	373	269			
Persons per household	1.49	1.39	1.41	1.44	1.79	1.54	1.61	2.42	2.07			
Persons per family	2.66	2.20	2.30	2.40	2.62	2.45	2.57	3.37	3.10			
<b>Persons 65 years and over</b>												
Married-couple families	31	656	1 638	541	511	673	1 054	1 045	807			
Nonfamily households	30	655	1 627	521	497	676	1 043	764	764			
Family householder	18	615	1 315	479	414	620	751	550	550			
Nonfamily householder	18	357	916	384	132	406	362	389	288			
Living alone	4	90	208	43	95	35	135	128	73			
Living with others	36	99	690	299	78	269	616	261	215			
Persons per household	1	14	35	3	12	26	13	69	78			
Persons per family	—	—	—	—	—	—	—	—	—			
Persons per group quarters	1	1	—	14	48	8	2	43	—			
<b>KEY TYPE BY PRESENCE OF OWN CHILDREN</b>												
Families	29	372	1 308	472	1 146	799	1 336	1 134	676			
With own children under 18 years	7	67	236	104	369	229	427	415	233			
With own children 18 years and over	12	89	355	153	613	317	567	797	443			
Married-couple families	23	261	1 052	357	947	636	1 044	484	303			
With own children under 18 years	7	29	160	69	307	129	111	83	83			
With own children 18 years and over	12	58	224	122	492	264	554	266	179			
Female householder, no husband present	3	77	168	69	168	121	213	254	296			
Living alone	—	—	—	—	—	—	—	—	—			
Living with others	—	—	—	—	—	—	—	—	—			
Persons per household	1	1	—	—	—	—	—	—	—			
Persons per family	—	—	—	—	—	—	—	—	—			
<b>RACE STATUS</b>												
White	144	1 078	3 349	2 019	2 519	2 645	3 833	1 853	1 365			
Black	78	562	1 255	1 215	925	1 843	2 171	818	566			
Hispanic or Latin American	31	265	1 127	418	591	1 116	548	356	356			
Other race	17	45	155	86	91	129	125	207	208			
Median	13	121	492	153	254	254	427	142	106			

TABLE #1

Number, ages, of all persons, census tract 12, Philadelphia, 1980

General Characteristics of White Persons: 1980—

Census Tracts  
[400 or More White Persons and  
400 or More of a Specified Racial  
Group]

## AGE

Total persons	3 919	2 733	944	3 263	408	2 643	7 577	758	1 016	1 299	1
Under 5 years	30	128	14	112	3	165	79	27	12	27	1
5 to 9 years	96	138	13	118	—	172	28	35	54	54	—
10 to 14 years	156	171	27	158	—	172	45	32	32	32	—
15 to 19 years	377	186	37	215	—	259	69	46	46	46	—
20 to 24 years	377	268	172	227	—	948	93	122	122	122	—
25 to 29 years	292	458	239	511	—	252	133	115	115	115	—
30 to 34 years	252	218	77	257	—	211	122	88	120	120	—
35 to 39 years	493	275	59	324	—	155	60	77	75	75	—
40 to 44 years	725	775	97	414	—	444	72	85	85	85	—
45 to 49 years	727	332	97	453	—	444	81	81	81	81	—
50 to 54 years	281	167	78	255	—	357	46	46	46	46	—
55 to 59 years	36	57	9	46	—	2	56	12	9	23	—
60 to 64 years	3 538	2 746	874	2 823	397	2 545	7 012	664	934	1 429	1
65 years and over	3 412	2 173	858	2 742	352	2 418	6 379	618	891	1 469	1
Median	3 116	2 133	876	2 662	335	2 338	6 465	572	939	1 358	1
Median	1 382	563	224	1 007	9	1 007	1 100	159	172	218	—
Median	1 228	618	208	925	7	356	1 056	144	153	229	—
Median	52.6	34.9	30.5	41.6	37.7	43.7	32.7	32.9	31.8	17.3	—

Female											
Under 5 years	26	65	7	64	2	51	16	13	13	13	—
5 to 9 years	67	70	8	55	—	81	18	15	15	15	—
10 to 14 years	91	73	10	84	—	82	24	17	17	17	—
15 to 19 years	208	97	20	109	—	14	173	29	47	26	—
20 to 24 years	210	149	23	171	—	23	512	44	47	25	—
25 to 29 years	138	201	145	212	—	56	1 261	62	132	271	—
30 to 34 years	140	116	39	153	—	72	571	41	51	37	—
35 to 39 years	250	145	30	170	—	157	265	32	41	37	—
40 to 44 years	423	194	51	237	—	175	274	51	74	51	—
45 to 49 years	371	210	55	284	—	179	261	45	42	42	—
50 to 54 years	142	101	59	236	—	231	351	35	23	45	—
55 to 59 years	15	24	2	31	—	—	25	3	2	10	—
60 to 64 years	1 913	1 196	477	1 593	11	670	3 556	329	437	703	—
65 years and over	1 812	1 157	457	1 524	11	357	3 516	318	426	671	—
Median	1 451	1 045	456	1 453	8	429	3 354	297	413	671	—
Median	712	471	152	836	—	515	1 020	155	155	155	—
Median											



couples with their toddlers and infants. And as we have seen in the macro-analysis (and as I have seen in my observations) it is exactly such a population which inhabits the surrounding neighborhood, and which uses the park. Thus it seems that Fittler Square has been designed, either by purpose or by chance, to accomodate the preferences of the majority of people who are potential users.

The lesson learned by the case of Fittler Square is clear: when architects design for the potential user population their designs' probability of success will be high. Too often architects design inappropriately given their user population. Either they design purely according to their own criteria, disregarding the user completely, or conversely, they design for the total population, of which only particular segments will be users. Fittler Square succeeds because it has been designed realistically, not idealistically, with the needs of the actual potential users in mind.

There is another lesson to be learned. The case of Fittler Square argues against the case for environmental determinism. More specifically, it is a shining example of appropriate design in that it is not attempting to implement an alteration of existing unjust societal trends. Since Fittler Square was designed with the surrounding (white, wealthy) population in mind, its designers are not attempting to force feed the surrounding community with inappropriate forms -- an alteration of uses, nor for the same reason is it attempting an alteration of users. Fittler Square succeeds simply by "giving the people what they want."

It may be sobering for idealistic architects, urban designers, and environmental psychologists to realize that they cannot alter the existing injustices in society merely by manipulating our

Table P-11 Income and Poverty Status in 1979: 1980—Con.

Table P-11 Income and Poverty Status in 1979: 1980—Con. (Data are estimates based on a sample; see introduction for meaning of symbols; see introduction for definitions of terms; see appendices A and B)

	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980
	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980	1979	1980
<b>Income</b>												
Households	195	1 651	5 793	2 754	2 875	3 807	5 016	2 090	1 634	1 085	978	1 096
Below \$10,000	22	221	649	272	159	601	699	709	404	139	259	420
\$10,000 to \$14,999	10	154	453	304	90	329	331	764	180	78	52	120
\$15,000 to \$19,999	51	189	273	207	129	256	377	301	192	68	100	93
\$20,000 to \$24,999	54	283	875	531	323	545	859	360	247	173	171	165
\$25,000 to \$29,999	17	243	840	342	381	516	655	170	155	154	84	190
\$30,000 to \$34,999	13	164	601	223	294	322	453	133	71	78	71	61
\$35,000 to \$39,999	3	97	643	154	486	463	677	98	68	76	123	115
\$40,000 to \$44,999	2	72	475	109	371	378	465	59	5	29	92	107
\$45,000 to \$49,999	7	80	512	66	227	319	500	38	12	36	70	52
\$50,000 and over	19 710	114 251	516 821	510 343	575 669	515 668	516 492	58 530	56 500	58 180	514 077	514 253
Total	510 166	518 758	526 556	513 187	521 525	523 609	517 045	59 096	517 901	520 515	517 954	511 959
<b>Unemployed households</b>	10	331	1 125	139	1 322	828	1 627	1 040	619	361	353	471
Below \$10,000	1 575	520	477	539	519	530	537	591	510 074	515 718	526 250	518 750
\$10,000 to \$14,999	521	205	522 600	547 734	549 724	540 411	539 797	513 727	512 460	518 741	520 102	524 058
\$15,000 to \$19,999	185	1 320	4 668	2 615	1 553	2 979	3 389	1 050	1 015	724	575	625
\$20,000 to \$24,999	19 455	512 625	515 425	519 720	519 637	512 708	513 054	56 973	54 924	56 060	510 573	511 356
\$25,000 to \$29,999	19 785	515 747	521 455	512 109	516 276	513 838	510 379	57 045	59 990	514 630	513 354	517 567
Total	51 500	512 345	534 457	510 127	519 127	519 316	510 935	59 837	511 455	515 993	517 530	519 731
Unemployed individuals 15 years and over	196	1 438	5 225	2 114	4 019	4 692	1 319	1 319	1 319	1 319	1 319	1 319
Below \$10,000	19 279	519 654	512 525	515 384	515 154	510 553	511 238	52 930	53 347	54 061	519 194	510 851
\$10,000 to \$14,999	55 795	511 457	518 023	518 023	518 023	518 023	518 023	518 023	518 023	518 023	518 023	518 023
Total	514 949	512 736	518 979	518 644	520 162	513 770	514 165	54 861	54 365	55 529	510 463	519 253
<b>Income type</b>												
Households	195	1 651	5 793	2 754	2 875	3 807	5 016	2 090	1 634	1 085	978	1 096
Below \$10,000	169	1 195	4 731	2 195	2 074	3 240	4 460	1 252	811	648	829	829
\$10,000 to \$14,999	522 623	517 730	513 571	512 683	514 478	512 376	527 460	513 248	511 393	517 137	520 575	517 665
\$15,000 to \$19,999	22	22	22	22	22	22	22	22	22	22	22	22
\$20,000 to \$24,999	53 998	54 991	54 991	53 553	53 553	53 553	53 553	53 553	53 553	53 553	53 553	53 553
\$25,000 to \$29,999	9	72	129	734	50	186	180	715	671	384	97	167
\$30,000 to \$34,999	17 855	51 529	52 320	52 997	51 243	52 498	52 381	52 993	52 723	52 613	53 878	52 070
Total	514 949	512 736	518 979	518 644	520 162	513 770	514 165	54 861	54 365	55 529	510 463	519 253
<b>Family income</b>												
Households	195	1 651	5 793	2 754	2 875	3 807	5 016	2 090	1 634	1 085	978	1 096
Below \$10,000	169	1 195	4 731	2 195	2 074	3 240	4 460	1 252	811	648	829	829
\$10,000 to \$14,999	522 623	517 730	513 571	512 683	514 478	512 376	527 460	513 248	511 393	517 137	520 575	517 665
\$15,000 to \$19,999	22	22	22	22	22	22	22	22	22	22	22	22
\$20,000 to \$24,999	53 998	54 991	54 991	53 553	53 553	53 553	53 553	53 553	53 553	53 553	53 553	53 553
\$25,000 to \$29,999	9	72	129	734	50	186	180	715	671	384	97	167
\$30,000 to \$34,999	17 855	51 529	52 320	52 997	51 243	52 498	52 381	52 993	52 723	52 613	53 878	52 070
Total	514 949	512 736	518 979	518 644	520 162	513 770	514 165	54 861	54 365	55 529	510 463	519 253
<b>Persons</b>												
Households	195	1 651	5 793	2 754	2 875	3 807	5 016	2 090	1 634	1 085	978	1 096
Below \$10,000	169	1 195	4 731	2 195	2 074	3 240	4 460	1 252	811	648	829	829
\$10,000 to \$14,999	522 623	517 730	513 571	512 683	514 478	512 376	527 460	513 248	511 393	517 137	520 575	517 665
\$15,000 to \$19,999	22	22	22	22	22	22	22	22	22	22	22	22
\$20,000 to \$24,999	53 998	54 991	54 991	53 553	53 553	53 553	53 553	53 553	53 553	53 553	53 553	53 553
\$25,000 to \$29,999	9	72	129	734	50	186	180	715	671	384	97	167
\$30,000 to \$34,999	17 855	51 529	52 320	52 997	51 243	52 498	52 381	52 993	52 723	52 613	53 878	52 070
Total	514 949	512 736	518 979	518 644	520 162	513 770	514 165	54 861	54 365	55 529	510 463	519 253
<b>Persons for whom poverty status is determined</b>												
Households	195	1 651	5 793	2 754	2 875	3 807	5 016	2 090	1 634	1 085	978	1 096
Below \$10,000	169	1 195	4 731	2 195	2 074	3 240	4 460	1 252	811	648	829	829
\$10,000 to \$14,999	522 623	517 730	513 571	512 683	514 478	512 376	527 460	513 248	511 393	517 137	520 575	517 665
\$15,000 to \$19,999	22	22	22	22	22	22	22	22	22	22	22	22
\$20,000 to \$24,999	53 998	54 991	54 991	53 553	53 553	53 553	53 553	53 553	53 553	53 553	53 553	53 553
\$25,000 to \$29,999	9	72	129	734	50	186	180	715	671	384	97	167
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designed environment,,but it is an extremely important notion to keep in mind. When these professionals realize that it is only political activism which can have any real impact on altering societal structure -- an extremely important and laudable endeavor -- then perhaps they will finally settle down, relax, and start designing with people in mind.

## LIST OF SOURCES

- Aas, Dagfin, "Observing Environmental Behavior: The Behavior Settings", in Behavioral Research Methods in Environmental Design, William Michelson, Editor. Dowden, Hutchinson and Ross, Stroudsburg, PA, 1975.
- Dreyfuss, Henry, The Measure Of Man, Whitney Library of Design, New York, 1967.
- Festinger, Leon, "Architecture and Group Membership", in People and Buildings, Robert Gutman, Editor. Basic Books, New York, 1972.
- Goodrich, Ronald, "Surveys, Questionnaires and Interviews" in Designing for Human Behavior, Jon Lang et. al., Editors. Dowden, Hutchinson and Ross, Stroudsburg, PA, 1974.
- Hall, Edward T., "Silent Assumption in Social Communication", in People and Buildings, Robert Gutman, Editor. Basic Books, New York, 1972.
- Hayward, D. Geoffrey, "Psychological Factors in the Use of Light and Lighting in Buildings", in Designing for Human Behavior, Jon Lang et.al., Editors. Dowden, Hutchinson and Ross, Stroudsburg, PA, 1974.
- Jacobs, Jane, The Death and Life of Great American Cities. Random House, 1961.
- Ladd, Florence C., "City Kids in the Absense of Legitimate Adventure", in Humanscape: Environments for People, Stephen Kaplan and Rachel Kaplan, Editors. Duxbury Press, N. Scituate, MA, 1978.
- Lang, Jon, "The Nature of Theory for Architecture and Urban Design", in Urban Design International, Winter 1979-80.
- Lang, Jon, and Burnette, Charles, "A Model of the Design Process", in Designing for Human Behavior, Jon Lang et.al., Editors, Dowden, Hutchinson and Ross, Stroudsburg, PA, 1974.
- Le Compte, William, "Behavior Settings as Data Generating Units for the Environmental Planner and Architect", in Designing For Human Behavior, Jon Lang et.al., Editors. Dowden, Hutchinson and Ross, Stroudsburg, PA, 1974.
- Lynch, Kevin, The Image of the City. MIT Press, Cambridge, MA, 1960.
- Maslow, Abraham H., Toward a Psychology of Being. Litton Educational Publishing, NY, 1968.
- Patterson, Arthur H., "Unobtrusive Measures: Their Nature and Utility for Architects", in Designing for Human Behavior, Jon Lang et.al., Editors. Dowden, Hutchinson, and Ross, Stroudsburg, PA, 1974.
- Sitte, Camillo, City Planning According to Artistic Principles. Random House, NY, 1965.
- Stea, David, "Architecture in the Head -- Cognitive Mapping", in Designing for Human Behavior, Jon Lang et.al., Editors. Dowden, Hutchinson and Ross, Stroudsburg, PA, 1974.
- Whyte, William H., The Social Life of Small Urban Spaces. The Conservation Foundation, Washington DC, 1980.