THE PUBLIC FRAMEWORK:
Some Thoughts About Public, Semi-Public, Social, Private Spaces and Their Interrelationship, So As to Encourage Spatial Interaction
Communal

by

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February 10, 1977

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Departmental Committee for Graduate Students
ABSTRACT

THE PUBLIC FRAMEWORK: Some Thoughts About Public, Semi-Private, Spaces and Their Interrelationship, So As To Encourage Social Interaction by Communal

Peter Nicholas Elton.

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE ON 10 FEBRUARY 1977 IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ARCHITECTURE.

This thesis concerns itself with an investigation and formal exploration into the range of semi-private, and public exterior spaces found in housing community design. Reference and personal observations have been recorded in a partial catalogue and some conclusions were applied to a "public framework" design for a rural site in Northboro, Massachusetts. Much of this process has been recorded in drawings, diagrams, and photos.

Thesis Supervisor: Jan Wampler
Title: Associate Professor of Architecture
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT ................. 1</td>
</tr>
<tr>
<td>HYPOTHESIS................... 3</td>
</tr>
<tr>
<td>CONCLUSIONS.................. 6</td>
</tr>
<tr>
<td>CATALOGUE............................. 8</td>
</tr>
<tr>
<td>DOCUMENTATION</td>
</tr>
<tr>
<td>SITE BACKGROUND INFORMATION................................. 11</td>
</tr>
<tr>
<td>SITE PLAN AND SECTIONS................................. 13</td>
</tr>
<tr>
<td>SITE DIAGRAMS................................. 11</td>
</tr>
<tr>
<td>SMALLER PIECE DIAGRAMS AND DESIGN................................. 23</td>
</tr>
<tr>
<td>BIBLIOGRAPHY................................. 38</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS................................. 40</td>
</tr>
</tbody>
</table>
HYPOTHESIS

The topic of this thesis resulted from an interest in the housing problem more specifically the "mass housing" problem. It seems that group, mass or conglomerate housing is and will be an increasing phenomenon in the U.S. The prototypical single family dwelling, in the past and present held as the American ideal is less economically viable to build, maintain and heat for a large segment of the population, than during much of the first two thirds of the 20th century. Additional consequences of such single family development is resulting in large scale suburban sprawl; an ineffective land use pattern that does not allow for a sufficient range of land uses and densities.

Many housing schemes and new communities built in the U.S. do not seem to deal with the variety of spaces between the extreme public and private. It appears that people require the fullest range possible to meet their personal needs, and to enable social interaction.

This range incorporates a series of spaces, of differing form, use and density and might be referred to as a hierarchy of spaces. This hierarchy allows a designer to incorporate certain necessary variety of places into identifiable sub-communities.

PROCESS

In order to understand the existence of such a hierarchy, an attempt was made at cataloguing the variety and types of conditions seen as favorable
qualities, from the references and from personal observations. (See Table 1). The categories are split into "linear" and "place" divisions. These titles refer to the form and movement patterns found in differing types of exterior spaces. It appears that a strongly directional, open ended location, such as a path, street, etc. (linear) exhibits very different use patterns from an enclosed space with little or no directionality, such as a square, plaza, green, etc. (place). There is, naturally, much overlap and combining of these two categories. Among the characteristics considered in the catalogue were: number of people and/or units associated with space; way in which it is used; sociological and psychological needs to which it responds; images or references to which it corresponds; and general form, dimension, and closure conclusions. The order in which these topics were placed was based upon the quantity of people associated with particular space, because it seems important that such identification occur at all scales of density.

In the site planning stage, decisions were made so as to make identifiable sub-communities. Some of this is shown in sub-community diagram (Fig. 11). This drawing shows clusters of housing from three to twenty units. Often times a unit will be part of a sub-cluster as well as a larger group. Frequently, these clusters include some specific piece of hierarchical public framework acting as a focus. In the hierarchical diagram (Fig. 12), such focii are indicated, commonly occurring more than once within a cluster, or conversely
outside any specific group. The labeling on this diagram uses the letters LH (linear hierarchy) and PH (place hierarchy) plus a number which corresponds to numbers in the catalogue. This notation system, which pushes to illustrate the application of the hierarchy system to the scheme, might help to understand many design decisions.

Site and program selection centered around finding a situation that would best facilitate the public framework idea in a design. The program was based on one developed by T.A.C. (The Architect's Collaborative) for a Quaker community that it is designing. This has been combined with a site that offers sufficient variety in form and scale to accommodate the density deemed necessary to "accomplish" necessary formal and social results. The owner of the site additionally has added a program of a similar philosophical nature. These two combined and altered make up the present program.

Once basic site plan was laid out, five areas were chosen as prototype situations as well as being exemplary of a particular category found in hierarchy catalogue. At this point, several diagram alternatives were generated of each of these five areas (Figs. 3, 4, 19, 22, 25), and one was selected from each as a final scheme. This one was worked into physical form (Figs. 15, 16, 21, 4, 7).

It was the original intention to then work some of the other diagrams for the same five locations, into physical form. However, instead
development of entire site plan into physical form was pursued. In this case, for any given area no alternate diagrams were produced, in fact, some areas were only links to nodal points set in the first five sections.

In addition to illustrating attempted use of hierarchy catalogue in design process, an effort was made to produce an identifiable pedestrian network which might not always coincide with vehicular uses (Figs. 7 & 8). Finally, an attitude adopted towards this project was one of integration of uses as well as segments allotted more strictly to commercial, residential, etc. activities alone (Fig. 10).

CONCLUSION

Upon looking at the scheme in its present state it would appear that the public framework is, in fact, overly rich and designed. It is important, however, to remember that the Quaker program stresses a strong sense of community and places for communal activities. Furthermore, there is an optimistic mix of "communal living buildings" and individual units. Once again, we must look to a program which stresses the integration of elderly into the community and pushes for their non-isolation. It is true that the choice of a Quaker community as an example might not be prototypical for the U.S., but it seems that much of Europe's rural settlements have a coherent recognizable framework with the street as a place "to be", for social interaction and identity. Conversely, in
suburban settlements in the U.S., the street is something to go through in order to arrive at a more private activity area.

Finally, in many of the references used in the catalogue, some strong social order is prevalent, such as the church, during the creation and use of such communities which probably contributes significantly to the use patterns. Cottage City, Martha's Vineyard, Mass., also, was created and based on a strong social order of a religious sect. Much of that has now been removed, however, and the people seem to find the physical form an enabler, no, in fact, an encourager of social integration and individual identification with the community. It is this that is seen as a positive attribute to a community design and one which should be aspired towards.
<table>
<thead>
<tr>
<th>Title Name</th>
<th>Public Category</th>
<th>Number of People</th>
<th>Uses and Sociological Justification</th>
<th>Relation in Public Chain</th>
<th>Image/Reference</th>
<th>Form Plan Section</th>
<th>Scale of Surrounding Buildings</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear Hierarchies</td>
<td>Semi-private</td>
<td>2-5 unit</td>
<td>-Access</td>
<td>-Paris/Italian tight alleys</td>
<td>-Very directional</td>
<td>-Two sided closure</td>
<td>-Very tight</td>
<td>4 or 5 feet</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15-20 people</td>
<td>-Light well</td>
<td>-Short cut passages</td>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>-Limited Use</td>
<td>-Pass through English garden community developments.</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>-Usually has control point</td>
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<td></td>
<td></td>
<td></td>
<td>-Usually defensible territory</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Semi-private</td>
<td>15-20 units</td>
<td>-Pedestrian distribution</td>
<td>-Stepped Italian hillside pedestrian paths</td>
<td>-Very directional</td>
<td>-Two sided closure</td>
<td>-Double open ended</td>
<td>-8 to 14 feet depending whether for vehicles.</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Sidewalk around Harvard Square</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>-Shaver Lane, Cambridge, MA.</td>
<td></td>
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<tr>
<td></td>
<td>Semi-Public</td>
<td>± 50 units</td>
<td>-Can serve as use place not intended for</td>
<td>-Italian and South American Streets</td>
<td>-Still very directional</td>
<td>-Largely two sided closure</td>
<td>-Double open-ended</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>-Social organizer</td>
<td>-Japanese village</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>-Pedestrian access</td>
<td>-Larger alleys</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semi-Public</td>
<td>Sub-Community</td>
<td>-Serve as sub-community focus</td>
<td>-Streets that often run parallel to Main Street</td>
<td>-Directional/relates to car</td>
<td>-Closure, however, less noticeable</td>
<td>-Larger dimension</td>
<td>-30+ feet</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Link to sub-community use place(s)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>-Vehicular/pedestrian</td>
<td></td>
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</table>
## PARTIAL HIERARCHY OF SPACE CATALOGUE

<table>
<thead>
<tr>
<th>Time Name</th>
<th>Public/ Private Category</th>
<th>Number of People</th>
<th>Uses and Sociological Justification</th>
<th>Relation in Public/Private Chain</th>
<th>Form/Section</th>
<th>Closure Scale of Surrounding Buildings</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Public</td>
<td>Larger community</td>
<td>-Serves often as alternative to town square&lt;br&gt;-Vehicle scale, however, often used by vehicles in pedestrian fashion (cruising)</td>
<td>Relates to: Semi-Public&lt;br&gt;-Public</td>
<td>-Directionality less noticeable&lt;br&gt;-Sometimes bends around corner</td>
<td>-Larger dimension 500 feet</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Place Hierarchy</td>
<td>Semi-Private</td>
<td>2-5 units</td>
<td>-Communal front yard&lt;br&gt;-Entrance cluster&lt;br&gt;-Highly developed&lt;br&gt;-Occasional cars&lt;br&gt;&quot;Built out door living room&quot;&lt;br&gt;Smallest possible cluster above private unit</td>
<td>Relates to: Semi-Public</td>
<td>-Usually slightly directional&lt;br&gt;-Usually single level</td>
<td>-Fairly small 20'-40'</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>2-12 people</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>2</td>
<td>Semi-Private Public</td>
<td>±20 units</td>
<td>-Large communal entrances&lt;br&gt;-Daily communal uses: laundry, mail, trash, parks, gardens</td>
<td>Relates to: Public and Semi-public</td>
<td>-Spanish hacienda court&lt;br&gt;-Sunnyside Gardens, N.Y.&lt;br&gt;-Forest close, Forest Hills, N.Y.&lt;br&gt;-Shaver Lane, Cambridge, MA</td>
<td>-Usually open only on 1 or 2 sides</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>25-60 people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Semi-Public Public</td>
<td>±50 units</td>
<td>-Serve as focus and use place for sub-community&lt;br&gt;-Give sense of sub-community</td>
<td>Relates to: Public and Semi-public</td>
<td>-Complexes of buildings&lt;br&gt;-Housing projects&lt;br&gt;Built sub-divisions of cities</td>
<td>-Natural shapes of larger landscape (i.e., in the valley)&lt;br&gt;-Identifiable piece of landscape&lt;br&gt;-Identifiable large scale urban piece</td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td></td>
<td>60-125 people</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Public</td>
<td>±100 units</td>
<td>-Major community use&lt;br&gt;-School, etc.&lt;br&gt;-Larger &quot;open air&quot; market&lt;br&gt;Larger Webster uses&lt;br&gt;Not actual major town center&lt;br&gt;but serves as &quot;community center&quot;</td>
<td>Relates to: Public and Semi-public</td>
<td>-Medieval town square&lt;br&gt;-Arcade&lt;br&gt;-Shopping center</td>
<td>-Can have closure on several sides but varies</td>
<td>Large</td>
</tr>
<tr>
<td></td>
<td></td>
<td>120-275 people</td>
<td></td>
<td></td>
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</table>

(120-275 people)

(140-275 people)

(160-275 people)
<table>
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<tr>
<th>Place Hierarchies (5)</th>
<th>Public</th>
<th>+250 people</th>
<th>Uses and Sociological Justification</th>
<th>Relation in Public Chain</th>
<th>Image/Reference</th>
<th>Form Plan</th>
<th>Scale of Surrounding Buildings</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Public</td>
<td></td>
<td>-Major whole community focus</td>
<td>Related to:</td>
<td>-Village green</td>
<td></td>
<td>-Identifiable large scale</td>
<td>-Large</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Minor interaction point</td>
<td>Public</td>
<td>-Squares in Somerville</td>
<td>Usually on level site</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-Related with &quot;outside world&quot;</td>
<td></td>
<td>-Shopping plaza's and malls</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-Center pavilion in Cottage City</td>
<td></td>
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</tbody>
</table>
SITE MAP
OF
GAY LAND,
NORTHBORO, MASS.
SITE SECTIONS
ALTERNATE DIAGRAMS

1. SAME DIAGRAM AS FINAL DIAGRAM
2. NODE AREA ON SOUTH-FACING SIDE
3. BUILDINGS EDITED TO GIVE NODED VIEW

WORKING ELEMENTS

1. ENTRIES - SINGLE-FLOOR HOUSES
2. PARKING
3. VIEW - NATURAL ENVIROMENT
4. CONTROL

FINAL DIAGRAM

1. STREET FUNCTION CHANGE AS ACTIVITY NODE
2. STILL KEEPS LINEAR DIRECTION
3. INTERLOCKING OVERLAP OF THICKENING IN CORE

1. DEAD-END STREET - SOCIAL ORGANIZER
2. BREAK DOWN INTO NODEAL AREAS
3. USE ENTRY POSITIONS & PARKING TO MAKE NODEAL FRINGE AREAS
4. MAKE SOUTH-FACING EDGE ACTIVE
5. ADD TO CROSS STREET
6. LOOK-OUT NODES AS BIGGER ORGANIZERS
ALTERNATE DIAGRAMS

1. TWO NODAL AREAS: RETAIL/INDUSTRIAL, RESIDENTIAL ENTRY
2. TWO PARKING AREAS: DIFFERENTIATE BETWEEN PRIVATE PUBLIC PARKING.
3. SECTIONAL CHANGE, RAISING NODES ABOVE PATH.
4. UPGRADE IN SECTION.
5. GLASS ENCLOSED PUBLIC SPACE.

SECTION A-A

WORKING ELEMENTS

1. PARKING
2. ENTRANCE - MULTILEVEL RAMP
3. LAUNDRY/HEALTH CARE
4. WATERFALL
5. NATURE ENVIRONMENT/CONTAIN

FINAL DIAGRAM

1. LINEAR STACKING OF CASES
2. MIX OF PUBLIC & PRIVATE USE - COMMERCIAL/RESIDENTIAL/LIGHT INDUSTRY
3. RANGE OF INSIDE/OUTSIDE - UNDERSIZED COVERED SPACE FOR WORKING & ENTRIES
4. MORE PRIVATE AREAS RAISED ABOVE
5. PATH ACROSS AS CONNECTOR
6. RESIDENTIAL PRIVATE AREAS ON SOUTH SIDE.
ALTERNATE DIAGRAMS

1. SIMILAR TO FINAL DIAGRAM.
2. PARKING CONGESTED.

WORKING ELEMENTS
1. PARKING GARAGES
2. PEDISTRIAN PATH
3. WOODED EDGE
4. STREET
5. ROW HOUSE ENTRIES

FINAL DIAGRAM
1. MAKE BUL A ZONE SEPARATION
   OF PEDISTRIAN & VEHICULAR ACCESS
2. PARKING RELATED DIRECTLY TO
   BUILDINGS
3. BREAKDOWN INTO SMALLER
   NUMBERS OF UNITS
4. CHOOSE POINTS = NODE POINTS
5. USE GARAGES AS BUFFER
6. BUILDINGS NATURAL ENVIROMNT
   THROUGH CONTINUOUSLY.
ALTERNATE DIAGRAMS

1. Cluster parts into courtyard podium
2. Entry / parking: kept out
3. Some activity nodes kept off pedestrian path
4. Some activity nodes move semi-public

WORKING ELEMENTS

1. Parking
2. Entry / communal plaza
3. Natural landscape elements
4. Rock edges
5. Squares
6. Laundry / commercial

FINAL DIAGRAM

1. Active pedestrian place
2. Many activity nodes: entry, eating, parking, laundry, shuffleboard
3. Activity / pedestrian area raised / separated from vehicular paths
4. Allows pedestrian activity of square to bleed into communal podium, nodal areas.
**ALTERNATE DIAGRAMS**

1. Same major node
2. Multi-entry to communal body
3. No multi-level entries

**WORKING ELEMENTS**

1. Packing
2. Entries / multi-level, terminal
3. Entry areas
4. Natural environment / context

**FINAL DIAGRAM**

1. Italian hillside / non-vehicular image
2. Row housing on south-facing side
3. Entries - multi-level to row housing - single to communal housing
4. Nodes at ends: entry paths act as connectors
5. Nodes are breaking / communal body entry & treat area.
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