BARREN URBANITY:
TRANSITION AND SUPERIMPOSITION

by
Polly Mansfield McKiernan
RIBA Part I, The Architectural Association
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B.A. in Architecture, Iowa State University
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Polly Mansfield McKiernan
Department of Architecture, 8 May 1992

Certified by
John Myer
Professor of Architecture and Thesis Advisor

Accepted by
John Myer
Chairman, Departmental Committee on Graduate Students
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FOR

The Residents of LSM
and the
City of Lublin
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>5</td>
</tr>
<tr>
<td>Orientation to Lublin and Poland</td>
<td>6</td>
</tr>
<tr>
<td>Lublin, the Bystrzyca River and LSM</td>
<td>14</td>
</tr>
<tr>
<td>Inspirations</td>
<td>22</td>
</tr>
<tr>
<td>Site Photographs</td>
<td>28</td>
</tr>
<tr>
<td>The Site</td>
<td>32</td>
</tr>
<tr>
<td>Thoughts</td>
<td>34</td>
</tr>
<tr>
<td>The Studies</td>
<td>56</td>
</tr>
<tr>
<td>Summary</td>
<td>131</td>
</tr>
<tr>
<td>Endnotes</td>
<td>132</td>
</tr>
<tr>
<td>Sources</td>
<td>133</td>
</tr>
</tbody>
</table>
ABSTRACT

Last winter I visited a housing cooperative named ‘LSM’ in Lublin, Poland. In a town of 350,000, 50,000 people lived in the estate located 1 kilometer southwest from the medieval and nineteenth century city center. What I saw was a cold barren landscape dotted with rectilinear concrete slab buildings barricading a livable environment.

In contrast to my impression, I held a respect for the place. I saw potential in using the existing apartment buildings and saw a beauty in the abused natural landscape. I felt that the existing environment could become more humane and livable. This would not be by means of salvaging, repairing or decorating, but rather reinterpreting what was there and interacting with the new and the landscape.

Within the thesis I have chosen to portray chronologically the design process of a new city center and its integration into the estate. I do not consider the thesis to conclude into a design solution but rather as a pictorial description of my thought methodology cumulating in some ideas that I believe could be approached for urban environments of this sort.

Thesis Supervisor: John Myer
Title: Professor of Architecture
Steep sided river valleys
Karst or limestone relief
Rolling relief
Structural escarpments
Older glacial drift relief
OLD CITY (STARE MIASTO)
LUBLIN IN ITS EXISTING CONTEXT
HOUSING ESTATES WITHIN LSM
LUBLIN, THE BYSTRZYCA RIVER AND LSM

Lublin's location within Poland is set in the midst of rolling farmland where two small tributaries Czechowka and Czerniejowka discharge into the Bystrzyca. On one side of the Bystrzyca the terrain is flat and composed of bedrock. On the other side of the bank there are valleys and gorges resulting from glaciers that form steep hills and long meandering valleys.

In medieval times, Lublin was a walled city set strategically at the top of a small escarpment. In 1960, construction began on the LSM housing cooperative. It was one of the seven estates built that formed a 'ring' around the city.

LSM is located very close to the center. By transit it is within 15 minutes. In addition I see potential in linking the Old City directly to the LSM valley and the center of LSM by a path following the Bystrzyca River. This walk could be paved to allow for bike paths, strolling with baby carriages or a half hour respite from downtown traffic. What is needed is a literal and substantial connection.
1959, BUILDING SITE OF LSM

OLD CITY WITH FARM LAND BEYOND

OLD CITY WITH POST-WAR CONTEXT BEYOND
DIAGRAM ILLUSTRATING LINK OF OLD CITY (O) TO LSM (-) 
BY THE BYSTRZYCA RIVER AND THE VALLEYS
BYSTRZYCA RIVER  
ITS CONNECTION BETWEEN THE OLD CITY AND LSM
KEY MAP ILLUSTRATING A WALK FROM THE CENTRAL SHOPPING STREET IN LUBLIN, THROUGH THE OLD CITY, ALONG THE BYSTRZYCA RIVER, AND INTO THE VALLEY WITHIN THE LSM HOUSING COOPERATIVE

CRAKOWSKIE PRZEDMISCIE

PL. LITEWSKI
OLD CITY (STARE MIasto)

MARIANA BUCZKA

BYSTRZYCA RIVER
INFRASTRUCTURE CROSSING BYSTRZYCA RIVER

BYSTRZYCA RIVER WITH VIEW OF LSM IN THE DISTANCE
SWIMMING HOLE IN BYSTRZYCA RIVER AND ADJACENT TO THE VALLEY LEADING INTO LSM

THE VALLEY OF LSM
INSPIRATIONS

After World War II Polish law allowed farmers to retain their land ownership, resulting in the creation of a striped, cultivated landscape. Before harvest, the ground is divided into long, rectilinear slices of color and heights. In some areas hay is stacked into mounds that dot the plains. In between some of the strips are narrow forests. The color, geometry and three dimensionality form an intimacy that can only be captured in Poland. Throughout the project I was inspired by these observations. Hopefully, in subtle form I made transformations of this into built form that would create an easiness with the place -- a renewed link for the Polish people to their land.
In Berlin I visited Bruno Taut's housing project built in 1920 named Onkel Tom's Hutte. Despite the contrast in heights with LSM, Onkel Tom's Hutte conveyed some of the feelings I have about urban neighborhoods such as linearity, curves, scale, form and most significantly nature and color.

The style of the building forms are representative of the modern movement. In Taut's book, *Modern Architecture,* he spoke of the new movement and its relation to nature as that which 'repeatedly proves that its soundest interpretations is the one which best harmonizes with the landscape in a natural way.' Taut's project is the most successful work I have seen from the modern movement. What is best displayed in the project is the use of color and its relationship to the environment. Taut wrote about color stating that it 'must be included in our external calculations for intensifying or lessening the distance of the buildings from one another, according to the position of the sun and nature of the street.'.

Views of this estate follow on the next two pages.
ONKEL TOM'S HUTTE SITE PLAN
BY BRUNO TAUT, 1926-31

RESIDENTIAL STREET AT ONKEL TOM'S HUTTE, 1926

26
RESIDENTIAL STREET WITH COLORED BUILDINGS AND BIRCHES, 1992

BACK YARDS OF THE TOWNHOUSES, 1992
SITE PHOTOGRAPHS

PANORAMIC VIEW LOOKING WEST WITH 180M LONG HOUSING BLOCK ON LEFT, INSURANCE BUILDING IN CENTER, AND CHURCH UNDER CONSTRUCTION, RIGHT. THE SITE CONCENTRATED ON IS BETWEEN THE HOUSING BLOCK AND INSURANCE BUILDING.
ZANA STREET

AERIAL VIEW FROM INSURANCE BUILDING OF THE SITE LOOKING SOUTH
STANDING ACROSS VALLEY AND VIEWING SITE

TYPICAL ENTRY DOOR OF HOUSING BLOCKS
THE SITE

LSM presently houses 50,000 people.
During the 1980's a design was made by the city and the cooperative government to plan a center for the cooperative neighborhood. Last year MIT was invited by both regional and city architects to plan for the LSM cooperative neighborhood and its center.

From the site model one can identify the site as all the central vacant area and the valleys that meet it.
THOUGHTS

GREENERY IN THE CITY

Setting myself in the scene, I referred myself to Walter Gropius. Sigfried Giedion wrote about Gropius and about the ideas he held. In the 1950's Gropius campaigned about the need for greenery in the cities. He felt that 'the loosening but not the breaking up of the city should be the aim. The two opposites 'town' and 'country' can be brought closer to each other through our use of technical resources which we have at our disposal, and through the most extensive landscaping of all the available ground, even the rooftops, so that the encounter with nature will become a daily and not merely a Sunday experience.'

The rationale behind the development of the slab apartment block's purpose was to create free open space for the city. There would be a minimum of distances and all apartments would have air and sunlight. The children would be able to play in the large park land. The roofs would be used for kindergartens and communal activities and clubrooms.

There were disadvantages to the multi-story block and that primarily in terms of the lack of a direct relationship between the land and the apartment. This remains a severe problem today.

Here is where I see the potential within the LSM housing cooperative. Gropius' Interbau project in Berlin exemplified his thoughts in built form. Today, the buildings are exactly as he had said: tall apartment slabs in a park-like setting, the latter being by far the success of this project. The buildings are mundane.
The intrigue of Gropius' Interbau project indicates the potential the landscape has in forming an environment for buildings at a 'touchable' scale. I am not admiring the buildings at all, but rather in this circumstance I do admire the fluidity of stepping out of the building and into a park. It is very different from stepping out of a building and onto concrete and then onto pavement and into a parking lot.

One strong case against densifying too much within the existing buildings at LSM would be the result one would have by taking away the sunlight which seems to be about the only positive attribute these buildings have as a result of the influence of the modern movement.

NATURAL PLACE

During the design process I tried to understand place. I looked at both Kevin Lynch and Christain Norberg-Schulz. In working at such a large scale, I questioned how I could create the intimacies that tiny places form within this large context. I felt that the greater impacted the lesser and vise versa... I began to try and delineate this. Examples that came to mind were the contrasts between the midwestern plains and the dense fir forests of Sweden.

Norberg-Schulz had some interesting thoughts on landscape. He stated in his book, *Genius Loci: Towards A Phenomenology in Architecture* that 'variations in the surface relief determine the spatial properties of the landscape and to some extent its character,' and that 'characters may be accentuated or contradicted by texture, colour and vegetation.' I immediately thought of the patterns within the Polish farmland. These images were very strong in how I began to think of place at LSM.
The LSM estate always appeared to me to be a series of buildings set in a vastness of space. What intrigued was the lack of sensitivity to the vastness. Instead of using building forms that appreciated the openness, the buildings took the alternative position of just being placed almost randomly. There was a slight indication of following a directional field, i.e. the contours, but there was no integration with the land forms.

From this I was challenged. For instance, I felt that places and alternative spaces could be created through small forests, earth-moving and a careful consideration of the placement of allotment gardens for instance. Presently at LSM, the allotment gardens portray a fantastic outdoor community. The dilemma is that they have invaded a great portion of the open space in the valley. The valley is almost a privatized outdoor environment and I feel that with careful consideration, a park for strolling and recreation and a series of allotment gardens could coexist.
SITE PLAN

The first pass at the site. There is a connection from the valley through the center indicating a direction through LSM back toward the Old City.

1959, LSM SITE PRIOR TO CONSTRUCTION
FIRST PASS AT THE PROJECT: A LAKE WITH A FOREST IN THE VALLEY WHICH WINDS INTO A LINEAR BUILDING SET IN THE FOREST. THE LINEAR BUILDING HOUSES GREENHOUSES, SHOPS, RESTAURANTS, ELDERLY HOUSING, FLATS, OFFICES AND WORKSHOPS.
space of it to a grand scale

Diagram illustrating present state of valleys and buildings
COMPARISON DIAGRAM ILLUSTRATING THROUGH LANDSCAPING HOW ENCLOSURE CAN CHANGE THE PERCEPTION OF ENCLOSED SPACE
ALLOTMENT GARDENS: GLADES IN THE FOREST SIMILAR TO THE POLISH FARM LAND
LANDSCAPE CONSIDERATIONS:

1. Fruit trees along paths (lower scale, fragrance)


3. Mix of deciduous and coniferous trees. Small forests with glades for private outdoor areas.

4. Flowering tree lined streets
PLAN OF EXISTING BUILDINGS WITHIN LSM ILLUSTRATING FROM LANDSCAPE CONSIDERATIONS ABOVE HOW THEY WOULD BE APPLIED
FACADE CONSIDERATIONS
NORTH FACES

1 Residential: Light bark (preferably white birch) against 'cool' painted stucco; glimpses of southern warmth through roof greenhouses

2 Public: Dark firs against white stucco; Passageways with glimpses of south beyond to draw through public activity on southern side

3 Public: Dark firs with greenhouses appearing at intervals
BUILDING CONSIDERATIONS

1. Existing buildings:
   Incisions for artist studios, music studios, libraries; white facades; small colored towers placed within trees

2. Main square vision
These studies were incorporated into a larger scheme with other students. Retaining the idea of connecting the greater whole back to the city, five decentralized centers formed. Most of the small ‘centers’ formed at road intersections that lead to other parts of Lublin. The concept relied on the idea that built form would spread along the road edges.
SITE MODEL ILLUSTRATING LANDSCAPE APPLICATIONS AND A FURTHER LOOK AT THE LINEAR, CENTRAL BUILDING
Connecting directly in section to the valley, the market building provided a linear link to the neighborhoods within LSM and to the allotment gardens. The building itself would contain greenhouse planes and roof activities, conceptually carrying the landscape up and over.
This project was taken to Poland and discussed in Lublin. The scheme of decentralized centers was well received and seemed a possibility. Concerns for the landscape as well as a cultivated and directed landscape were also deemed important and respected by the critics.

However, there was still a concern for a dense center that could support a neighborhood of 50,000 residents and contribute to the larger population (35,000) of the city.

A major implementation I had proposed was to change the vastness of Zana Street. I bent the road to partially slow the traffic down, but also to make the street experiential in relation to the landscape.

After revisiting the site and observing Zana Street's importance to the city, I changed my direction and felt that Zana needed to be respected as an important and central street.

At this point I stepped back from the scheme and took a fresh look through a new series of studies. It was crucial to retain a landscape that could be used in both private and public ways.

What has affected me most at the LSM cooperative was the lack of privacy and intimacy within the exterior space of the community. When walking through the valley, one felt like thousands of eyes were watching one's every move. I tried to sketch there but felt uncomfortably exposed.

Therefore my primary concerns were to further develop the exterior spaces within the landscape and intertwine this with a dense center. The
following are the studies I went through.
Here the attempt was made to connect the two valleys to the canal and to look at some grander patterns the existing buildings formed in combination with building forms from the old scheme. Directions toward the Old City seemed to dissipate weakening their importance which was something I intended to retain.
Regarding the direction to the Old City, terracing of buildings began to appear. Their form was an attempt to regard their context abstractly. U-shaped pockets formed at the edges to incorporate the valley and capture it. Allotment gardens lined the edges. Trees encroached on the west and pushed the directionality to the Old City. The linearity of the buildings in the central area continued the failure that was visible in the existing environment.
FORMING PLACES THROUGH A LINEARITY
Taking away some of the previous linear buildings, space became much too open. I tried to zoom into the buildings on the east side and gain a more intimate look. I attempted to see what spaces would be created within the bold lines.
REDIRECTING LANDSCAPE THROUGH BUILDING FORM
CONTINUING WITH EXISTING BUILDING PATTERN WITH A STREET GRID OVERLAY

LINEAR BUILDING LINING THE VALLEY EDGE
ALLOTMENT GARDENS AND SMALL TOWERS FORMING VALLEY EDGE
The sketch below became the most important preliminary drawing. The building forms captured the valleys, created a central place and allowed the forests and glades to carry on toward the city center. As I progressed, I constantly reflected on this scheme.
From the studies, I moved into a larger scale and continued the process using more detail to form spaces. Here the buildings line the contours and push in two directions. There are very few moments of stopping and resting.
1 PUBLIC SQUARE  2 MARKET BUILDING  3 LINEAR SHOPPING MARKET
4 HOUSING AND OFFICES
This drawing was a development from the previous one. Realizing that there were no enclosed places, I tried to make a square that slipped under a linear greenhouse/market building, located close to the street, and then cascaded down into allotment gardens. The building forms also began to break down and move into pieces that might form places.
TERRACED PUBLIC GREEN SPACE APPROACHING MARKET BUILDING
Since the drawings were not creating any spaces I looked back at the abstract sketch. I exaggerated the building expression through capturing and hooking the contours. These buildings would evolve through terracing of the ground and move into built form. The curve's convexity directed a movement to a central area.
Working with the idea of using the convexities of the curve to form a central area, I began looking at the formation of a main square adjacent to Zana Street. Using the tree groves and built form a central area began to form. I was still attempting to work with the direction to the Old City, instigate activity at the southern faces of the buildings, and work with Zana Street. I imagined the convex buildings to grow out of the contours and have a solid, light appearance. An edge, light in structure, formed along Zana Street.
1. School and Courtyard
2. Greenhouse, Market, Shops, Housing
3. Public Square with View Cut Through Building Overlooking Valley
4. Civic Buildings
5. Housing and Offices
Trying to work with the directionality to the Old City, a linearity in the landscape was created to form gardens and elevation changes in the ground. I was inspired by the Polish countryside and wanted to retain an agricultural link that surrounds Lublin.
1 SCHOOL AND COURTYARD 2 GREENHOUSE, MARKET, SHOPS, HOUSING 3 PUBLIC SPACE 4 BUS STATION, KIOSKS, SHOPS 5 CIVIC BUILDINGS 6 HOUSING, OFFICES 7 ALLOTMENT GARDENS
From the previous drawing, I once again inserted the forest and tried to form the central area.
A struggle in the concept was beginning to form. At a larger scale I began to look at the building at the face of the valley. Activities at the ground level were looked into with more detail. Shops and cafes were preferred where they faced the south and the valley and received the light. Increasingly, this began to negate the main square.
In section, possibly the square would become more strongly related to the valley.
A section was cut across the valley to view the building heights, the stables, and the terracing of the ground. A high amount of activity was beginning to concentrate away from the main square. I was becoming less and less convinced and decided to try densifying the main square with built form as opposed to forming an enclosure by way of framed views, landscape and forests.
In these drawings I attached denser forms to the linear buildings. This idea may be a recollection of some of the early studies as in view 3.
Dissillusionment began to form with the scheme. The main square wasn't working with Zana Street and the directionality toward the Old City. Stepping back again, a new attempt was made to dissect Zana and set a market in the middle. The split roads would follow the convexities of the buildings forming a space in the middle for the market, parking and activity.
An attempt was made to integrate the landscape and to subtly suggest the direction to the Old City.
At a larger scale, parking and selling slots for the market were tested. Parking would line Zana. At this point there was no intersection and connection amongst the greater LSM neighborhoods. This scheme was abandoned because it became too much of an island.
During the progression of work, at this point I revisited the site in Lublin. In my previous schemes, I felt there had been a great lack of connecting and ‘touching’ the seven neighborhoods. I walked along Zana and felt that an intimacy could be created. When I got back to Boston I decided to start fresh again. I looked at the entire estate and made a small scale study model. Using building heights helped to look at the larger scale.
ZANA STREET IS BENT AND ENCLOSED BY LINEAR BUILDINGS LINING THE STREET
Finally, through the model, I came to a point where the building forms engaged the landscape and, the central area connected to the surrounding neighborhoods. Attempts to integrate the existing buildings began to work and let the site read as a whole.
Density of buildings closer to the central area with landscape carrying from valley and through the site.
CLOSER VIEW OF THE CENTRAL SPACE MEETING THE VALLEY
Keeping in mind the main square and market building, the intersection of plantings were studied in their relationship to the directionality to the Old City and the possibilities of intimacy along the path.
Again looking at the main square and introducing a linear building to follow the ‘path’ to the Old City.
This study intended to look at uses and to view the public pedestrian areas (gridded areas). Located around the main square would be a food store, shops, cafes, a hotel, a greenhouse and a market building placed in the center. Workshops and offices would be located on the upper floors. As one moved down the narrower pedestrian ways, above the offices and workshops there would be apartments and greenhouses on the roofs.
Changes were made to the main square. A bus station would be located at the center and the dimensions tightened.
PERSPECTIVES

1 Ul. Zana

2 Looking west down pedestrian path from main square toward hotel.
PERSPECTIVES

1  Looking at market building on left, shops and offices above on right toward the direction of Zana. A restaurant and greenhouse bridge over passageway to Zana.

2  Turning 180 degrees and looking toward valley with greenhouse building on right, outdoor cafe with observatory beyond, stairs leading to valley, a cantilevered birch forest, pool and recreation hall.
During the programming process, the landscape sketches I had done in the past seemed to diminish. In this sketch, the places were formed by the weight and densities of the forest. Pockets caught and formed intimacies.
Using the preceding sketch I went further and overlaid a transparency on the plan to form a new sketch which caught essences from each drawing. After some attempts, this drawing became the clearest.
1 HOUSING, SHOPS AT GROUND LEVEL
2 TOWNHOUSES
3 DAYCARE, MUSEUM
4 SHOPS, HOUSING, GREENHOUSES
5 CIVIC BUILDINGS
6 PAVEMENT AT ZANA HAS NO CURBS - PEDESTRIAN CROSSING
7 TOWNHOUSES AND DUPLEXES
8 OFFICES, SHOPS, WORKSHOPS
Zana still appeared problematic and severing especially with this sketch. When formulating street dimensions, its breadth cut the link to the Old City and Zana’s building lined street seemed to sever this further.
Splicing two drawings together with a finely dimensioned Zana Street made it clear that there was a directional problem again.
Going back to the overlay drawing, this sketch appeared to show strength in the pedestrian path.
PERSPECTIVES

1 Narrow path between fir trees with sculpture gallery in the distance.

2 Within deciduous and coniferous trees, a small plaza (sculpture garden) with sculpture gallery and office tower in the distance.
PERSPECTIVES

3  Approaching glass office tower and path begins to widen again.

4  Alongside glass office building with path tightened again and lined with coniferous trees.
PERSPECTIVES

5  Small plaza approaching Zana and bus stop on left, outdoor cafe and shops on right.

6  At Zana, looking across island toward archway.

7  Under archway approaching market square. The ceiling is glass with greenhouse above.
PERSPECTIVES

8 In market square with temporary market structure on right, shops, restaurants and offices above on left. The cantilevered birch forest is beyond.

9 The stair passage leading to the valley and estates beyond.
SUMMARY

Reflecting back to what I chose to achieve, I realize that I set myself up for significant challenges. I strove to knit together fractured pieces of the existing built environment through a new central link; create intimate spaces, containments and densities; engage an existing future landscape; and tie LSM to the Old City in central Lublin. In short, I wanted the outdoors to become as important to the LSM cooperative residents' lives as their own apartments.

As I designed I was confronted with the two directionalities, one being the subliminal link by way of the landscape back to the Old City and the other being the dominance of Zana. Addressing the conflict between these two was my main struggle during the thesis. I did not want to deny my seminal sketch.

There were also my first impressions that through the selection of trees for color and fragrance, building color and greater landscape interventions, the place could become an engaging and personable environment.

Finally, I hope that from my experience others will be challenged with the opportunities of designing in urban environments similar to LSM.
ENDNOTES


2 bid., p. 136.


SOURCES


MY UTMOST APPRECIATION

to

Jack Myer
Erika Kiss
Angela Barreda
Vishaan Chakrabarti
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Rob Stupay
Jan Wampler
Earl Mark
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and

Linda Filardi
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and

Jane