"I don't know that I can," Thorndyke answered calmly; "but I see you are taking the same view as the police, who persist in regarding a finger-print as a kind of magical touchstone, a final proof, beyond which inquiry need not go. Now, this is an entire mistake. A finger-print is merely a fact — a very important and significant one, I admit — but still a fact, which, like any other fact, requires to be weighed and measured with reference to its evidential value.

... R. AUSTIN FREEMAN
The Red Thumb Mark
As I pointed out at the beginning of the last chapter, our main interest in the results solicited by Talking with Maps and Environmental A was to be sure that Group L would be ready for mapping when they reached London. Dire predictions had been made by many aware of the extent of the project, predictions of serious failure resulting from the late date of our mailing and the relative enormity of the effort demanded from the kids. We were at times beset with qualms, but nothing could be lost by trying and much potentially gained. You are now familiar with the setup of the schedules so a simple table should suffice to indicate the degree of our success.

**TABLE 4.0**

**MAPPING RETURNS FROM PREDEPARTURE MATERIALS**

(NUMBER OF KIDS - 31)

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Return</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hometown Map #1 (Free)</td>
<td>20</td>
<td>65%</td>
</tr>
<tr>
<td>Questionnaire on Free Map</td>
<td>18</td>
<td>58%</td>
</tr>
<tr>
<td>Hometown Map #2 (Point-Line)</td>
<td>20</td>
<td>65%</td>
</tr>
<tr>
<td>Overlay for Hometown Map #2</td>
<td>20</td>
<td>65%</td>
</tr>
<tr>
<td>Hometown Map #3 (Point-Line)</td>
<td>15</td>
<td>48%</td>
</tr>
<tr>
<td>Overlays for Hometown Map #3</td>
<td>15</td>
<td>48%</td>
</tr>
<tr>
<td>Point-Line-Area List</td>
<td>15</td>
<td>48%</td>
</tr>
<tr>
<td>Predictive Map of London</td>
<td>10</td>
<td>32%</td>
</tr>
<tr>
<td>Overlays for Map of London</td>
<td>10</td>
<td>32%</td>
</tr>
<tr>
<td>Ideal City (with overlays)</td>
<td>13</td>
<td>42%</td>
</tr>
</tbody>
</table>

While our success was not complete, it was substantial. For the most important aspect of the materials, learning and using the point-line-area method, nearly two-thirds of Group L responded. (The percentages and proportions are calculated on a basis of the thirty-one kids in Group L. The materials were also sent to the Travel-Counselors, but none deigned to respond. Subsequently they did take part in the project and the later percentages and proportions are calculated on a variable basis.) A group of materials sent to an unknown audience rarely attains so high a return. Obviously, the second mailing began to tax their patience, for only half of the group responded to the request for a third map of the hometown; for the Predictive Morphology of London (admittedly an esoteric task) only a third responded.

Before proceeding to examine the results in more detail, a note on the characteristics of the sample size may be in order. I have
elsewhere (Wood, 1971, 54 et passim) ranted at length about image studies performed with incredibly small samples. I argued that an image study of a city the size of Boston with a sample population of thirty scarcely deserved the term "pilot study." Note that the universe of our investigation is Group L, which itself consists of thirty-one kids, six Travel-Counselors, two social scientists, a bus driver, and at times a courier. Of these, the bus driver and the courier took no part in the project so, that at the outside, our universe is a population of thirty-nine, and frequently, as in the instance at hand, only the thirty-one kids. Thus a figure like ten, which were it being used to generalize about the United States — or Boston — would be absurdly small, must be regarded in the context of this universe of thirty-one. In this context, ten kids is not a small figure at all. Where ten is not a small figure, twenty is much larger.

II

Twenty kids filled out Talking with Maps. There is little need to discuss the nature of the free-hand maps of their home towns for in the questionnaire that immediately followed, the kids did it for me.

The first question concerned the extent of the environment covered by the map. The instructions had asked simply for a map of the city. One kid claimed to have drawn the downtown of her city, five their own neighborhood, and twelve the entire city. This last statement might ordinarily be taken with a grain or two of salt, but in this case it is a simple statement of fact. Of these twelve, no less than five live in New York City, in Brooklyn, the Queens and Far Rockaway. All five drew New York City in its corporate entirety, all five boroughs, rivers and bays, et cetera. One girl, Erica Cruz, wrote:

"I misunderstood what you wanted. You wanted a map of my city but I live in New York City, which you must admit is a large city. For the second map I drew a small section of my borough and two nearby boroughs. I tried to do it well but I am not an artist so please overlook my errors and messiness."

I include this at this point to illustrate just how alive some of the kids were to the problem of what "city" is meant to include.

The second question asked what had been used as the center of the map. Nine kids used a consensual center, often specified as the
Figure 4.0  David Abrams' first hometown map.
Figure 4.1 David Abrams' second hometown map.
Commons, Town Hall or what have you. Our five New Yorkers centered their maps on their own borough, two kids centered it on their own neighborhood, and the remaining two on their own church and school respectively. Thus the map center seems to be predominantly consensual as well. The third question simply wanted to know what portion of the paper was covered. For the most part (89%), Group L used the entire sheet, mapping the whole city around a consensual node.

The questions next turned to the issue of scale. To get them involved with this issue in some active way it was suggested that they use their thumb as a standard to evaluate scale on the map. Eighty-nine percent of the group gave us a figure, either in miles or blocks per thumb. Eight kids averaged 1.74 miles per thumb (range: .16 to 3.5 miles per thumb) while another eight averaged 5.44 blocks per thumb (range: .5 to 17 blocks per thumb). However, in response to the next question, half agreed that scale was not constant all over the map, while 28% claimed it to be at most approximate, and 22% sounded a resounding "Yes" (yes, it was constant, followed by numerous exclamation points). Regarding the reasons for this inconsistency, some of the responses echoed a dull "Because it is." Other responses were most illuminating. Six kids said "a scaled drawing was not specified in the instructions!!!!" How many of them were using this answer as a lame excuse is moot, but the criticism is trenchant nonetheless. Another called his sketch "a rough draft." Still another pointed out that the mind needed training to draw a map to scale. Five claimed that the center portion of the map was to scale, but that the edges were slighted, because the paper was too small. Only one noted that he had never drawn a map before, but as it turned out, this was more often than not the case. My favorite reason for the variation in scale came from Marina Gioconda. She pointed out that the width of the thumb varied with the amount of pressure exerted and that this would cause variation where none existed. She had reason to complain, as she had used the map in the telephone book as a crib to draw her own! (Only one other of the twenty kids relied on a published map. These two volunteered the fact.)

It is impossible in reading their responses not to think of my own oft stated objections to the technique of instructionless map drawing. That six of twenty kids should refer to the lack of instructions cannot be ignored, bolstered as it is by other responses. The fact that some felt the paper too small has to do with the fact that in drawing the center, the ultimate objective is overlooked (recall the case of Beck drawing the bridge over the Thames). Do not forget that these kids were drawing the environments they knew best. The next question has relevance at this point. I asked whether familiar areas were drawn larger than other areas. Two thirds claimed that they did exaggerate the size of familiar areas, one noting that "I am bound to draw the things I know better larger."
This sort of response simply means that it is imperative to raise into consciousness the issue of scale, unless the only information being sought is the extent of the area best known to the mapper.

Needless to say, these questions were asked with one goal in mind: to inform the group to be on the alert for these sorts of problems in the drawing of maps. That the preceding have yielded the project valuable information is an added bonus. With the exception of one question, the remaining can be summarized in a table.

TABLE 4.1

INSTRUCTIONLESS MAPPING QUESTIONNAIRE RESPONSES

(n - 18)

QUESTION: Are the symbols consistent?
   Yes: 72%  No: 22%  No Answer: 6%

QUESTION: Does the same symbol always stand for the same thing?
   Yes: 72%  No: 22%  No Answer 6%

QUESTION: Do the (real) streets cross at right, or some strange, angles?
   Right: 39%  Strange: 33%  Depends: 17%  No Answer: 11%

QUESTION: Did you draw the right angle of the intersection?
   Yes: 61%  Mostly: 6%  No: 17%  No Answer 16%

QUESTION: Do the streets go to the right places?
   Yes: 61%  Mostly: 17%  No: 6%  No Answer: 16%

QUESTION: Do the streets go in the right directions?
   Yes: 67%  Yes, some: 6%  Don't Know: 6%  No: 6%  No Answer: 15%
Figure 4.2  A detail of Marina Giaconda's first hometown map. (greatly assisted)
Figure 4.3 Marina Giaconda's second hometown map. (unassisted)
QUESTION: How many streets did you draw?

Average: 14.2  Range: 0-50

QUESTION: How many streets did you omit?

Average: 57.8  Range: 0-300
("Many": eight kids; "thousands": one)

One is overwhelmed by the sense of mapping confidence exuding from these kids. The majority always felt that they had performed the task correctly and this in the face of their self-assessment that the maps could have been better. Two felt that their maps were fairly accurate; another pair felt that their maps were "very accurate" or "as accurate as possible" (whatever that means). One of the kids who thought he could have done better added "with a course in mapping." The bulk of the kids drawing this first map thought highly of their skills, although most realized and admitted that they could have done better.

III

And so we enter the quagmire. All twenty who drew the instructionless map then drew a map using the point-line-area method. How did these sets compare? The quagmire is finding a basis of comparison. If the basis of comparison is the degree of conformality between the maps, the second set is vastly to be preferred. There is quite simply no question. With the first set of maps there is total variability. The girls drawing New York all sketched in areas, often using color to distinguish one borough from the other. Little other detail was included. (These were the kids who mapped zero streets and omitted three-hundred to thousands of them.) These maps obviously bear little relation to the highly detailed maps received from Wakefield, Massachusetts or Greenville, Pennsylvania, or Milford, Indiana.

Furthermore the extensive variation in symbolization makes interpretation difficult to impossible. Here two parallel lines stand for a street, there for a river, and elsewhere for railroad tracks. These were simple, because labeled, yet most weren't and were not simple interpretations at all. These are just two of the problems in interpreting the first set of maps. None of these exist in the second set. Fascinatingly, the New York girls dropped into the intimacy of their boroughs for this second map. On the second set there is a standard set of symbols and a standard approach to the completion of the map surface. These are comparable and easy to analyze.

But this would be a paltry gain if there were great off-setting losses. Fortunately, except for the shift in scale on the part of the
New Yorkers, there is no such loss. In what terms? There is no loss of
detail to speak of and in some cases there is a gain. In four cases there
is an increase in detail.

I turn to the issue of map size. Overall there was a decrease
in the amount of paper surface covered from the first to the second set.
The point-line-area method, in conjunction with our introductory essays,
obviously implanted a fear of drawing too large in the kids' minds. The
second set starts out at a reduced scale and continues at a reduced scale.
The same area on map one is compressed into a smaller area on map
two. There is a decided correction of scale in the outlying portions of
the maps. Roads on the periphery of map one represented by an inch,
now becomes two inches, while those in the center have decreased
somewhat in length. Making the kids aware of the problem of scale may
have introduced a tendency to over-correct the faults they themselves
isolated in the questionnaire.

To summarize these first three points we note that:
1) Amount of detail remained much the same; 2) Amount of paper surface
covered decreased in the second set; 3) Scale was consciously corrected,
perhaps over-corrected, in the second set.

I will deal with two other issues before moving on. The first
of these has to do with areal discrimination. With the exception of the
New Yorkers who dealt on their first map exclusively with areas, there
was no map in the first set on which any areal phenomena whatsoever was
distinguished. Stressing this areal aspect of the mapping task with the
use of tracing paper overlays, forced all the kids to map their home
towns into areas. Many of these were prefatory "North Side, South
Side" as suggested by our example, but others were imaginative and
insightful. This aspect of the second map set was an unqualified gain.
Secondly there is the question of general appearance. The second set of
maps was decidedly ragged in many cases. Much of this I suspect (this
was subsequently to be confirmed by the kids orally) was due to having
to map the same area twice in succession. In many cases obvious love
had been lavished on the first map. This was not the case with the
second.

I feel confident in making the following statements. They
result from the foregoing criteria richly larded with hours of contempla-
tion of the maps in question. If the first map was too good (copied?) the
second map was worse; if the first map was good, so was the second;
if the first map was not so good, the second map was better; if the first
map was terrible, the second either remained terrible or improved
drastically; if the first map was of all of New York, the second map was
Figure 4.4  Bobbi Seward's first hometown map.

Figure 4.5  Bobbi Seward's second hometown map.
Figure 4.6  Wanda Pierce's first hometown map.

Figure 4.7  Wanda Pierce's second hometown map.
Figure 4.8 Erica Cruz's first hometown map.
A Small Section
Brooklyn, New York -
3 Boroughs: Kensington (my borough)
Dumke Slope
Flatbush.

Figure 4.9 Erica Cruz's second hometown map. (assisted)
Figure 4.10 Sven Heller's first hometown map.
Figure 4.11  Sven Heller's second hometown map.
Figure 4.12 Phylis Gordon's first hometown map.

Figure 4.13B The areal overlay to Phylis Gordon's second hometown map (Not to scale of skeleton)
Figure 4.13A Phylis Gordon's second hometown map: The Skeleton.
of a single borough or even smaller part. These judgements are essentially feelings, but they are backed by all the evidence. To conclude: the use of the point-line-area method increased comparability enormously and hence the usefulness of the maps to any scientist; it underscored areal discrimination as a part of mapping; it caused scale to be considered consciously in the mapping process; it did not materially effect other aspects of the map such as amount of detail, size of area covered and so on. It was, in sum, a rousing success.

IV

Of course that was only the beginning. The second mailing followed hard on the heels of the first, and integral to this second installment were refinements of the technique. Prior to drawing any maps the students were asked to examine Environmental A. They were provided with a rationale for the use of this symbol system, and the division of the symbols into points, lines, areas and attributes. Subsequently the students were asked to list as many types of points, lines and areas as they could. They rose manfully to the task. The average number of types of points listed was 14.2 (range: 9-27), types of lines 9.4 (range: 4-14), and types of areas 5.2 (range: 3-11). This task set them up for the use of overlays in the third map of their home town.

So what happened with this third map? With one exception all classes of mappers produced their best map on this third try. The exception: if the first map and the second map were both terrible, the third map was not drawn. Again, the New Yorkers were unique: four of the five, once again, attempted to map the entire city. But this time they tried it using the point-line-area approach. The maps were a mess, but I applaud their attempt at this horrendous task. Given the city's spread over three islands and a peninsula, the task is next to impossible. Only one (Cruz) continued to map her borough.

In making this assessment of improvement from the second to the third set of maps I utilize the same criteria as from the first to the second. The networks (the points and lines) show little actual change. They are, if anything, slightly better connected and, in every case, the number of points and lines has increased. The scale corrections inherent in the second set were incorporated into the third at an increased size. But when we turn to the overlays a big difference becomes apparent. The average number of tracing paper overlays per kid was 2.7 (range 1-4). In many cases a different sheet was used for each type of symbol. Table 4.3 shows the numbers of symbols used in each class.
TABLE 4.2

SYMBOL USAGE ON THE THIRD HOME TOWN MAP

(n - 20)

<table>
<thead>
<tr>
<th>Points: Average</th>
<th>27.6</th>
<th>Range: 11-61</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lines: Average</td>
<td>8.4</td>
<td>Range: 1-12</td>
</tr>
<tr>
<td>Areas: Average</td>
<td>9.17</td>
<td>Range: 2-24</td>
</tr>
<tr>
<td>Attributes: Average</td>
<td>17.1</td>
<td>Range: 8-83</td>
</tr>
</tbody>
</table>

The figures are for total number of symbols used, not types of symbols. Thus the average number of point symbols does not mean that 27.6 different symbols were used. These are amazing figures. If the averages are astounding, the upper limits of the ranges are overwhelming, particularly when compared with results from similar previous work. It is patent that the kids enjoyed decorating their maps with these symbols. It is likewise patent that they are talking spatially. They are speaking to anyone who wishes to read these maps. The attributive symbols were, if nothing else, a hit and it is not surprising that they were. If any had drawn maps before they had never had the opportunity to say what they could say now. Particularly popular symbols in the attributive class were those expressing constriction, cleanliness, crowdedness, dirt, social status, joy, "loved it," wowness and personal. The paucity of line symbols reflects the fact that the streets had already been drawn on the skeleton. What more can you say about a street? Few kids bothered to discriminate sizes of streets.

What has happened? Sum the averages and you discover that the map surfaces — aside from the basic skeleton — have been discriminated on the average of 62.8 different ways. For kids, most of them on their third map ever, that is amazing. And very exciting. I think the general summary statement of the nature of change from map set two to map set three is simple: improvement.

Thus we come to the strangest of all our exercises: the mapping of London prior to the visit. David Stea had tried, but never published, something similar a few years ago in Brazil. (Stea, 1971, 2). He called it predictive morphology. Our own interest in the subject resulted from some points raised by Jeremy Anderson in the seminar where I first met Bob Beck. The discussion had to do with the ability of an American to generalize from his home town to other American cities. Could a man raised in Cleveland profitably exploit his urban experience
Figure 4.14  David Abrams' third hometown map. A: skeleton, B: points, C: lines and areas, D: attributes.
Figure 4.15  Susan Lincoln's third hometown map. All attributes shown on a single sheet.
Figure 4.16 Marina Giaconda's third hometown map. A: skeleton
B: attributes.
Figure 4.17 Sven Heller's third hometown map. A: skeleton, B: point attributes, C: line attributes, D: area attributes.
Figure 4.18 Phylis Gordon's third hometown map. A: skeleton, B: point attributes, C: line attributes, D: area attributes.
Figure 4.19  Joy Gray's third hometown map. A: skeleton, B: points, C: lines, D: areas.
Figure 4.20  Tracy Cummings' third hometown map. A: skeleton, B: point attributes.
in Atlanta? Anderson's point, with which I agree, was that he certainly
could and with great justification, for there are enormous similarities
between all American cities. Given the location of the city hall, it is not
hard to predict the location of the city library and so on. Thus, what is the
likelihood that an American drawing a map of London will reproduce
his own environment? With this question in mind we set out to design this
exercise. Also involved was the use of the new mapping method for the
first time outside the context of the exhausted home town situation.
(Once more with that gambit, and we'd have slit our throats, project­
wise.) Worried, lest they have nothing to put on the map, we provided
Group L with an exhaustive list of London place names. This list would
also be used in the mapping of London itself, and early acquaintance with
it would be valuable. In drawing up the list we made several unintentional
omissions, one horrendous; we left Hyde Park off the list of areas!

So what happened? Well, to begin with, only ten kids bothered
to try the map. It was so obviously insane. That they were tiring at the
end of a long questionnaire schedule is not the reason, for yet to follow in
the same mailing was the Ideal City map (which thirteen kids drew) and
the first part of a very long psychological questionnaire (which nineteen
kids answered). No, the reason so few drew the map was because it
made so little sense. But the kids that did it went all out. First of all,
all place names were used, not by each mapper (though three did use each
place name) but by the entire group sooner or later. A total of 231 points
were mapped, 55 lines and 62 areas, or a grand total of 348 items placed
on the ten maps. That's 34.8 items per map, which is not bad for a city
never seen. Furthermore, six of the mappers, all on their own, added
Hyde Park to the list and placed it on their maps. In the following table
a simple content analysis is displayed for places mapped by more than
five kids.

**TABLE 4.3**

**CONTENT OF THE PREDICTIVE MORPHOLOGY OF LONDON**
*(Numbers of students mentioning place, n - 10)*

<table>
<thead>
<tr>
<th>POINTS</th>
<th>LINES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buckingham Palace</td>
<td>Thames River</td>
</tr>
<tr>
<td>Piccadilly Circus</td>
<td>London Bridge</td>
</tr>
<tr>
<td>St. Paul's Cathedral</td>
<td></td>
</tr>
<tr>
<td>St. James' Palace</td>
<td>AREAS</td>
</tr>
<tr>
<td>Lincoln's Inn</td>
<td>Hyde Park</td>
</tr>
<tr>
<td>Parliament</td>
<td></td>
</tr>
<tr>
<td>Westminster Abbey</td>
<td></td>
</tr>
<tr>
<td>G.P.O. Tower</td>
<td></td>
</tr>
<tr>
<td>National Gallery</td>
<td></td>
</tr>
</tbody>
</table>
On the list of places most frequently mapped are many of the most famous names in London. We are not surprised to find that Buckingham Palace leads the list of points, that the Thames leads the list of lines and that Hyde Park — even though not on the list — does the same for the areas. These are names familiar to them. Television, magazines, books, not to mention seventh grade geography, have all implanted most of these names firmly in their heads. But I must confess that I am somewhat bewildered by the inclusion of St. James' Palace and Lincoln's Inn, neither having the sort of notoriety characteristic of the other names on the list. The G.P.O. Tower, while new and less renowned than some of the others, was very frequently mentioned in the brochures and booklets sent to prepare them for the odyssey. In general, then, the lists should not surprise us.

Turning for a moment from the content analysis, let us deal with the issue of the overall shape of the city. Without getting into sophisticated and laborious measures of shape, we can divide the shapes in which the city appeared into three classes: 1) Long and narrow like a cigar (this shape was championed by two kids, one orienting it north-south, the other east-west); 2) An oval, oriented north-south, (one sponsor); and 3) Nearly square, almost filling the paper. The last shape had seven adherents, four orienting it north-south, two east-west, and one presenting a perfect square oriented to the compass. Within these ten shapes, five of them drew the Thames smack-dab through the center of the city, four of them orienting it east-west, the other north-south (in north-south cigar). One kid drew the river slightly south of the center, running it east-west. The remaining two ran the river east-west, tangential to the city, one to the north, the other to the south. The balance of opinion, then, is that the city is elongated in shape running north and south and that the river, running east-west, cuts the city in half. Needless to say, this is accurate regarding the general role of the river in London, and will suffice for shape. (Both these questions are dealt with exhaustively farther on. Compare the trip results with these when we get them.)

Now let's try to place the other content within the shape and around the river. Total catastrophe! As might be expected, there is no order whatsoever regulating the relationship of places on this map. The kids have not placed things on the map as they occur on the lists; nor have they gone from one end of the list to the other; nor have they started from the inside and worked out. Between one map and the next there is no consistency at all. If Buckingham Palace is adjacent to Parliament on one map it is next to the G.P.O. Tower on another and beside the Tower of London on a third. Nor is there any intelligible relation between the River and anything but the bridges and the docks. These are on the River, There is no principle of centrality locating the most important and famous
Figure 4.21 Lana Monroe's predictive map of London. A: skeleton, B: point and line attributes.
places at the center, nor are they located at the edges. The only place consistently placed at the edge of the city is the University of London, and this is where the kids knew they were staying. Despite extensive orienting literature describing the University vicinity in great detail, extolling its proximity to the British Museum and Madame Tussauds, these places are in no way related to the University.

Group L had absolutely no idea of the ways things were going to be, based on TV images (Parliament along the Thames), orientation and field manuals (numerous images), past reading and so on. Furthermore they had no intention of basing London on an American model. In only two cases does the map of London resemble the map of the home town, and in these cases the resemblance is slight to fading.

More positive conclusions can be drawn from an analysis of the overlays. Comparison of the symbol content for London to that of their home towns reveals that they have great expectations about the nature, if not about the layout, of London. Sidewalk cafes proliferate in London and there are none of these at home. Restaurants are up nine to eleven times over the home town. Historical monuments, unseen on the home town maps, abound. The number of cultural establishments rockets from five to fifteen times. The number of amenities in general has risen. London is going to be fun, interesting and enlightening.

Group L is going to Europe for a variety of reasons, but certainly one of them is to experience environments as much unlike their own as possible. If the kids in Group L thought the European cities they were about to visit resembled those in America to any serious extent, would they have been willing to lay out the necessary jack? In this light we can make sense of the apparent chaos of the predictive morphology. The very fact that it is chaotic is an indication of the nature of their anticipations. These kids know American cities with their skyscraper downtowns and their shopping center suburbs, their freeways and courthouse squares. They have drawn these cities for us. London, to be worth the trip, needs to be different. And that is the way they have mapped it. Had they felt able to predict the morphology of London, they simply wouldn't be interested in going. And yet, somehow they have predicted its morphology — a morphology unlike anything they have known. They emphasize this difference, sprinkling London with sidewalk cafes, museums, restaurants and historical monuments in profusion, things rarely indicated on their home town maps. In fact, would it be out of line to suggest that any information coming their way tending to reduce London to American proportions would be rejected, or suppressed? Judging from their maps of London, this may well be the case.
This question of anticipation was sharply focused during our Group L reunion recently held in New York, and although I am here getting ahead of myself, the tale is entirely appropos. The reunion was held in a suite of rooms in the Commodore Hotel overlooking Grand Central Station and 42nd Street. Needless to say, the streets below us were busy with cars and people as only Midtown Manhattan ever is. Candy Fisher, (of Preston, Iowa, a true whistle stop) expressed great disappointment with the crowds. She wanted to see crowds, crowds such as New York is famous for. She also wanted to see tall buildings. (The Pan Am building was outside one of our windows, the Chrysler Building outside another.) I suggested a trip to the Empire State Building. "Oh, I've been there," Nancy wailed, "I mean tall buildings." Unable to do better in the tall department (she had also seen the World Trade Center buildings), I suggested that for crowds she might visit Grand Central Station at rush hour. That sounded exciting, so at five o'clock we descended into the maelstrom. "Oh, I was here yesterday afternoon. This is where we got off the train from Iowa. I mean crowds of people," she exclaimed as she was snatched from me by a particularly heavy eddy of people. When we were able to get together again I shouted, to be heard above the din, "You mean shoulder-to-shoulder-unable-to-move-so-crowded?" "Yes," she cried as she was once again swept away from me by a current heading for the subway. It also turned out that she was disappointed by the lack of violence in New York. She expected to be shot at least once during her visit, or at least to have her purse snatched. Her desire for the sordid was more easily satisfied than her craving for the tall and the crowded. One man puking his guts out in a Grand Central entrance was sufficient for that. Dubuque, the big city for Preston, had been much more impressive than New York, simply because she had heard little about the height of buildings and the sizes of the crowds in Dubuque and that was all she knew of New York. In fact, she characterized the Public Square in Dubuque as thrillingly dangerous, and this in spite of the fact that in my investigation of Dubuque I can find no serious, and little minor, crime in the Square. To justify her trip from Preston to New York, she needed to see something that she had not seen in Preston and Dubuque. She wanted to see buildings lost in the clouds, she wanted a smog that blotted out the sun (not to mention the stars we were seeing), she wanted live violence on every street corner. She wanted, in effect, to have her blood run truly cold, and to have her heart beat truly fast, so that, in some way, she could justify her trip to the big city, to make it really live within her as a quintessentially novel experience. It was this impulse that lay behind the chaos of the predictive morphology of London, a desire to experience a thing truly new.

Yet there was a clearly understood danger in anticipating too much. Too much hope for their experience would lead only to excessive disappointment. Two of the kids wrote little notes on their
Figure 4.22  Sven Heller's map of London. A: skeleton, B: point and line attributes, C: areas.
predictive morphologies. Susan Lincoln, with typical intelligence
divining our purpose in setting the exercise, wrote: "I expect that in
London there will be parts which are just like any typical American city
and there will be parts which are very old." Half her heart said, "Whoa,
don't get excited," while the other had whispered, "Yes, it really will
be different." It was this whispering voice that shows up in her maps.
In London she maps four parks, a palace, and Piccadilly Circus, connected
by a spaghetti-like series of streets. Her map of home consists of a
regular grid littered with shops and free-standing houses, the center
dominated by extensive parking lots, with nary park, palace, or circus.
She knows full well that there are cars in London and thus parking as well,
but who cares, for there are also parks...and palaces...and Piccadilly
Circus.

Sven Heller provided a list entitled "My Picture of London:"

- Mild temperatures
- Pleasant people
- Crowded streets, esp. around Parliament
- Smog covered city
- Wildlife around Thames

The last mapping exercise on this side of the Atlantic involved
the creation of an Ideal City. Dreams of Ideal Cities are as ancient as
the city itself, and the tradition is a grand one. Plato and Aristotle
dabbled with the notion (see Wood, 1971, Chapter I), Sir Thomas More
laid down highly specific plans for such a city, J. K. Wright's older
brother Austin created Islandia with its ideal capital city (see Wright, 1958),
and I myself submitted for seventh grade social studies a paper called
"Idealurb," containing the plans for an Ideal City to be located at the mouth
of the Rhone on property purchased from an impoverished France. The
literature dealing with Ideal Cities is enormous (see Rasmussen, 1949,
Chapter 3; Gutkind, 1969, passim; Gutkind, 1970, Introduction, et passim;
Lemaguy, 1968; Alexandrian, 1969, 186-189; et cetera). It is within this
tradition that we shall try to see the cities generated by Group L.

With a single exception, none of the Ideal Cities the kids
created resembles even superficially the maps of their home towns. The
exception is Lana Monroe and among her first and third home town maps,
her predictive morphology and her Ideal City, there runs a strong family
resemblance. None are copies of another but all have similar shapes,
sizes, and internal morphologies. However, eight of the thirteen maps
closely resembled their authors' maps of London. This throws additional light on what was happening with the predictive morphology. Now we can say with some assurance that London was not only to be different from American Cities, but it was to be fairly ideal as well. Turning our attention specifically to the shape and disposition of the cities we can easily discern two separate groups: the geometric and the non-geometric.

Six kids created geometric fantasies, that is drew perfect geometric shapes within which to create their cities. Among these we find an octagonal, a hexagonal, a square and a diamond-shaped city. The remaining two were radial sector cities drawn within circles. The symbols used on these maps are found in Environmental A.

If I were an urban geographer, I think I would have some reason to find these images disquieting. The resemblance between them and much touted models of city organization is unnerving. I draw particular attention to the cities dreamed up by Janine Eber and Phyllis Gordon. Of course, these are not images of actual cities, which are what urban geographers purport to model. Therein lies the unquiet grave. If these are images of ideal cities yearned for by their dreamers, cannot we be begin to wonder if the same might not be true of the models created by urban geographers, that they are modeling, not reality, but their dreams? I do not push this discussion, but drop it like a hot potato, as merely suggestive. Nonetheless, from the mouths of babes...

The current furor over ecological relationship between man and his environment can be seen in some of these maps. Phylis Gordon has carefully isolated each residential and industrial sector with parks, noting, "Also, I would have small parks sprinkled all over the Industrial areas," Her city is nestled in the country. Erica Cruz (whose map is reproduced below) writes: "In this city no cars are allowed above ground. Instead, small electric buses or underground subways are to be used." Just outside her city we find a recycling plant. In Paris, on August 1st, Erica spoke further about her Ideal City. She wanted to be able to enclose the entire city beneath a clear dome. In plan, her city resembles Greek colonial cities (as reproduced in Rasmussen, 1949, 10).

Of the non-geometric cities (drawn by seven kids) only three were totally irregular. The other four centered on squares of various characters from which street-arms straggled in an irregular pattern. One of these is reproduced below. This is the effort of Sven Heller of wildlife-along-the-Thames fame. This is quite clearly modeled after a very small American town close enough to a major city to support the bed-room community subdeveloment shown. Note the presence of extensive parklands and the major municipal buildings, and the lack of industry to support all this. Lynch has talked about the bottomless
Figure 4.23 Marina Giaconda's predicted London. A: skeleton, B: attributes.
Figure 4.24 Marina Giaconda's Ideal City. A: skeleton, B: attributes.
Figure 4.25 Janine Eber's Ideal City.

Figure 4.26 Phylis Gordon's Ideal City.
Figure 4.27 David Abrams' Ideal City. A: skeleton, B: attributes.
My Ideal City

In this city no cars are allowed above ground.
Instead small electric buses are, underground
subways are to be used.

Figure 4.28 Erica Cruz's Ideal City. A: skeleton, B: attributes,
C: more attributes.
Figure 4.29  Sven Heller's Ideal City.
landmark; this is the unsupported city. Heller is a resident of Milwaukee, Wisconsin.

Probably a great deal can be inferred, in one direction or another, from the Ideal Cities to the actual homes, or from the homes to the Ideal Cities. Thus Miss Cruz, the only one to speak of mass transportation and subways in particular, lives in New York. Undoubtedly a great deal could be made of this sort of thing, but not here. I lack the intimate knowledge of home environments needed to make these judgements.

However something can be said about their desires regarding urban life. Only David Abrams drew an Ideal City capable of supporting a large population. The rest are what must be referred to as villages or very small towns. Furthermore there is an insistence on the inclusion of large amounts of parkland, fountains and other typically European urban amenities. The kids in Group L, whether from experience, or because of the insistence of the mass media see the Ideal City in relatively traditional terms (See Krim, 1972, for an extended discussion of the effects of the mass media in foisting European city imagery on Americans in a brilliant case study of Los Angeles). It is small, it is green, it is clean, it is amenable, and it is surrounded by countryside. In the close resemblance between the Ideal City and the predictive morphology of London it can be seen that this is the image of the city that Group L expects to find fulfilled in London. What happens when these expectations and anticipations and dreams hit the fundamental reality of one of the world's greatest cities is the heart of Project Group L.