CHAPTER 3

In a way it's a pleasure to watch Wolfe doing a complete overhaul on a man, or a woman either, and in another way it's enough to make you grit your teeth. When you know exactly what he's after and he's sneaking up on it without the slightest sound to alarm the victim, it's a joy to be there. But when he's after nothing in particular, or if he is you don't know what, and he pokes in this hole a while and then tries another one, and then goes back to the first one and as far as you can see is getting absolutely nowhere, and the hours go by, and your sandwiches and milk are all gone long ago, sooner or later the time comes when you don't even bother to get a hand in front of your yawns, let alone swallow them.

. . .REX STOUT And Be a Villain

This chapter consists of the material relevant to the mapping question mailed to Group L prior to departure for Europe. Its nature and raison d'etre has been briefly discussed in the foregoing and here I merely want to discuss the issue of chronology. The first envelope mailed to the kids contained Talking With Maps and was in the mails by the 15th of June. Since departure for Europe was on the 30th of June, we were working against a very tight deadline. The final sorting of the entire tour population into units and groups had been completed in the first week of June and we did not receive the names and addresses of our group until the second week. Immediately upon their receipt we rushed the first installment off.

As may be imagined there followed a week in which we scarcely breathed, so great was the tension of waiting for some initial indication of our success or failure. You must understand that we had never met these kids, knew only that they were around fifteen or sixteen years old, and that they comprised a typical tour population, whatever that was. Nor had we much of a clue as to their socio-economic status. Such indicators as addresses reading "500 Country Club Lane, Monroe, Louisiana" and the fact that they could all afford a trip to Europe costing at least \$950 were tenuous to say the least, but filled us with no small trepidation. Would our materials be regarded as irksome bores to be relegated speedily to the waste-basket? Were we trespassing too severely on that valuable last minute time? How were we being received out there in America?

So when the Monday post rolled in with our envelopes returning we were, to say the least, relieved. When we began to examine the results we were overjoyed. Such glorious maps! Such obvious care! That very afternoon the, 22nd of June, we mailed out the second installment, Talking with Maps II, Environmental A, and the first part of the psychological questionnaire. This second installment involved more work than the first and it was with, if anything, increased fear that we waited out that week. The continuing returns from the first mailing did little to allay our worries. That the kids had responded to the first was all well and good. How would they respond to a second, even more demanding, installment?

The next Monday rolled around and the second installment began returning. All was well. There was no question that we had results — and cooperation. But it was the 29th of June. We had not waited for the returns on the second installment to begin sending out the third. This had nothing to do with maps but contained the second part of the psychological questionnaire along with the stereotypes schedule. The

instructions included with this third mailing begged the kids not to mail this back to us but rather to bring it with them to the airport where we would, in all innocence I say this, pick them up.

Three things about this operation we considered critical. The first, of course, was that all the kids understand the rudiments of our approach to mapping. This was the raison d'etre for the entire affair. The second, and more general reason, was that we wanted to have effectively introduced ourselves, our roles during the tour, and the project as a whole to the kids prior to arrival in Europe. In this way, the work could commence immediately and no time would be lost during the critical first few days. Third and finally, we wished to know as much about Group L as possible. The schedules would contain valuable information about the kids which would be of no little aid during the tour itself. It was with this objective in mind that we asked the kids to bring the third installment to the airport.

The results of these introductory exercises are examined in the next chapter. Naturally, we had the time neither before departure, nor during the trip itself to make so minute an examination as is essayed in the following chapter.

All was not smooth sailing. We had not, at the time of departure, received returns from all concerned, and items such as the following began to appear with increasing frequency:

Gentlemen:

I am working full time prior to departure date, June 30, 1971. I have completed all requests except Part II and Part III. I personally found the symbols to be most interesting and useful, however the late date of receiving the materials was too demanding of my time.

Robert Watson

Shoal waters were ahead but, without further ado, I present <u>Talking with Maps</u>, <u>Talking with Maps II</u>, and <u>Environmental A</u>, exactly as sent to the kids themselves, without correction or addition.

Part I

Just exactly why it is so exciting to view the world from a spot high above its surface is hard to say, but still, who doesn't appreciate such a view! Searching for such views, people go to the top of the Empire State Building in New York City, the Memorial Arch in St. Louis, the Needle in Seattle; searching for such views people scale mountains, hills and cliffs everywhere; to get such views people will pay higher rents to get higher floors in apartment buildings, and almost always pick window seats in airplanes. From ski lifts to ferris wheels, the view from above is exciting. Nor is this purely an American thing. People around the world all find pleasure in such views.

While the excitement varies from situation to situation and from person to person- and I'm sure you can think of differences in your own experience, not only is it fun to be high up above the world, but you see a view of the world that is increasingly grand, increasingly enlarged, increasingly allencompassing, the higher up you are. To better understand the truth of this fact - that the viewable area increases with altitude - you can perform a simple experiment. Sit down on the grass and get your eyes as close to the ground as possible. Do this in your yard or in a park. Now raise your head to a sitting position. Do you see more of your surrounds? Now stand up and you'll be able to see still more. From a standing position you can see over low walls that would have blocked your view sitting down. Now increase your altitude. The second floor of your home or your school will considerably increase your altitude. Or climb high up in a tree. Now, how much can you see? Think about how much you can see from an airplane - or the ultimate view of the astronauts on their way to the moon. They can see half the earth in a single glance.

For much of our daily experience such an overview is not necessary or even possible. To see all of your classroom, you don't need to climb the walls. Nor do you need to float above a baseball field to see the game (although there might be some advantage to sitting high up in the stands). These are relatively small areas that you can take in standing up or even sitting down. But now think of an area, the size say, of your city, the whole city. You can't see this all at

once unless you're above it, unless you take an aerial view. Are there reasons for wanting to see such an area all at once? Seeing an entire city from above allows you to understand the city better, to relate streets to streets better, to see the entire course of the river through the city, to understand how that landmark relates to that landmark. The result is an increased ability to move through the city on the ground, to know where this or that street goes even though you can't see where it goes from the ground. In Paris, this would be one reason for visiting the Eiffel Tower - to see Paris laid out before you at your feet; in London this would be a reason for visiting the Post Office Tower - to get an overview of London.

There are, of course, other ways to get this overview. of these is from photographs of the city taken from the air air photos. When you look at an airphoto it is almost as though you are above the city. And from airphotos, it is a simple step to maps. Maps, common ordinary everyday maps, provide a very similar overview of the city. Of course, they don't show all the houses and chimneys and people looking like ants, but they have advantages that more than make up for these losses. Say you and a friend were on top of a hill overlooking your city and you pointed somewhere and said: "There's our Neighborhood," and your friend pointed somewhere else and said: "No, there's our Neighborhood." Views, like airphotos, don't have names written on them; they won't help you answer this kind of question. But maps do have names on them and that's a real advantage. Furthermore, maps can show imaginary things like boundaries. Between states, for example, the boundary is mostly invisible. We know where the boundary is because it is on a map. Maps can show many things that you can't see from a view or on an airphoto. Maps can show districts, cities, countries, names, populations, densities (like so many people per square mile), none of which can be seen from the air. So, if maps are less exciting than airphotos and real live overviews, their practicality than makes up for the losses.

Now if reading a map has advantages, how about making a map? People make maps all the time, for instance if a friend from another city is coming to visit you, you may draw him a map of how to get from the nearest Interstate or Turnpike to your house. On the following sheet of paper, I'd like you

to draw a map of your city, and I'd like you to draw it now, before you go on reading, because we'll be talking about the map you drew later on. So without further ado, draw a map of your city. When you've finished your map, continue reading.

Part II Answer questions in blanks provided.

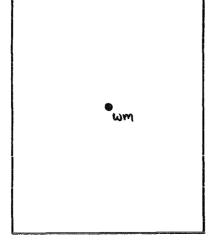
Now, of course, we don't know what you've drawn, so we
can't analyse your map, but you can. One thing, please
don't go back and draw anything else on your map, because
we'll want to see it. The first question I want to ask
concerns the extent of the area you mapped. Did you map
only downtown, or only your neighborhood, or some other
small part of the city? Or did you try to map the whole
city?
Secondly, what place is in the center of the paper? Is it
the real center of the city? The square? The commons?
Or is your own home in the center? Or some place you're
familiar with?
Thirdly, does your map cover the entire sheet of paper or
just a small part of the paper?
Fourthly, what is the scale of your
map? This question is more complex than the others and may
need some explanation. Take your thumb and put it somewhere
anywhere, on the map. Now, how many miles, or feet, or
blocks does your thumb cover?
Move your thumb around the map.
Does it always cover the same number of units, of miles or
feet?
If it does, your scale is so many units per thumb. If you
were to use a ruler, you could determine true scale: so many
units per inch. But if your thumb does not cover the same
number of units - if here it covers two miles and there
twenty miles, then your scale is inconstant. Why is it in-
constant?
Did you draw places you know better
larger than other places?
Think about these questions.
Grade your map. Does it show all that you know about the
place you're mapping? More questions. What symbols did you
use for streets?
Did you draw streets?
What symbols did you use for buildings, rotaries, inter-
changes?
Are the symbols consistent?
Does the same symbol always
stand for the same thing?

Now I want you to take an imaginary trip on your map. Pick a street and in your mind move along that street as you

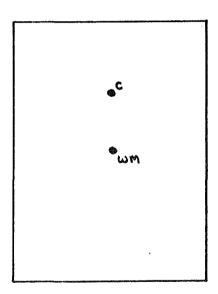
usually do by foot or by car or what have you. You're
moving down the street. You come to an intersection. Look
around you in your mind. Do the streets cross at right
angles, or at some strange angle?
Look at your map. Did you draw the
right angle of intersection?
Wander around your map in your mind and
visualize where you are. Is your map accurate or could it
have been better?
How many streets did you draw?
How many more streets are there that
you know but didn't draw?
Do the streets you drew go to the right
places?
Do they go in the right direction?
The chances are, that no matter how good your map is, it

The most likely reason for the fact that your map is not as good as your knowledge of the city lies in the way you drew your map. We want to suggest another way of going about it that may help you draw a better map. First, an example: we are going to map Washington, D.C. in this new way.

1) We will pick a particular place or point (a building, landmark, intersection, rotary, square, and so on) that is as close as possible to the center of Washington. We will represent this point by a small circle, and we will place it in the center of the page as in the following illustration. We will also lable it:

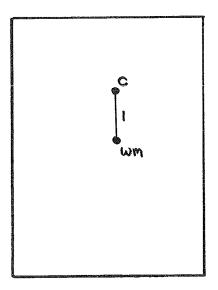


2) We will pick a second point according to the following rule: it will be a point which we associate with the first point (in this case the Washington Monument), which is distinct and separate from it, and yet which is not too far away. Perhaps it is visible from the first point, but not necessarily. But it is definitely very distant. yourself standing at the first point and looking down the street, or mall, or square, or commons. Where is the next point that is equally as important as the first in terms of finding your way around? Is it a major intersection? rotary? A big bend in the road? Another landmark that is prominent? From the Washington Monument we see the Capitol. That will be our second point. Before you put it down, visualize how far away you think it is. Remember, if you think it is half a mile and you draw an inch, then every time you draw an inch it should stand for half a mile. Ten miles would be twenty inches. How big is your paper? This is where you will set the scale for the entire map.

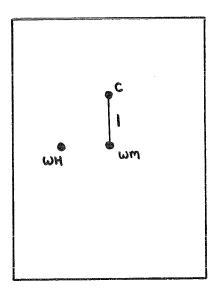


3) Now we'll connect the two points. In Washington the Mall runs between them, but whatever it is, we will use a simple line to show it. If it is a straight connection, use a straight line. If the connection bends, make your line bend, and so on. The important rule here is: Never draw a

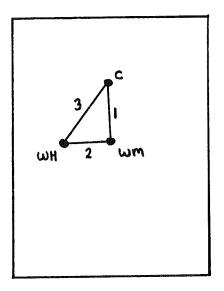
line first unless you have two points to connect. Always proceed with the first point, then the second point, then the line, then point, line, point, line. Number the lines starting with 1 as in the following illustration:



4) Pick a third point. <u>If possible</u>, you should be able to connect this third point to both of the first points. We pick the White House as our third point.

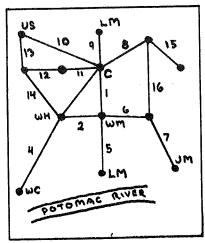


5) Now connect this third point to the preceding two, <u>if possible</u>. In our case, it is possible. Between the White House and the Washington Monument runs the Ellipse, while Pennsylvania Avenue runs between the White House and the Capitol. Number these lines 2 and 3. It will not always be true that the third point will connect to both preceding points. Sometimes it will just connect with one point.

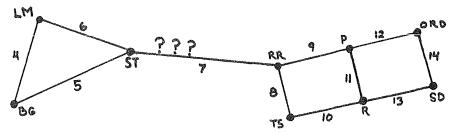


6) Proceed in this manner, point, line, point, line, to build up your map from the inside out, bit by bit. Imagine standing at the points before drawing your next point.

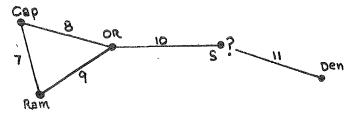
Move along the connections in your minds. Use small circles for your points and simple lines for your connections. Remember that points can be anything like buildings or intersections or landmarks or hilltops. After a while our map of Washington might look like this:



We are going to ask you to draw another map of your city and to draw it in the manner we've just described, with a couple of additional wrinkles. One of these wrinkles will allow you to show something you're not really sure of. For instance, if you know there is a street there but aren't really too sure of its shape (curvy or straight) or length, draw it anyway, but use question marks to show your unsureness. More question marks will mean more unsure.



And if you know a street intersects another street but are not sure of the angle of the intersection, DON'T connect the line to the circle and leave a question mark in the empty space:



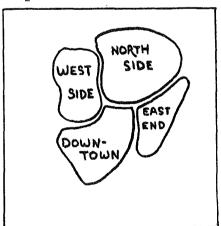
Let's review the rules for making a map:

- 1. Pick a centrally located point or particular place.
- 2. Represent this with a small circle and label it.
- 3. Pick a second point or place that is the right distance from the first. Think about how far away it is. Remember, this will set the scale for the whole map. Use a small circle and don't forget to label it.
- 4. Connect it to the first point with a simple line. Number the line 1.
- 5. Continue to choose points connecting them to as many previous points as possible. Label all the points and number each line as you add it to the map. Work from the center out.
- 6. Use question marks to indicate uncertainty.
- 7. Use a pencil (not a pen or magic marker) with a good eraser.

The following sheet of paper is a sheet of tracing paper. Do not draw your map on it. Draw on the white paper beneath it. Take your time and draw a good map.

Part III

Now that you've drawn your map go back and put the piece of tracing paper down on top of it. You'll notice that you can see through the tracing paper to the map you've just The closer the tracing paper is, the clearer your map will be seen through it. There is an important point to the tracing paper. It allows you to draw on your base map without cluttering it up. And with two sheets of paper you could draw two different sets of things about your city. with three sheets of tracing paper three sets of things and On this sheet of tracing paper I want you to draw These regions could be anything you see happening regions. They could represent neighborhoods, shopping in the city. districts, downtown, or however you see the city divided. The point is that these regions are not points, that is, not a single building or landmark, and not lines, that is streets and so on, but collections of buildings, landmarks, streets and so on. Use a single line for each region you draw, but before you draw anything, think about the boundaries of these regions. Think about what street is the edge of what region and which buildings are in each region. paper itself will look something like the following, but underneath it you will be able to see the streets and points of your original map.



When you've finished both maps (the first one you drew with no instructions, the second map with the circles and lines on it) and the tracing paper overlay, return the exercise as soon as possible to us.

TALKING WITH MAPS II

This exercise is the second and final installment in our quick course in understanding and expressing the environment in maps. It consists of three things: 1) these pages in your hands; 2) five sheets of tracing paper; 3) a small booklet called Environmental A. The pages in hand and the tracing paper should be returned to us by mail as soon as you have finished with them, but we want you to bring Environmental A with you on the trip to Europe. We think that you'll enjoy trying to record your experiences using these symbols. In fact, we feel certain that they'll help you see Europe as few travelers ever have before. Your group is the first and only group to be testing out this language. . .and it is a language, a language that helps you talk about the European environment that you'll be experiencing on the trip.

The main purpose of this installment is to introduce you to Environmental A, but before we get into that, there are several additional points we'd like to make. First of all, some words of praise are in order regarding your performance on Installment I of the cartography course. Your original maps were surprisingly good. For the most part they were detailed and obviously done with interest and care. On the basis of this information alone, we are looking forward to having a good experience with you in Europe. Your second set of maps were also heartening. One of the reasons your performance was so pleasing is because Installment I was rather boring. We think you're really going to find this second installment interesting.

Part I

Let us start off by explaining to you our general idea behind the unique technique you're going to be using. We feel that there are two basic things wrong with traditional mapping approaches, and while they'll sound contradictory, they really aren't. First of all most maps are too cluttered. They have so much information on them that in many cases they become hard to use. But at the same time they don't contain enough meaningful information, and by meaningful we mean that while they show where a street is, they never tell you anything about that street, like whether it's pleasant and treelined or narrow and shadeless and crowded. So as far as we're concerned, traditional maps have too much information of the wrong sorts. What sort of a conversation can you have between maps of this sort? We feel, and think you'll agree, that our technique gets around both these objections.

First of all our map technique is based on the creation of a simple network or "skeleton." This "skeleton" is what we had you work out in Installment I, when you connected points and lines. But the big difference between the technique that you'll be using and the one traditionally used is that this skeleton will never become cluttered up because additional items of information will be overlaid on top of this skeleton on tracing paper rather than on the skeleton itself. So no matter how many different types of information you want to overlay on the skeleton, the skeleton will always be there for reference. Let us give you a hypothetical example of what this can mean. Take your "skeleton" of your city. Generally it contains points or places connected by streets or lines, but it doesn't contain attitudes or feelings or perceptions of these places and streets. Now if you want to talk to someone about a place using a map, one of the things you'd want to say would be how you felt about those places and streets, which you liked, which you didn't and why. You might want to talk about "the feeling" in the air of a place, whether it was hostile or friendly, pleasant or unpleasant, crowded or empty, filled with a sense of life, or a sense of boredom, gay or sad, and so on. Or you might wish to talk about the types of businesses, or the quality of the restaurants, or whether or not the district closed down early at night or stayed open late. Or you might wish to describe the general type of architecture, the pace of life, the general color prevailing, the strong characteristic smells, the feeling of the pavement beneath your feet or the street beneath your tires. All of these attitudes, feelings, senses, attributes, types and judgements can be mapped. Maps can convey your view of the city. Maps can be very personal.

But being personal is only half the problem, for just as though you were trying to communicate an experience verbally you have to use words that everyone can understand and you have to be accurate. Imagine trying to tell someone about some experience and he didn't speak the same language! Or imagine two people trying to tell a third person about some event and they both disagreed about what happened. In either case, there would be difficult problems in communicating. Our mapping technique trys to get around these problems. Drawing the simple skeleton first using points and lines insures that there will be greater accuracy, while Environmental A provides a common language, a common set of map "words." Environmental A is thus a sort of map language dictionary. When you've mastered this technique you'll really be able to talk to us and everyone with maps!

The following sheet of paper is waiting for you to draw another map skeleton of your city. This second skeleton is important for two reasons. We want to see a second skeleton to compare with the first to understand how and why skeletons will change through time; but it will also provide a base map for you to use with Environmental A. We want you to tell us about your home town; we want you to talk to us using nothing but maps. But first, let's review the rules:

- 1. Pick a centrally located point or particular place.
- 2. Represent this with a small circle and label it.
- 3. Pick your second point the right distance from the first. Try to visualize how far away it is. Remember that this will "set" the scale for the whole map. Use a small circle and label it.
- 4. Connect it to the first point with a simple line. Number the line 1.
- 5. Continue to choose points connecting them to as many previous points as possible. Label all the points and number each line as you add it to the map. Work out from the center in small steps.
- 6. Use question marks to indicate uncertainty of direction or length.
- 7. Use a pencil with a good eraser.

If you are now satisfied with your point-line network, pick up Environmental A. Quickly run through the symbols to familiarize yourself with the sorts of words available in this mapping language. Notice how they're arranged by point, line and area. Let's deal with this first. All environmental phenomena can be classified either point, line, or area, depending on the scale of operations. For example, the floor of your room is an areal phenomenon, the walls linear phenomenon, and a wastebasket a point at this scale. But when you map a larger area, your entire house becomes a point, streets become linear and blocks areal. At a still smaller scale, the entire city becomes a point, rivers become linear and entire states are areal. At the scale of the entire universe, the entire earth becomes a mere point. We'll be working at the scale of a city. In the following blanks, try to think of as many point, line, and areal phenomena as possible:

Points:		- Marie - Mari		
Lines:				ikk yeliya a alikalakiyo a dilika egili a aliga ilikalar ekiya adiga yaliga yaliga yaliga yaliga ayalar a ali Oʻzayoti a aliga aliga ayali aliga ayali aliga alika aliga alika ayali aliga ayali ayali ayali ayali ayali aya
Areas:	Maganasan gan amerikan dan gan arti-untur dan dan selbe en		anginen (kanada na kanada na kanada na kanada na kanada na kanada na Albanda na Albanda na Albanda na Albanda n Albanda na kanada na	

Check over your lists and compare them with the things listed in Environmental A. Note particularly the variations on a theme in the dictionary. For example, if we have you use simple lines for streets and other connections on the skeleton, we provide a whole bunch of symbols to allow you to talk about the streets. You can now note what sort of street or connection it is, whether an alley or street, whether a freeway or a boulevard. Intersections are points and there are a variety of symbols for intersections, for example an overpass or cloverleaf or rotary or simple stoplight style intersection. But this sort of commentary must not go on the "skeleton." Take out the staples holding these pages together and place a sheet of tracing paper over your skeleton. Now go to town. You have three sheets of tracing paper with which to describe your home town. Go through the dictionary slowly and carefully. Getting acquainted with the symbol for an intersection is just like learning the word for "intersection" in a foreign language. Tell us all about your home town, how you like it, how it works together to make a functioning living place, an environment for life, your life.

New Words. We may not have all the symbols you'll need. You may want to use symbols to express things we haven't thought of. This is a common problem for writers, too. When something new is discovered or invented, like the telephone, a word must be created to describe it. When authors use a new word they define it, either in a footnote or in a glossary. A map glossary or footnote is called a "legend." If you wish to use a new word, put it in a legend on your map, but also enter it in the dictionary under its proper heading. We have left space in Environmental A for just this purpose. OK, tell us about where you live!

This exercise may seem a little strange to you at first, but it really isn't. Just as you can talk to us about someplace you've lived all your life with a map, so you can tell us about a place you've never been. You have some idea of what London is like. You know the River Thames flows through London, that Westminster Abbey, the House of Parliament, London Bridge, the Tower of London, Pall Mall and so on are in London. Also Carnaby Street and the Royal Albert Hall. What we want you to do on the following page is to draw a map of London, a city you've never seen. What you will be telling us is about your anticipations of London. Do you feel it's an orderly city or confusing? Is it crowded or empty feeling? Does it have little narrow streets or big broad boulevards or both? Is it a bright city, a gay city, a hopping city? Or is it slowly paced, drab, dull? Using the vocabulary provided in Environmental A you can tell us all these things and more.

Obviously we are trying to get at something about your preconceptions of London. Your preconceptions will help us design better and better learning experiences for you in Europe. For these reasons we ask you not to use a map of London in completing the exercise. In the rules for creating the skeleton of a city we have provided question marks to indicate uncertainty. Use a lot of question marks in mapping London. In fact, you may not necessarily be able to make streets come together. Use question marks, but don't forget, you're mapping someplace you've never been. You're not expected to know London at this point, but you may have anticipations and expectations about what London is going to look like. That's all we expect.

Use the tracing paper (save the last sheet however) to tell us your feelings about parts of London. Do they have particular smells? Colors? Styles of architecture? Put all these things on the tracing paper overlay, but make sure they overlay a skeleton of London. As we said, this may seem a little strange, but actually it will show you the potential use of Environmental A; it will show you that anything in space you can talk about, you can map, even anticipations.

To help you out on this part the following pages contain a long list of things in London. Some of them you will recognize, some of them you have never heard of. You will get a chance to become personally acquainted with most of them on the trip. See how many of them you can put on your map. Don't forget that only the point and line things will show up on your "skeleton," and there only as small circles and simple lines, numbered and labeled. The areas will show up on the overlay along with the descriptive symbols from Environmental A for the points and lines.

LIST OF LONDON PLACES

POINTS

Our list of points of interest in London is much longer than our list of lines or areas. There are several reasons for this state of affairs and they're all good. First of all, it's only logical that there be more points than lines or areas, since many points may exist on a single line, and since several lines will usually be found in any given area. Secondly, if you will just think of your knowledge of any famous city, like New York, you'll realize that only a few streets are really famous, like 5th Avenue or Park Avenue, while there are many points of interest that you've heard. of, and I certainly don't need to list those. But even fewer areas than lines are well known, though you've heard of several in New York, like Harlem and Greenwich Village. But areas, which generally tend to be neighborhoods are of most importance to the long time resident, and not to the outsider. You'll see that this is the case with all the cities we visit in Europe. Note when you scan these lists that you've heard of a lot of these places. So without further ado, here's our list of London places, most of which you are going to see in person this summer.

Hyde Park Corner Claridge's Hotel Nelson's Monument University of London (Main Campus) The Winged Archer The Temple Speaker's Corner The Tower of London The Royal Courts of Justice St. Paul's Church Lincoln's Inn The U.S. Embassy Madame Taussauds King's Cross Station Victoria and Albert Museum Gray's Inn Paddington Station The Royal Mint Savoy Hotel New Scotland Yard Euston Station The Bank of England Holborn Circus Trafalgar Square The British Museum Guildhall Marble Arch Russell Square

Royal Opera House

Elephant and Castle Buckingham Palace The Cenotaph Tate Gallery Parliament Talk of the Town Covent Garden Grovesnor Square Soho Square St. Pancras Station Old Vic Theater Admiralty Victoria Station The Monument Picadilly Circus St. James Palace Westminster Abbey Royal Festival Hall 10 Downing Street Saddler's Wells Theater St. Martins in the Field Church Post Office Tower National Gallery House Guards Parade

LINES

Our list of lines, even though it is substantially shorter than our list of points, is nevertheless quite long. Still, we'd bet that you'd heard of at least half of them - in the newspaper, in Sherlock Holmes stories, in James Bond stories, and so on. These are our lines:

Blackfriars Bridge
Park Lane
Bond Street
Oxford Road
Victoria (The) Embankment
Shaftsbury Avenue
Regent Road
London Bridge
Pall Mall
Westminster Bridge
Tottenham Court Road
Tower Bridge

Charring Cross Road
Fleet Street
Downing Street
Waterloo Bridge
Whitehall Street
The Thames River
Vauxhall Bridge
Picadilly Road
Carnaby Street
The Strand
The Mall
Holborn Road

AREAS

As we suggested earlier, the areas will be least familiar to you. Still, many of the names you'll recognize, even though you may not have realized that originally they were names of areas in London. Note the many sorts of things that are big enough on the city scale to be called areas.

Green Park
Highgate
Billingsgate Market
Kensington Gardens
The West End
London Docks
South Bank
Soho
The City
Knightsbridge
Hampstead Heath
Picadilly

The Serpentine
Regents Park
Hampstead
Mayfair
South Kensington
Chelsea
Petticoat Lane (Market)
St. James Park
Portobello Market
The East End

Part III

This is the last exercise, but potentially the most interesting. As you know, there are many serious things wrong with American cities today: they are too crowded, too filled with cars and parking lots, too dirty, too dangerous, too drab, lacking in green spaces, in parks and so on. The people who attempt to do things about these problems are city planners and their most important tool is the map. They map the city as it is in all its aspects and then they map the city the way they think it should be. The plans they develop are an attempt to make the map of the city as it is conform to the map of the city that they would like to see. Often people complain about what city planners suggest. Many people would like to see something different. So they go to meetings with the planners to make their suggestions. There should be more schools, more parks they say. "Where?" say the planners. The people have specific suggestions. Then the planners pull out their maps and show why it must be the way they say. People have a difficult time communicating with planners because they don't speak the same language. Planners speak the language of maps; most people don't. But now you do.

On the next sheet of paper we would like you to draw a map of an ideal city, your ideal city, the city you would design if you were a city planner. Proceed as usual. First create the skeleton of the city, the points and lines, the buildings and streets as it were. Use small circles and simple lines as always. Then on the tracing paper add the skin and muscles and hair of the city: the shopping districts and entertainment districts and recreational areas; the parks, skyscrapers, flowers and fountains; the factories, and freeways of the city. This is your ideal city. It could be a city for a million or a thousand. Perhaps when you return from Europe where you'll see cities different from anything you've ever known, you'll have some real suggestions for the planners. You'll also be speaking their language. This is a dry run. Maps will let you say anything you want.

Please don't forget to return these things to us as soon as possible.

(NOTE: The following dictionary of symbols was printed as a small bound booklet measuring 6-1/4 by 9 inches. The cover was gray and black and under the words environmental a (entirely in lower case type) two young black eyes stared out of a faced truncated above the brow and below the nose. The size was such that it could be carried about by the kids in their special tour flight bags. It was fairly attractive and certainly of interest to most of the kids. Included at the back of the book were a number of blank pages, useful for whatever purpose. For our purposes it has been reproduced full size, and the blank pages have been omitted.

ENVIRONMENTAL A

You've been hearing a lot about Environmental A, and this is it; a graphic language system that'll let you talk about your European experiences in a new and exciting way. Actually, you've already been using Environmental A, because this new language is not only a set of symbols, but a whole new way of using them as well. There are three basic parts of this new language, and you've already been introduced to the first two: 1) The single most revolutionary aspect of Environmental A is the method for creating the underlying skeleton or network of points and lines. This method you've already used two or three times; 2) A second major change is the use of overlays on which to portray more interesting sorts of information than can be shown on the skeleton; 3) The third new aspect is the set of symbols you'll be using from now on, on the overlays. If you'll flip through the following pages, you'll note several large empty areas. These areas are for you! We left them blank because we recognize the fact that you will have valuable and interesting suggestions to make about new symbols - not only new symbols, but changes in old symbols and new things to symbolize. Your advice will be taken very seriously. We need your advice!

Part I THE SKELETON

These are the same old rules. They are put here for review purposes. You'll be able to consult them in Europe while you're drawing your maps, because you'll have this booklet with you.

- 1) In the center of the paper place a small circle. This circle represents the center of whatever you're mapping. In London this may be Trafalgar Square, in Paris the Place de la Concorde, in Rome the Forum. Always remember that this first circle is the center.
- 2) Stand at this point in your mind. Visualize the way the streets run off from this point. Travel down them in your mind until you come to a second point. This point must not be too far away from the first and at the same time it must not be adjacent to the first.
- 3) Before you place this point on the map, visualize in your mind the distance between the two points. Remember that this distance will set the scale for the entire map to follow.

- 4) Now connect these two points with a simple line.
- 5) Pick a third point in the same manner that you picked the second point. Connect this third point to both preceeding points if possible.
- 6) Proceed in this manner to build up your skeleton. Connect each new point to as many preceeding points as possible. Work from the center of the map out to the edges. Don't go jumping all over the page.
- 7) LABEL EACH POINT. USE ABREVIATIONS WHERE EVER POSSIBLE.
- 8) NUMBER EACH LINE SEGMENT AS YOU PUT IT ON THE MAP.
- 9) USE QUESTION MARKS TO INDICATE UNCERTAINTY FOR DIRECTION AND LENGTH OF LINE SEGMENT.
- 10) PUT ALL ADDITIONAL INFORMATION ON THE OVERLAYS.

Part II

The dictionary portion of Environmental A follows immediately below. It is broken up into eight smaller units. There is a section of point symbols, line symbols, area symbols, and attribute symbols. This last section is potentially the most interesting. It consists of symbols that will allow you to modify any other symbol. For example there is a symbol that let's you say whether or not you liked a place. These symbols are like adjectives and adverbs in English. In addition to these eight sections there are four blank sections. These are for you to fill in with any new symbols you come up with.

THESE SYMBOLS ARE TO BE USED ON THE OVERLAYS ONLY. They will go over the points, and lines of the skeleton. Let's take an example. Say you used Trafalgar Square as the center of your London Map. This will have been symbolized by a small filled-in circle on your skeleton. But what is it? From looking at your skeleton alone, who can tell? So first off, you'd look up the symbol for a square. It's a small square inside a larger square. On your overlay you'd put this symbol directly over the small skeleton circle. It would not be as small as your small circle; in fact it would be as large as necessary. Now, anything else to say about Trafalgar Square? Look up the symbols for crowded, constricting, noisy, hot, or conversely for empty, expansive, quiet, cool. Glance through the dictionary. Look at all your options. Say as much, or as little, as you like. Don't, however, forget that the symbol goes over a point or a line on the skeleton. Unless it's an area symbol. These will cover large numbers of points and lines.

POINTS

AIRPORT - See TRANSPORTATION TERMINAL

APARTMENT - is a single home symbol (a square), three times high. Join this symbol together to create blocks of apartments. ARENA - See STADIUM ART GALLERY - See SHOP BANDSTAND - this symbol looks like the symbol for a kiosk but it has a circle on the bottom BANK - this is symbolized by the grill at the bank Ш teller's window BAR - this is symbolized by an olive with a toothpick in it BELL - use a small bell for bells BENCHES - this is a simple drawing of a bench BILLBOARD - this is a heavy and dintinct line, that's all BOAT - our symbol is a simple outline of a boat

BUILDINGS - See GOVERNMENT BUILDINGS, SKYSCRAPERS, STORES, APARTMENTS, HOMES, CASTLE, CHATEAU

BUS STATION - See TRANSPORTATION TERMINAL

BOOKSTORE - See SHOP

CAFE - See OUTDOOR CAFE or RESTAURANT



CASTLE - this is a tower from a castle. It is also the symbol for a CHATEAU, a TOWER, and a PALACE

CHATEAU - See CASTLE

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CHURCH - the symbol is a cross. See also TEMPLE

COLLEGE - See SCHOOL

CONSTRUCTION - this symbol is based on the famous crane invented in Europe that climbs up with the rising building





DEPARTMENT STORE - this is symbolized by a simple outline of a large building. This symbol is easy to join together resulting in a street lined by department stores.

See also SHOP

DISTANT POINTS - See HILL, MOUNTAIN, RADIO TOWER

DOCK - See TRANSPORTATION TERMINAL

ELEMENTARY SCHOOL - See SCHOOL



FACTORIES - our symbol for a factory is simply a hammer



FIRE STATION - this is the fireman's ladder

FLORAL BANKS- See FLOWERS

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FLOWERS - this is a flower for flowers

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FOUNTAINS - the symbol is water spraying in the air

GARDENS - See FLOWERS

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GAS STATIONS - this is a circle with a "G" inside

GATES - There gates are gates in walls and consequently cannot exist without a wall. See WALL for this symbol. A "city" or "monumental" gate is sumbolized under ARCH

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GATHERING POINT - this is where people congregate for the sake of congregating. Includes things like the Speakers Corner in Hyde Park, various plazas in Italy.

GOVERNMENT BUILDING - this is the basic home symbol (a square) turned into a rectangle with a black arrow pointing to the street. This would include post offices, treasuries, ministries, embassies and so on. See also SKYSCRAPER

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GRASS - this is a simple symbol. Do not confuse this with the symbol for fountains.

GRASSY PLOTS - See GRASS

HIGH SCHOOL - See SCHOOL

HILL - use this symbol for a hill on the horizon

HOME - the single, freestanding private hime is symbolized as a simple empty square. Joined together you have ROW HOUSES.



HOSPITAL - the cross of the International Red Cross



HOTEL - the basic home symbol (a square) with an X drawn larger than the square over it. See PENSION, INN



INTERSECTION - the small filled-in circle used on the skeleton. But see ROTARY, SQUARE



KIOSK - this is a simple drawing of a kiosk. Use this symbol for all newspaper stands, book stalls, and vendors of all sorts.

LIBRARY - See MUSEUM



MONUMENTS - this is an obelisk. For other monuments see ARCHES, STATUES



MOUNTAIN - use this symbol for mountains on the horizon only



MUSEUM - this is a swank building with pillars. Also Stands for LIBRARY and OPERA HOUSE or any high culture fancy building



NIGHT CLUB - this is a picture of a record.

OPERA HOUSE - See MUSEUM



OUTDOOR CAFE - This is a simple drawing of a typical cafe table

PALACE - See CASTLE

PARADE - See also PLAZA

PENSION - See INN, HOTEL

PIER - See TRANSPORTATION TERMINAL

PISSOIRS - you'll only find these in Paris. Our symbol shows the pissoir wall as seen from above

PLAZA - See also SQUARE, ROTARY

POLICE STATION - This is the cop's badge

PRIVATE HOME - See HOME

RADIO TOWER - our symbol is simply a little radio tower

RESTAURANTS - symbolized by a spoon and fork crossed.

See also BAR, OUTDOOR CAFE

ROW HOUSES - See HOME

ROTARY - See also SQUARE, PLAZA

RUINS - this symbol is a crumbling pillar

SCHOOL - a school is the basic home symbol (the square) with an identifying letter inside the square.

ELEMENTARY SCHOOL

HIGH SCHOOL - including Junior High

UNIVERSITY - including colleges

SHIP - See BOAT

SHOP - this symbol is a take-off on the department store symbol and is easy to join together creating a street lined with shops.



SHOWROOMS - This is a square with an "s" inside



SKYSCRAPER - this is a rectangle with a blackened arrow pointing away from the street



SLOPE - in using this symbol be careful, the curves only point downhill. If you wish to indicate uphill movement, use the symbol, but remember the curves point downhill.



SMOKESTACKS - this is a smokestack with lots of smoke

SOCIAL GATHERING POINT - See GETHERING POINT



SPORTS FIELD - use this soccer ball symbol for all sports fields



SQUARE - See also ROTARY, PLAZA



STADIUM - this is a simple drawing of a stadium. Also stands for ARENA

STOP LIGHTS - See TRAFFIC CONTROLLERS

STORE - See DEPARTMENT STORE or SHOP

SUBWAY STATION - See TRANSPORTATION TERMINAL

SYMPHONY HALL - See MUSEUM



TELEPHONE BOX - this is symbolized by a small telephone receiver



TEMPLE - the symbol is a star of David. See also CHURCH

TOWER - See CASTLE



TRAFFIC CONTROLLERS - This is a simple drawing of a stop light, but stands for all signs or lights that control traffic.

TRAIN STATION - See TRANSPORTATION TERMINAL

TRANSPORTATION TERMINAL - the basic sumbol is an arrow entering and stopping in a simple geometric shape. The shape depends on the type of transportation.

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BUS - a Circle

BOAT - a Boat shape



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TRAIN - a square

SUBWAY - a square





AIR - a triangle

If there is more than one type of transportation at a terminal, use the symbol of the major type.

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TREES - we have two tree symbols. One is for evergreens, the other for deciduous trees, but use which ever you prefer.

UNDERGROUND STATION - See TRANSPORTATION TERMINAL

UNIVERSITY - See SCHOOL

VENDING STALLS - see KIOSK

VIEW - see VISTA

VISTA - this is a point from which there is a terrific vista or view and is symbolized by an open eye with an arrow pointing in the direction of the view.

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WAREHOUSES - our symbol for a warehouse is simple to draw and it represents a forklift truck.

WATER - use this symbol for small ponds and the like.

POINTS - NEW WORDS

Here are some blank spaces to put any new symbols you may think of. Anything at all.

LINES

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ALLEYS - an alley is a step down from a lane, so we dash the lane symbol.

AVENUE - this is wider than a street or road and hence is symbolized by three simple lines.

BARRIER - this is something in the nature of a line that stops forward movement. It could be a wall, an elevated freeway, a freeway, a busy street, a river, and so on.

BOULEVARD - a boulevard is like two streets, so that symbol shows two streets separated by notch marks.

BRIDGE - this is bridges over water, rivers, valleys and the like, not for under or overpasses.

CANAL - a canal is two lines filled with water.

CANYON - this is to symbolize the feeling that you're in a canyon when on a street. The feeling comes up often in New York.

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EMBANKMENT - this is the avenue symbol with a curled edge on the river side of the embankment

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EXPRESSWAY - See FREEWAY, also OVERPASS, UNDERPASS, and ELEVATED FREEWAY

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FREEWAY - is two lines filled with "x"s. For freeway OVERPASSES, UNDERPASSES, see OVERPASS, UNDERPASS. For elevated freeways see, ELEVATED FREEWAY.

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GATES - see WALLS

HORIZON LINE - this could be the edge of your map, could be prepared with hills, mountains and radio towers. Or it could be useless

LANES - this is a single straight line, very simple



OVERPASS - see UNDERPASS

PATH - see SIDEWALK

QUAI - see EMBANKMENT

RAILROAD - this looks like a railroad, two simple lines with short cross lines - tracks and ties. See also SUBWAY, STREETCAR.

RIVER - two simple lines with fish swimming in them. A CANAL is two simple lines with water in between.

ROAD - see STREET

ROWS OF - ... The following are rows of point symbols that can be simply joined together or repeated to make a line symbol. Thus a street lined with stores is a line sumbol of stores.

APARTMENTS

II II II BANKS

JJJJ BARS

TTT BENCHES

BILLBOARDS

XXXXXXX CROWDS

FLOWERS

SAR GARDENS

(G) (G) GAS STATIONS

GOVERNMENT BUILDINGS

AL AL AL GRASS

HOMES

HOTELS

OOO NIGHTCLUBS

TTT OUTDOOR CAFES

XXX PENSIONS

* * * RESTAURANTS

AAA SHOPS

595 SHOWROOMS

SIGNS

SKYSCRAPERS

SLOPES

STALLS

STORES

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TREES

VIEWS

VISTAS

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WAREHOUSES

人へんへ WATER

• • • • SIDEWALKS - the lowest level of movement channels is a dotted line.

STREAM - see CANAL, not RIVER

STREETS - a pair of single lines, the most common line symbol you'll be using.

STREETCAR - this is surface rail transportation which is not a railroad. It is for SUBWAY tracks when they surface

SUBWAY - this is the streetcar sumbol broken to indicate that its underground

UNDERGROUND - see SUBWAY



UNDERPASS - this could be when a road goes under another road, when a railroad goes under a road, or whatever

WALL - a wall is symbolized by a simple straight line with short cross lines at gates and at corners.

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WATERFRONT - the line of separation between land and water symbolized by a sketch of docks.

LINES - NEW WORDS

Here are some blank spaces to put any new symbols you may think of. Anything at all.

AREAS

There are very few unique area symbols. Most of the area symbols are composed by using point or line symbols over a bigger area. Some of these are illustrated below. We leave the invention of the others up to you.

COMMERCIAL AREAS - the way we symbolize a commercial area is by mixing together the lines symbols for stores (in the line section under ROWS OF) with some of the attribute symbols indicating quality. You would use the appropriate store and quality symbols.



DOCKS - this is a second case in which we've used a mixed bag of point and line symbols to represent an area. Here we've used the line symbol for WATERFRONT combined with the point symbols for WAREHOUSES and BOATS.



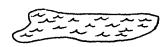
ENTERTAINMENT AREAS - this is composed entirely of point symbols except for one areal symbol. It's in the lower right hand corner and is the symbol for a GRID AREA.



GRID AREAS - as you'll see further on this is also the basic areal symbol for a RESIDENTIAL AREA. The use of it in this case indicates that the streets in the area all make perfect 90 degree, right angle corners with each other. Used in conjunction with other symbols it indicates, as in the case of ENTERTAINMENT AREAS, that the streets make a perfect grid.



INDUSTRIAL AREAS - here we've used a variety of point sumbols and the grid areal symbol again.



LAKES - and all other large bodies of water are symbolized by the point water symbol repeated to fill up an area.

MIXED AREAS - in this instance just create the appropriate mix of symbols to represent or capture the nature of the area.

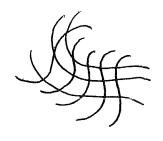
NON-GRID - this symbol is used to indicate that the streets in the area are not orderly, that they run every which confusing way. This symbol can fill an entire area or be used as the GRID symbol was used in the ENTERTAINMENT AREA above.

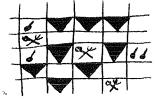
OFFICIAL AREAS - we used a grid symbol to fill the area pretty much and have sprinkled a number of the point symbols for GOVERNMENT BUILDINGS around. We've also added a number of restaurants and bars.

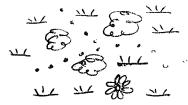
PARKS - scatter a lot of tree and grass and flower symbols around. If there are paths as well, show paths. And so on.

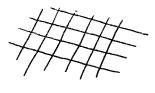
RESIDENTIAL AREA - the use of either the GRID AREA or NON-GRID AREA symbol with no other symbol indicates that the primary land use is RESIDENTIAL. The use of the GRID symbol indicates that it's residential and the street pattern is like a grid; the NON-GRID pattern alone indicates that it's residential but that the street pattern is confusing.

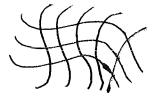
AREA SYMBOLS - NEW WORDS











ATTRIBUTES

These symbols are entirely different from the preceding point, line and area symbols, for two basic reasons: 1) These are symbols, not of places themselves, but of feelings you might have about places; in other words, attributes of places; 2) These symbols will be used to modify other symbols, and can be used in as many combinations as possible or necessary. Thus you could use one, three or even ten different symbols from the following to modify just one area or square or street. Furthermore, the attribute symbols may be used to modify each other as well. Thus, you may use the noise symbol and then modify that to indicate whether you liked the noise or not. Sometimes noise is appreciated; at other times it's a drag. With Environmental A you can say which!

ANCIENT - not necessarily old in years, but old in spirit, use a division sign.

BARRIER - see END

BUMPY - the road is very bumpy. Add a bumpy line to the road symbol.

CLEAN - it sparkled it was so clean. Use a broom.

- CONFUSING the outstanding attribute of the place was madhouse confusion. Use a giant question mark.
- COOL use a crescent moon if the place was cool, like shady parks, shady avenues, breezy, and so on.
- CONSTRICTING use a bunch of arrows pointing together for a place where you feel crushed.
- CROWDED things are so jammed together you feel like exploding. Use a stick of dynamite.
- CURVING the street, avenue, boulevard curves you don't know which way. Just use a curved line.
- DANGER when you feel hostility in the air, use a skull and crossbones.



DIRTY - the place was so dirty you didn't want to touch anything. Use a rat.



DOWNHILL - for a steep drop, use the slope sign on top of a road sign.



END - the end of an experience, a walk, a tour, a view, use the sketch of an open hand saying stop.



EMPTY - the square was deserted, the hotel empty. Use a circle with an arrow pointing away.



EXCLUSIVE - use the English pound sign for exclusive stores, bars, shops, restaurants.



EXPANSIVE - use a bunch of arrows pointing apart if the space in a place set you soaring free.



FALLING - the road runs downhill, use the slope sign, drawing it over the road symbol.



FANCY - use the English pound sign to indicate fancy instead of plain.



FAST-PACED - use two connected 1/8 notes to describe a scene always on the move, hectic, frenetic.



FLOW - use an arrow to indicate the direction and strength of flows, like people moving or traffic. The bigger, the stronger.



HIGH CLASS - use the English pound sign to indicate high value.



HOSTILITY - you feel you're intruding, use a skull and crossbones.





JOY - something about the place makes you happy, bursting with life. Use a smile.

LEISURELY PACED - use a half note to show that easy, slow pace of living that's so refreshing.

LITTER - litter was everywhere. Use an overflowing trash basket.

LOUD - use a crescendo sign to show how deafening a place was.

LOVED IT - you feel in love with the Plaza San Marcos, all the pigeons and color - use a smitten heart.

LOW CLASS - use the cent sign to indicate low class neighborhoods, districts, bars, restaurants.

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MIDDLE CLASS - use the dollar sign to indicate middle class neighborhoods or districts.

NEGATIVE - it doesn't impress you, you don't like it, use a minus sign.

NOW - this is for a place with the spirit of today, of now, the Pepsi generation. Use a multiplication sign.

ORDINARY - use the dollar sign for run of the mill stores, shops, neighborhoods, districts.

PAUSE - this place was the pause that refreshed. It might be quiet in a crazy city, the personal touch in a mechanic world, anyway use a comma to modify other symbols, or put them anywhere.

PERSONAL - this is when you have had a personal experience, probably emotional, and you don't want to explain.

Just put the place in parenthesis. Somebody was nice to you, whistled at you, spit at you. Use parenthesis. If not in parenthesis, the place will be regarded as having no personal connotations at all.

POOR - use the cent sign to indicate the absence of money.

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POSITIVE FEELING - it impresses you favorably, you like, add a plus sign.

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QUIET - use a diminuendo sign to indicate the hush of a leafy square, a cloister, the inside of a church.



REALLY LOVED IT - see LOVED IT.



RELAXING - see RESTFULNESS

RESTFULNESS - here you feel relaxed, restful. Use a closed sleeping eye.



RISING - the road rises sharply, use the slope sign.



SADNESS - the scene overwhelms you with a sad feeling in the pit of your stomach. Use a crying eye.



SMELL - the smell overwhelmed you, of flowers and sunlight or sweat and garbage. Use a profile of a nose and modify it with other symbols.



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SOUND - what impressed you about the place was the sound of it. Loud, noisy, or soft and quiet. Use an ear, modify with other symbols.



TASTE - you don't remember anything about the place, but the taste of fresh strawberries and cream. Use a mouth and modify it with other symbols.



TRAFFIC MOVEMENT - to indicate direction and strength, use an arrow. The bigger the arrow, the more powerful the flow.



UPHILL - the road rises up a steep hill. Use the slope symbol. The slope symbol goes over a road symbol.

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UPPER CLASS - use the English pound sign for upper class neighborhoods or stores.



WEALTHY - use the English pound sign to indicate that lots of money feeling.



WOW - a feeling of wow, terrific, demands an exclamation
 point.



ZIGZAG - the road cuts this way and that, too confusing to draw. Just zigzag the road.