

AN URBAN SERVICE FOR CHILDREN
BASED ON ANALYSIS OF
CAMBRIDGEPORT BOYS' CONCEPTION AND USE OF THE CITY

by

MICHAEL SOUTHWORTH

B.A., University of Minnesota
(1962)
B.Arch., University of Minnesota
(1965)
M.C.P., Massachusetts Institute of Technology
(1967)

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF
PHILOSOPHY

at the

MASSACHUSETTS INSTITUTE OF
TECHNOLOGY

September 1970

Signature of Author ✓ _____
Department of Urban Studies and Planning
August 24, 1970

Certified by _____
Thesis Supervisor

Accepted by _____
Chairman, Departmental Committee on Graduate Students



AN URBAN SERVICE FOR CHILDREN
BASED ON ANALYSIS OF
CAMBRIDGEPORT BOYS' CONCEPTION AND USE OF THE CITY

Michael Southworth

Submitted to the Department of Urban Studies and Planning
on August 24, 1970 in partial fulfillment of the require-
ments for the degree of Doctor of Philosophy.

ABSTRACT

The study investigates children's conception and use of the city and possibilities for helping children learn from and use the city.

Research focusses on city use, city knowledge, and environmental values of twenty-six ten to twelve year old Cambridgeport boys of two social groups. A variety of data sources are used: intensive interviews, photo surveys of the city by subjects, trip plans, maps drawn by subjects, tests of map comprehension, place recognition and recall interviews, and city diaries.

Analysis of children's city use includes discussion of their general travel patterns, attitudes of children and parents toward city travel, and detailed discussion of children's use of numerous place types throughout the city. Analysis of children's city knowledge reports results of methods testing their knowledge of places throughout the city, their ability to both draw and use city maps, and the relations between city knowledge and extent of city experience. Discussion of children's environmental values and needs includes analysis of children's form values, activity values, and social values.

Several problems in children's city experience are identified that urban policy might remedy. A new organization--an Urban Service for Children--is proposed to help expose children to the city, to make the city more fun and more safe for children, and to develop general awareness of the urban environment and methods for improving it. Benefits and precedents of educative environments are reviewed and numerous specific suggestions are made for promoting travel and safety in the city and for developing new educative city settings, amplifiers of environment, and city activities.

Thesis Supervisor: Kevin Lynch
Title: Professor of City Planning

ACKNOWLEDGEMENTS

This study was made possible through grants from both the National Science Foundation and the National Endowment for the Arts and through a National Defense Education Act Fellowship.

Several people have been important in various stages of the investigation. First, I am grateful to the twenty-eight Cambridgeport boys who agreed to work on the project and without whose experience I would still know little of the lives of city children. I am also indebted to Father Butler of Blessed Sacrament Church in Cambridgeport for his generous loan of workspace for us during the summer of 1969.

Valuable assistance has been provided by several assistants: Lois Stern located most of the subjects and assisted in much of the data collection; Lynn Balster and Mary Breuer helped in the analysis phase; and Rita Rubenstein Southworth typed the manuscript. In addition, Harriet Older and Beverly Ratajak offered assistance for brief periods.

Numerous MIT staff members have contributed helpful suggestions: Andrea Cousins and Professors Karl Linn, William Porter, and Mary Potter. I am especially grateful to Stephen Carr, Kevin Lynch, and Lloyd Rodwin. Although I became acquainted with Professor Rodwin after the thesis was well along, the idea of creating an Urban Service for Children was sparked by him and many of the ideas were developed in conversation with him. Professors Carr and Lynch were key influences in selection of the thesis topic and have been helpful advisors throughout the project; together they have been important in making these five years at MIT among the most productive years I have had.

Michael Southworth
23 July 1970

CONTENTS

Abstract,	2
Acknowledgements,	3
List of Tables,	8
List of Maps and Graphs,	10
List of Photographs,	10

PART I: BENEFITS AND PRECEDENTS OF THE EDUCATIVE CITY----11

A. THE BENEFITS OF AN URBAN SERVICE FOR CHILDREN---11

1. City as School, 12
2. City as Playground, 15
3. Safe Streets, 15
4. Urban Change, 16

B. PRECEDENTS FOR EDUCATION BY ENVIRONMENT-----17

1. Natural Learning, 17
2. Designed Learning, 20
 - a. Environmental Form as Educator, 21
 - b. Amplifiers of Environment, 25
 - c. Participation in the Environment, 27
 - d. Combinations of Form, Amplifiers, and Participation, 30
 - e. Evaluation of Approaches to Designed Learning, 32

PART II: CAMBRIDGEPORT BOYS' CONCEPTION AND USE OF THE CITY--35

A. PURPOSES AND METHODS OF THE ANALYSIS-----35

B. CHILDREN'S CITY USE-----41

1. General Travel Patterns, 42
2. Attitudes of Children and Parents Toward Travel in the City, 52
3. Relations Between Travel and General Independence, 59
4. How Places Are Used, 60
 - a. Open Space, 69
 - i. Parks and Playgrounds, 60
 - ii. Water and Natural Areas, 75
 - iii. Wastelands, 81

- b. Transportation, 45
 - i. Streets, 95
 - ii. Bike Areas, 96
 - c. Commerce, 99
 - i. Corner Stores, 61
 - ii. Shopping Centers, 102
 - d. Entertainment and Recreation, 105
 - e. Institutions, 108
 - f. Landmarks, Monuments, and Historic places, 113
 - g. Industry, 116
5. Summary of Children's Use of City Places, 117
- C. CHILDREN'S CITY KNOWLEDGE-----122
- 1. Knowledge of Places in the City, 122
 - a. Place Recall, 122
 - b. Place Recognition, 132
 - c. Relations Between City Knowledge and Travel, 138
 - 2. Drawing and Using City Maps, 139
 - a. Map Representations of the Neighborhood, 139
 - b. Relations between City Travel and Map Structure, 147
 - c. Map Usage, 148
 - d. Relations between Map Drawing, Map Usage, and Travel, 155
 - 3. Summary of Children's City Knowledge, 156
- D. CHILDREN'S ENVIRONMENTAL VALUES AND NEEDS-----158
- 1. Form Values, 158
 - a. Cleanliness and Order, 159
 - b. Safety of the Physical Environment, 161
 - c. Water and Other Natural Elements, 163
 - d. Color, 165
 - e. Newness, 166
 - f. Form Symbolism, Ornateness, and Height, 166
 - 2. Activity Values, 169
 - a. Intense Activity, 169
 - b. Variety of Activity, 171

3.	Social Values, 173	
a.	Security of the Social Environment, 173	
b.	Group Orientation, 175	
4.	Summary of Environmental Values, 177	
E.	IMPLICATIONS OF THE RESEARCH FOR THE DESIGN OF EDUCATIVE CITIES-----	180
1.	Major Problems in Kids' City Experience, 180	
2.	Limitations of the Research Findings, 181	
3.	Research Needs, 182	
	<u>PART III: POSSIBILITIES FOR MAKING CITIES EDUCATIVE-----</u>	<u>183</u>
A.	CRITICAL ISSUES-----	183
B.	ONE POSSIBILITY: AN URBAN SERVICE FOR CHILDREN----	184
1.	The Functions, 185	
a.	Travel, 186	
b.	Safety, 193	
c.	Educative Settings, 194	
d.	Amplifiers of Environment, 199	
i.	Exposure of the City, 199	
ii.	Place-Free Information, 206	
e.	City Activities, 207	
2.	A Structure and Strategy of Development, 211	
3.	The Risks, 216	
	<u>APPENDIX I: THE RESEARCH METHODS-----</u>	<u>219</u>
A.	THE SUBJECTS-----	219
1.	Who the Subjects Were, 219	
2.	How We Obtained Subjects, 223	
3.	Ideas for Involving Children in Research, 225	
B.	THE METHODS-----	229
1.	Classification and Value of Unfamiliar Environments, 235	

2. Interview and Map, 246
3. Photo Survey, 268
4. Individual Photo Survey Discussion, 268
5. Group Photo Survey Discussion, 268
6. Trip Planning, 277
7. City Trips, 280
8. City Knowledge: Place Recall, 288
9. City Knowledge: Recognition of Places
in the Cambridge/Boston Scene, 293
10. Map Comprehension, 304
11. Vineland "Social Maturity" Scale, 312
12. City Diaries, 314
13. Teen Informants, 318
14. Parent Interview, 319

APPENDIX II-----323

- A. PLACE TYPE CLASSIFICATION-----323
- B. COMPLETE LIST OF PLACES USED AND MENTIONED
BY SUBJECTS-----325
- C. CLASSIFICATION AND FREQUENCY OF ACTIVITY
MENTIONS IN SUBJECT INTERVIEWS-----343
- D. CLASSIFICATION OF PLACE TYPES FOR CITY
KNOWLEDGE: PLACE RECALL-----350
- E. NEIGHBORHOOD AND CITY MAPS DRAWN BY
SUBJECTS-----352
- F. INVENTORY OF SUBJECT COMMENTS ON SOCIAL
AND PHYSICAL DANGER-----374

Footnotes, 391
Selected References, 392
Biographical Note, 393

LIST OF TABLES

1.	List of Research Methods-----	37,38
2.	Average Number of City Places Used-----	44
3.	Average Number of Frequently and Infrequently Used Places-----	44
4.	Average Total Distance from Home of "Hangout" and "Use" Places-----	45
5.	Size of Total Territory Mapped-----	49
6.	Size of Neighborhood Territory-----	49
7.	Average Age at which Parents Allow Children to Travel in Neighborhood and City-----	55
8.	Relations Between Travel and General Independence-----	59
9.	Average Number of Places Known by Each Subject-----	123
10.	Knowledge of Places Differing in Social, Form, and Activity Character-----	123
11.	Knowledge of Places with Differing Activity Character-----	124
12.	Average Number of Places Known for Each Place Type by Each Subject-----	126
13.	General Place Types Subjects Would Like to Know More About-----	128
14.	Preference for General Place Types-----	128
15.	Specific Place Types Subjects Would Like to Know More About-----	130
16.	Places Subjects Would Like to Learn More About-----	131
17.	Places Subjects Would Least Like to Learn About-----	132
18.	Average Number of Places Recognized-----	133
19.	Recognition and General Place Type-----	134
20.	Recognition of Symbolic and Non-Symbolic Form-----	135

21.	Recognition and General Place Type: Local and City---	135
22.	Recognition and Specific Place Type-----	136
23.	Relations Between City Knowledge and Travel: Place Recall-----	138
24.	Relations Between City Knowledge and Travel: Place Recognition-----	139
25.	Map Structure-Accuracy-----	140
26.	Average Accuracy and Structure Ratings-----	143
27.	Map Territory and Structure-Accuracy-----	143
28.	Map Territory, Accuracy, and Structure-----	144
29.	Elements Shown on Maps-----	145
30.	Map Territory and Number of Elements-----	146
31.	Map Structure-Accuracy and Number of Elements-----	146
32.	Relations Between City Travel (Without Parents) and Map Structure-Accuracy-----	147
33.	Matching Maps and Views of Places-----	151
34.	Map Representations Drawn by Subjects from Scenes of Places-----	151
35.	Destinations and Routes-----	153
36.	Relations Between Structure-Accuracy Ratings of Subjects' City Maps and Map Comprehension Scores-----	155
37.	Recognition: Preference and General Place Type-----	167
38.	Recognition: Familiarity and Preference-----	179

LIST OF MAPS AND GRAPHS

1. Map of Cambridgeport-----	39
2. Graphs of Place Use by Zone-----	46
3. Graphs of Place Use Inside and Outside the Neighborhood-----	47
4. Composite Map of Subjects' Neighborhood Territories	48
5. Graph of Place Type and Place Use: "Hangout" and "Use" Places-----	61
6. Graph of Place Type and Place Use: "Mention" and "Reference" Places-----	64
7. Graph of Number of Places Photographed for Each Place Type-----	66
8. Map of Places Photographed-----	67
9. Maps of Place Use: "Hangout" and "Use" Places-----	70
10. Illustrative Maps of the City Drawn by Subjects-	141-42
11. Styles of Map Representation-----	149

LIST OF PHOTOGRAPHS OF CITY BY SUBJECTS

1. Parks and Playgrounds-----	75
2. Water Areas-----	81
3. Wastelands-----	90
4. Vehicles and Bike Road-----	100
5. Corner Stores, Eating Places, and Shopping Centers	105
6. Entertainment and Recreation-----	108
7. Institutions-----	112
8. Landmarks-----	115
9. Industries-----	117

PART I: BENEFITS AND PRECEDENTS OF THE EDUCATIVE CITY

PART I: BENEFITS AND PRECEDENTS OF THE EDUCATIVE CITY

How might urban policy help children learn from and use the city? This question has been one of the two organizing themes for this study. The second theme is more basic: How do children conceive of and use the city? The presentation consists of three parts: Part I discusses the expected benefits of a possible new organization for promoting learning in the city and reviews some precedents for educative environments; Part II reports empirical research designed to help understand what the specific functions of such an organization might be; and Part III suggests a possible program and structure for the organization. Details of the research methods and results are presented in the Appendices.

A. THE BENEFITS OF AN URBAN SERVICE FOR CHILDREN

In 1970 over one fourth of the United States population is less than fourteen years old and almost one fifth is between the ages of five and thirteen. Most of these children are living in urban areas and will spend their lives there. Public environmental policy should represent the interests of this major social group, particularly since childhood is known to be a critical period of growth. Along with the social environment, the physical setting of childhood is likely to shape later development.

Of the several possible approaches to the problem of making cities more rewarding to children, one will be investigated here--an Urban Service for Children. This would be a new type of organization designed to help children learn from and use the city. It would deal not only with the physical environment, but with information and activity programs related to the physical environment. Although an Urban Service might ultimately serve people of all ages, we have chosen to focus on children in this study, both to make the research task manageable and because children are a crucial group that has received little attention in urban policy. Benefits to children of such a Service might be at least fourfold:

1. It could further the growth and development of children and would compensate for many of the limitations of formal education.
2. It could make the city--its places, activities, and transit system--more attractive and fun for children.
3. It could make the city more safe for children to travel in.
4. It could develop children's environmental awareness and help them become actors in environmental change.

Following a detailed discussion of the expected benefits, some precedents for educative environments will be reviewed.

1. CITY AS SCHOOL

Cities are microcosms of the world. At the very least, an Urban Service would help children learn how to make their way about in that world and to discover its life. Few would dispute the value of this in itself.

It is likely, however, that the consequences of such exposure would be deeper. Psychologists have already suggested how important varied experience in the early years might be ¹ and common sense supports many of these early findings. Valued traits like independence and ability to deal with new situations are likely to be indirect results if an Urban Service were to encourage independent city travel and other activities for children. In travelling to unfamiliar places children test new ways of thinking and acting, particularly when they are free of direct adult supervision. Besides collecting information about the world, a child learns about himself and discovers models for his own life. To be sure, the media--television especially--already confront children with a barrage of new images, but they do not substitute for first-hand experience. Being there, doing it yourself teaches how it really feels--the missing ingredient in learning from books, pictures, or teachers. Bruner contends, in addition, that exposure to moral drama is lacking in packaged education, in the media, and in suburban environments. ² Children living in urban slums or suburbs might be benefitted in particular, for an Urban Service could do much to compensate for lack of variety or lack of freedom in the local environment by promoting travel to other places. Might such a program reduce the hold of

the ghetto over low income residents by encouraging children to find out about and use the larger city? Even middle class children in the central city would be benefitted. Although the central city has plentiful variety, it is often confusing to a child--there is too much to know and to do. Fear of strangers and traffic place further restrictions on a city child's life.

An Urban Service would also compensate for many of the limitations of formal education. Most children are bored with school and are not convinced of its value. Individual interests of children are subverted by the demand to learn a body of official knowledge that is disconnected from the world they know. Spontaneity is dulled by programmed learning, in which there are "right" and "wrong" answers and a definite sequence to be followed. How much real learning happens in school? Even now, it is likely that most children get the best education outside school--on the street, in the corner store, along the tracks. An Urban Service would heighten opportunities for learning outside the school by taking into account a child's natural interest in action; it would promote learning in places where kids like to go, doing what they like to do. A child could learn about that which interested him. Learning would be firsthand, involving, personal, and fun. This need not mean a loss of content, of structure, or even of theory, as the discussion of the Parkway Program and other experiments

presented later will show.

2. CITY AS PLAYGROUND

Where children play they also learn. Along with providing learning, an Urban Service would make the city more fun for children, both by providing new activities and by designing parts of the city especially for children. In an adult-dominated society, few parts of the urban scene have been created for the pleasure of children. The exception is playgrounds, but these most often are not really part of the city but are isolated enclaves designed to keep children out of the way. By making the city the playground--and the playground the city--it is far more likely that a child can learn from his surroundings; if he has fun in the city, he is also more attentive and receptive to other parts of the setting. Boredom--a major problem in children's lives--might also be overcome by giving children new things to do in the city.

3. SAFE STREETS

City streets, especially in strange areas, are often feared by children. Almost every urban child has stories of stolen bikes, "jumpings" by teenagers in the subways, allowances surrendered at knifepoint--in fact, this was a major theme in the experience of Cambridgeport boys as will be seen in Part II. Children are thus restricted from doing what they are quite able to do; adults often insist on

chaperoning their children, thus extending childhood into adolescence. Adults who witness incidents but who ignore them or refuse to help make matters worse. An Urban Service could improve the safety of streets for kids. Indeed this will be necessary to make the city serve any educative function for children.

4. URBAN CHANGE

Children should be involved in environmental changes that will affect them. An Urban Service would encourage children to think about their city needs and values and to then work to improve the situation. In fact, children would be participants in developing the activities of the Service itself; it would function as a training ground for environmental management. By sensitizing children to environment and the processes of change at an early age, they will make more responsible decisions than their parents have made. The Service would expose children to ongoing changes in the city: the controversies, the process, the effects of the change. Examples of both successes and failures would be highlighted. Most important, places where children themselves can make changes would be sought and would provide the best education in environmental management.

Specific methods for achieving these four benefits are discussed in Part III.

B. PRECEDENTS FOR EDUCATION BY ENVIRONMENT

Today environmental education is almost a slogan, yet little is said of educative environment. Emphasis has been on learning about the city rather than from the city. This bias is understandable for there seem to be few real precedents for consciously designed large-scale educative environments.

1. NATURAL LEARNING

Certainly parts of our cities are educative now, but by accident rather than by design. In fact learning is likely to happen anywhere that environment satisfies an individual's purpose. Most such places would not normally be considered learning environments, however, for they do not fit the institutional stereotype of what learning is.

For example, mastery of the subway or bus system is an education in itself. Children who attempt this on their own must first learn how the system is organized so that they can make connections; this leads naturally to a better idea of how the city is structured and what its contents are. Travel requires him to plan not only his route, but also his finances. He is required to read signs and often maps. Public transit offers social education as well. A child is likely to encounter a much wider cross-section of society on the subway or bus than in the daily round of neighborhood

and school life. Although he may not get involved with the strangers on the subway, he at least encounters people who are much different than himself. Such travel also helps develop a child's own environmental values by exposing him to the enormous physical variety of the city. For example, by experiencing other neighborhoods, he soon realizes there are choices far different from his own neighborhood or house, some of which might become his ideals. Travel by bicycle is even more "educative" in many ways, though it reduces social contact and may limit his territory. On bicycle a child not only plans his own route, but he is master of the vehicle and is completely responsible for himself. In addition, he has closer contact with the environment around him; he can see, hear, smell more of the surroundings and can stop when a place attracts him.

Numerous individual settings are also natural "teachers". In an open market a child can encounter both strange and familiar products along with people of all kinds. Indeed, the whole process of marketing--from producer to consumer--is open to view on the street. After a few purchases he develops a keen sense for a good buy--a

skill supermarkets fail to nurture. Ethnic areas, like Chinese and Italian neighborhoods, expose traditional customs, food, and language--a child can get a glimpse of what it might be like to live somewhere else in the world. Windows alone can be fascinating--he might see newspapers coming off the press, doughnuts being made, or computers computing. Airports, train stations, and water ports offer special excitement, not only because of the human fascination with movement and sheer bustle, but because of the beauty and power of the vehicles. Water ports in particular are thought-provoking and fun for a child: water in itself is evocative, along with the variety of boats, cargo activity, fishing, or seafood restaurants. Urban wastelands too can provide learning as well as fun. Along the railroad tracks children often find room to make their own places or to explore strange and unclaimed territory. Children also learn from city signs: new words, the names of places, or how to interpret symbols like traffic lights, uniforms, or sirens. Through city experience the meanings of implicit signs like broken windows or cobblestone streets are also learned. Still other natural occasions for learning are those points in cities where panoramic views of the cityscape are offered. On hills, water edges, or building tops children frequently take a moment to fit the pieces together, to find familiar places, or simply to enjoy the scene.

Although the city offers almost limitless opportunities for natural learning, places could be made far more accessible and attractive to children. Chapter II will report children's experience in many of these places in considerable detail and Chapter III will offer suggestions for enhancing possibilities for learning in them.

2. DESIGNED LEARNING

Precedents for large-scale environments that have been consciously made for learning are few and almost none are for children. The prototypes we have found are only partial, for each focuses on but one or two aspects of the problem and many are oriented toward natural rather than urban environments. A brief survey is useful, however, to give a suggestion of the possibilities and dangers. Precedents seem to be of four types, each of which reflects a different view of what makes environment "educative":

- a. ENVIRONMENTAL FORM: The physical environment itself is the educator and little attention is given to programming the activities of the observer.
- b. AMPLIFIERS OF THE ENVIRONMENT: Amplifiers such as information about the environment receive most emphasis and mediate between the observer and the setting.
- c. PARTICIPATION IN THE ENVIRONMENT: Activities of people in the environment are given greatest attention and the form of the environment itself is less critical.
- d. COMBINATIONS OF FORM, AMPLIFIERS, AND PARTICIPATION

a. ENVIRONMENTAL FORM AS EDUCATOR. Open air museums of Europe and the U. S. are the clearest expression of the form approach to educative environment. Such museums are particularly numerous in Scandinavia; Skansen and Den Gamble By are among the best known. In the U. S. the best examples are perhaps Columbia in California, Old Sturbridge Village in Massachusetts, Burton's Tropico Gold Mine in Southern California, Detroit's Greenfield Village, and of course Colonial Williamsburg. Such museums have usually been restorations or reconstructions of historic villages or farm groupings.

Skansen, in Stockholm was opened in 1891 with the intention of giving a picture of the whole country in a relatively small area. Containing over seventy structures from throughout Sweden, it includes old farms, seventeenth and eighteenth century town houses, eight authentic-cuisine restaurants, and several craft shops. Entertainment is always present; you may hear concerts played on old instruments, join in folk dancing and singing, or watch the potter and glass blower at work. Other features include windmills introduced from Holland, an ancient inn, rune stones dating from the eleventh century, and even a Lapp camp, which is inhabited by a Lapp family in summertime.

Completely different from other European open air museums is the reconstructed Lake Dwellers community on Lake Constance

in Germany. The village is built on piles on the edge of the lake and is based on remains found in the lake dating from about 2200 BC. In Aarhus, Denmark, Den Gamle By ("the Old Town") is another exceptional open air museum because all fifty of its buildings are town houses--not farms-- brought from every region of the country. The narrow streets, lined by sixteenth century half-timber houses and shops with unique picture signs suggest to the visitor what a town might have been like four hundred years ago.

Although all of the outdoor museums fascinate children, one of the most delightful for them (as well as adults) is Madurodam, the miniature city near Amsterdam. Referred to as "the smallest town in the world", it is a meticulous scale model (1:25) of a typical Dutch town, complete with historic and modern buildings, a river, a busy seaport and airport, a barrel organ and brass band, and 44,000 miniature lights that are switched on at night. A two-mile pedestrian way meanders through the town, allowing visitors to explore its parts.

In the U. S. the California Goldrush town of Columbia, located in the Sierra foothills, is an example of an open air museum that is still a living community. Called "gem of the southern mines", this town had a dazzling but brief period of prosperity before its gold mines were depleted in 1860. Its appealing red brick and iron shuttered

buildings bordered by uncurbed streets are now protected as an historic park, although the town still functions. Here one can sit in on legal proceedings in the old town hall, use the original post office, shop in a real general store, or square dance at the old saloon; the more adventurous can pan gold at Matelot Gulch or ride a stage coach through the hills.

A different view of past American life is given in Old Sturbridge Village, designed to depict rural New England life from 1790 to 1842. This was during the post-Revolution depression when self-sufficient villages dotted the countryside. Twenty-five years ago several authentic buildings were moved to the site from other parts of New England. The Village includes a small farm, a one-room schoolhouse, and a woods, as well as a tinsmith, cabinet maker, potter, pewterer, and bootmaker who demonstrate their crafts. Oxen plow the fields, waterpower turns the stones in a grist mill, and candles provide the light. Its impact is not only the architecture, but many small things: the sound of water tumbling from the wooden wheel at the mill, the smell of steaming apple pie from fireplace bake ovens, or the pleasant absence of cars.

It seems characteristic of the outdoor museums to isolate themselves from today's city. A proposal which uses the form of the city itself to teach its residents about the

city is that put forth by the designers of Ciudad Guayana, the new city in Venezuela.³ Here major public centers--government, cultural, business, medical--are to be located in prominent positions, connected by a major boulevard, thus exposing travellers to the centers as well as to other features of the landscape such as the hills and the Caroni River. This idea is not new. Haussmann organized the public places of Paris into a legible whole, as did Pope Sixtus V for Rome. In this century we can site Chandigarh, Brasilia, and Boston's "capital web" proposal as attempts to use the form of the city to inform the public of the city's institutions, sometimes of its power. Though designers perhaps did not use the word "educative" in describing these proposals, the intent seems clear.

A final example of attempts at using the form of the real city for education is illustrated in the historic preservation programs of the U. S. and other countries. History is regarded as one of the few legitimate educational functions of the living city. Buildings and sometimes districts are retained in varying degrees of historic authenticity. These are usually unconvincing. Boston's Beacon Hill, though called an historic district, tolerates numerous jarring anachronisms: cars, macadam, sidewalks lined with plastic trash cans, tv antennae. A visitor who walks its streets to get a sense of what things might have been like one hundred years ago must have a vivid imagination.

b. AMPLIFIERS OF ENVIRONMENT. Amplifiers of environment are a far more common technique for making environment educative than is form of the environment. The environment itself is not manipulated, but rather messages within the environment. Most often amplifiers are in the form of words or pictures. Historic or commemorative plaques are the most common and dull examples. Boston's Freedom Trail is an extension of the commemorative plaque; a marked path through the historic center of Boston attempts to help visitors discover historic Boston. Main problems have been that the path is too long and points along it have not been made much more interesting than the conventional historic plaque. Other examples of amplifiers are the guided bus tours with commentary on passing sights that are available in most cities or the special tours provided through industrial areas like Detroit's River Rouge plant and Chicago's stockyards. Likewise, public information is sometimes presented at construction sites: color of hardhat identifies a worker's trade, slide shows or information dispensing machines explain the construction processes, peepholes permit views to activity behind the construction wall, or models and pictures show expected results. Still other examples are observation platforms atop high buildings, or windows that are designed to allow the public to see a process that may interest them, as in a bottling company or newspaper plant. Novel examples of amplifiers are the picture narratives frequent in Europe that are painted on exterior walls to depict an important past event or place.

These commonly depict an earlier structure or important event on the site. Friezes and street sculpture often have a similar function, though the themes are usually religious or political rather than environmental; nevertheless they use the public environment to convey the message. If light and sound are viewed as information, then the "Son et Lumiere" events of Paris and other cities illustrate another possibility. Here sounds and lights in motion are used to identify important elements in the nightscape and to reenact or evoke the mood of some event, often historic.

But perhaps the most germane example is Boston's recent Signs and Lights project, an experimental outdoor information center for pedestrians.⁴ The center was designed as a prototype for a citywide network of district centers. Located near Park Square--a district containing hotels, bus terminals, entertainment, and shops--the aim was to enable pedestrians, especially visitors, to make better use of the tremendous variety of activity available in that section of Boston. The center gave diverse information about places within easy walking distance, and about Boston's physical organization, history, and culture. Several media relayed the information in both useful and entertaining ways: slides, films, and sounds presented varying images of Boston; large picture maps of the local area accompanied by revolving directories oriented visitors to the surrounding

area; recorded messages reported daily events; teletype printers gave instant news; and a computer-like machine printed out answers on a variety of city-related questions. Besides giving the public a new view of the city, the center provided a pleasant setting in a grey area for people to gather and to pass the time of day.

c. PARTICIPATION IN THE ENVIRONMENT. Several activity programs have been developed by the U. S. National Park Service to increase public awareness of the natural environment. One such program was the "Summer in the Parks Program" tested in Washington, D. C. during summer 1968.⁵ Through "Surprise Trips" the program attempted to acquaint urban youth with unfamiliar open space areas outside their neighborhoods. Each day more than 1000 kids were bussed from pickup points such as recreation centers or block camps to unknown places (hence the name "Surprise Trips"). Each site had a different program built around a unique feature of the park. In some instances the Park Service staffed the site but in many others, activities were directed by Boy Scouts, Girl Scouts, YMCA, YWCA, or Big Brothers. One day kids floated a raft to an island with tree houses and on another they went fishing in the C & O canal, learning how to fish and how to clean and cook their catch. Other trips involved hay rides and apple picking on a farm, horseback riding, and boat trips. Happily, the impact of the program did not stop with the trips, for

many children told their parents about the parks and returned on other days with their entire family. A similar experiment was sponsored last year by the Boston Gas Company: nearly 3,000 children were taken on one-hour cruises of the Boston Harbor. Children could see for themselves where the Boston Teaparty took place, sail alongside "Old Ironsides," and skirt the many islands dotting the Harbor. Along with places from the past, they saw ships of the U. S. Navy and Coast Guard, freighters, fishing fleets, and tugs.

Another aspect of "Summer in the Parks" was a variety of free city-wide outdoor entertainment--puppet shows, children's theaters, nature vans, dances, art workshops, exhibitions and instruction in sports, noon-time entertainment downtown, concerts, the National Capitol Open bicycle races, an Indian pow-wow, and city wide talent shows. For each event talented local designers created settings and props to give the park a mood appropriate to the occasion. These activities were more recreational than educational but they did much to make the city more fun and brought people together. Summerthing has served Boston in a similar way with activities including Moviebus, a mobile theater, craftsmobiles, outdoor ballet performances, a plantmobile, and opera lecture-demonstrations.

A second National Park Service outdoor education program is NEED, the National Environmental Education Development Program.⁶ NEED works through school curriculums to relate outdoor experiences to subjects taught in the school. The general aim is to foster in children an "appreciative and critical awareness of their environment, particularly an understanding of the interactions of natural and social processes as illustrated in National Park areas." The core of the program is a series of week-long trips to outdoor laboratories, which then become the focus for later classroom work. For example, in a pilot test fifth grade children of P. S. 157 in the Bronx were taken to Fire Island National Seashore for a week where they star gazed, planted beach grass, fed birds, and explored the surroundings.

Weaknesses of the NPS programs for our purpose are their emphasis on the natural environment almost to the exclusion of the urban and their limitation to areas administered by the Park Service, which are usually distant from the city. In contrast to these, Philadelphia's Parkway Program works exclusively in the city. This is Philadelphia's new experimental high school. Based on the Leistershire approach, the Program's philosophy is that people learn best when their education is self-directed and when it involves them in the world around. The city acts as both campus and curriculum for five hundred high school students. Students travel around the city from one source of learning to another,

for there is no school house. Each student creates his own curriculum--learning to choose is part of the education. This also requires students to find resources of the city that can be of use to him. Given the city as it is, students are encouraged to develop and apply their own skills toward making the city more useful and more responsive to their needs. Several of the teachers are laymen or are provided by business or industry. Zoology and anthropology, for instance, are taught at the Philadelphia Zoo, biology at the Academy of Natural Sciences, statistics and business management at the Insurance Company of North America, law enforcement at the Police Department, industrial arts at an auto repair shop, and art at the art museum. Student response to the school has been overwhelmingly favorable. In fact one third of the students had planned to drop out of school before entering the Program, but only one actually left during the first year. The major limitation of the prototype may be that it could not become universal, for it is doubtful that there are enough resources in the city to take on the heavy student load without sacrificing their main functions.

d. COMBINATIONS OF FORM, AMPLIFIERS, AND PARTICIPATION

The Park Service's management policies for National Parks and Monuments illustrate a combination of techniques for helping visitors appreciate natural and historic places. ⁷

Through its efforts 277 natural and historic areas have been protected--a total area of over thirty million acres. Areas included are as diverse as Grand Canyon, Everglades, Mesa Verde, and Gettysburg. But besides preserving the landscape, the Service has provided information and services to help the public learn from and enjoy the areas. Frequent techniques have been interpretive trails, wayside exhibits, films, and in some cases revivals of historic crafts or ceremonies. Even more important has been its staff of applied naturalists who serve as guides and informed conversationalists, as well as experts in resource management. Although the landmark plaque or trailside exhibit may lack imagination or style, the program has met with enormous popular success--the parks received 175 million visitors in the last year alone.

The final prototype is far afield from those already discussed. In Communist China entire cities have been made "educative", but in a unique way. ⁸ Armies of workers proclaim the political slogans of the day through every possible medium, especially during campaign periods. Thousands of trained storytellers walk the streets of both cities and villages telling about popular heroes--heroes that are sometimes real, sometimes invented, sometimes variations of characters in old myths. The radio constantly blares on street corners. It is broadcast on busses, trains--even in pullman sleepers and dining cars--to turn it off is

against the law. Many of the propaganda themes are turned into ballads or popular songs that are sung on the streets. Others are molded into "living newspaper" plays or skits at street corners. Mobile exhibitions with narrators travel through the city and streets are decorated with large propaganda paintings, cartoons, and posters. One of the most popular means of expression has been "Tatzepao" ("paper of big letters and bold characters"). These are large posters placed throughout the city for collecting opinions of the populace. During campaign periods, these information programs are accompanied by report meetings, study sessions, discussion groups, mass rallies, and parade demonstrations. There is no escape from this educative environment, nor from its messages. It illustrates clearly how educative environment could become a nightmare if mismanaged.

e. EVALUATION OF APPROACHES TO DESIGNED LEARNING. Each of the precedents discussed has its limitations and advantages. The form approach interferes least with personal action. However, it may never catch the mind of the person. Architectural form itself is normally not educative unless it is exotic and charged with meaning--it needs amplifiers to explain, to involve. If it is necessary to communicate a definite idea, the least effective method is probably through form alone, since its ambiguity makes it subject

to countless interpretations. Environmental form on the other hand usually has the advantage of longer psychological durability--because of its complexity it does not become as monotonous as repeated verbal or pictorial messages. However, form approaches are expensive and also tend to become rigid; they are resistant to change in order to preserve the original message. The results often seem phoney like a Disneyland or out of place with the times or surroundings, like the museum villages. They tend to become isolated and lack life of their own.

Environmental amplifiers have the advantage of being perhaps the most economical of the three alternatives, for they do not manipulate the environment itself and require minimal staff. They can also present an idea clearly to a large audience and can add a dimension lacking in the form itself. However, messages are difficult to make compelling, involving, especially with repeated encounters. They become tiresome and may invade privacy.

Participation is probably the most involving and ultimately the most productive route to the educative city. But a method as potent as participation is also potentially the most dangerous of the three approaches--as in China--if its activities are dictated by a group with selfish interests. More than any other technique it is likely to interfere with personal privacy since it requires organization of

individual and group activities--it is more like school as we know it than are the other techniques. Personal expression of participants may be suppressed because of the likely emphasis on group activity (each participant could not have a tutor). Activity programs would also require more staffing than other techniques.

Perhaps the most striking characteristic of precedents for educative city environments is that there are so few, particularly for children. In the next chapter we will examine in detail several facets of children's city experience, and in the concluding chapter we will return to the design of educative environments, but with suggestions for children.

PART II: CAMBRIDGEPORT BOYS' CONCEPTION AND USE OF THE CITY

PART II. CAMBRIDGEPORT BOYS' CONCEPTION AND USE OF THE CITY

A. PURPOSES AND METHODS OF THE ANALYSIS

Learning is most likely to happen in places that attract children. Primary purposes of the research have been to identify the types of places and activities around which new kinds of learning might be developed by an Urban Service for Children and to better understand what the functions of such a Service might be. This requires investigation of the extent of children's city travel and knowledge, the qualities of places and activities that are attractive to kids, and the problems in their current city experience. Secondary purposes have been (1) to investigate relationships between kids' city experience and their city knowledge, environmental values, general independence, and social class and (2) to test several research methods for investigating children's city conception and use.

Research activities revolved about three related themes, which also are the themes of this presentation: childrens' use, knowledge, and evaluations of city environments.

A. CITY USE

1. How much do children use places in the neighborhood and in the city? How do they travel and with whom?
2. What kinds of places are most used and how are they used?

3. Are there relations between the extent of children's independent city use (without adults) and their independence in non-city activities?

B. CITY KNOWLEDGE

- 1a. How much information do kids have on selected places and activities in the city? What types of places would they like to know more about?
- 1b. Do children with wider city experience have more information on selected places?
- 2a. What problems do children have in drawing and using city maps? What types of map representations are most comprehensible to them?
- 2b. Are there relationships between map drawing and map using skills and extent of city use?

C. CITY VALUES AND NEEDS

1. What makes places attractive or unattractive to children?
2. What are the problems in children's city experience?

A variety of research methods were used to obtain information on these questions. It was considered important to use a number of methods for several reasons: (1) Little research has been done on the topic and no techniques have been developed for working with children on such problems; it was important to use several techniques as a precaution, because we didn't know which methods would be most productive; (2) Any research method has inherent limitations; by approaching the problem with several techniques it is possible to get a fuller view; (3) Children were expected to be changeable and more subject to experimental biases than adults; by working with them

in different ways on several occasions we were more likely to get the truth; and (4) It was important for us to get to know each of the subjects well; the several methods gave us an opportunity to talk to the kids several times. (Subjects talked with us individually and in small groups on eight to ten occasions throughout the summer of 1969.)

1. LIST OF RESEARCH METHODS (in general order of presentation to subjects)

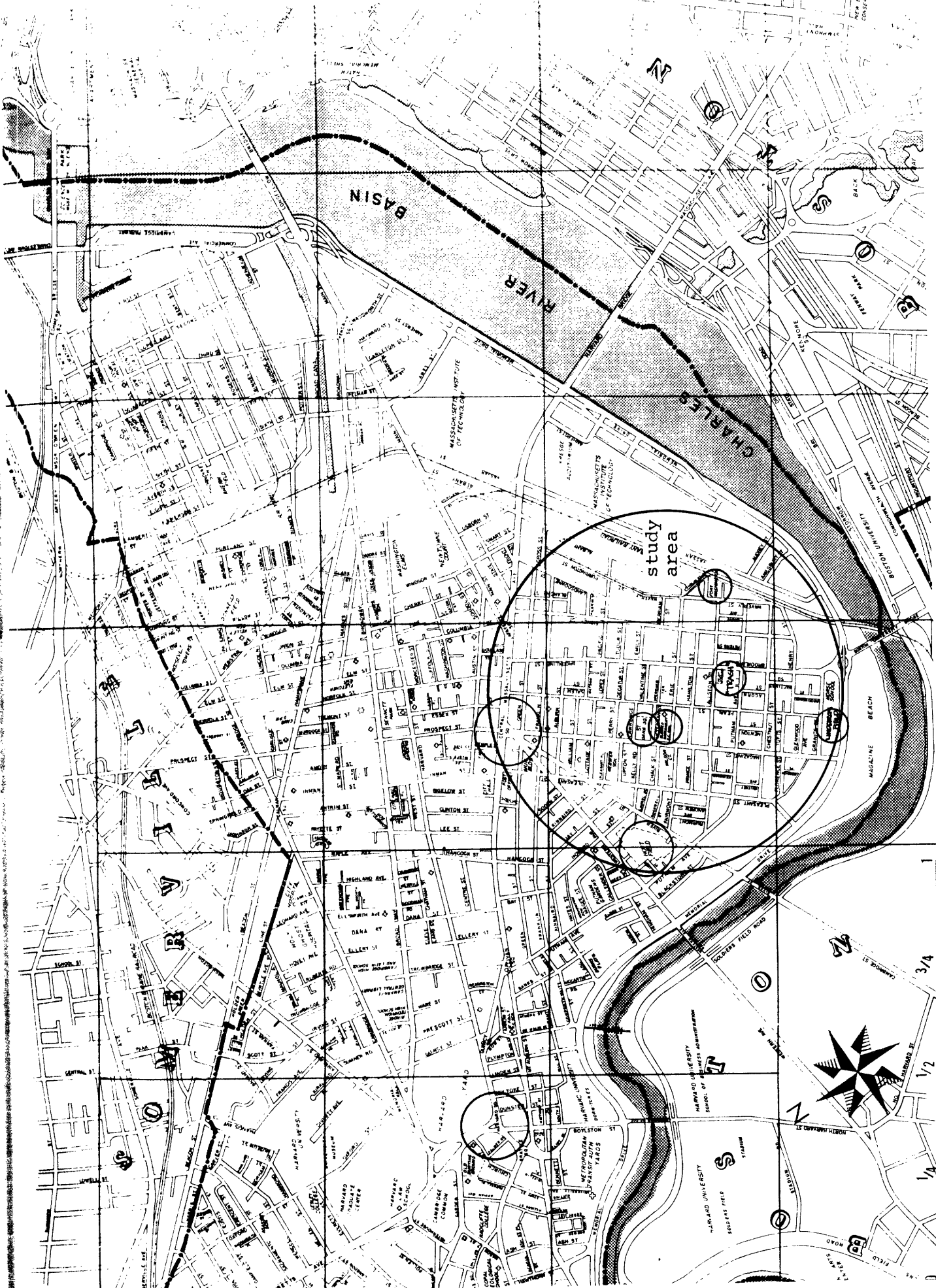
Note: The aims, procedures, methods of analysis, and an evaluation of each of the research methods are discussed in detail in Appendix I.

1. CLASSIFICATION AND VALUE OF UNFAMILIAR ENVIRONMENTS. S's were asked to group 75 pictures of unfamiliar environments according to similarities they saw in the places. They described their grouping procedures and then described and evaluated selected settings.
2. INTERVIEW AND MAP. S's were questioned extensively on their city experience and value and drew maps of their neighborhood and city.
3. PHOTO SURVEY. S's photographed parts of the city they valued.
4. INDIVIDUAL PHOTO SURVEY DISCUSSION. S's talked about their photos and answered brief questions about each place photographed.
5. GROUP PHOTO SURVEY DISCUSSION. Each group of three friends discussed together the pictures they had taken and selected those places they valued as a group.
6. TRIP PLANNING. Each group of three friends planned a trip to show us the places they valued and used most in the city.
7. CITY TRIPS. S's were to go on structured and unstructured trips in the city. (We had time for only one of these).
8. CITY KNOWLEDGE: PLACE RECALL. S's were questioned on specific information they had on fifty general types of places, activities, and social groups in the city.

9. CITY KNOWLEDGE: RECOGNITION OF PLACES IN THE CAMBRIDGE/BOSTON SCENE. S's were asked to identify 135 places selected from the Cambridge/Boston area and to describe their experience with places that were familiar. S's evaluated all places.
10. MAP COMPREHENSION. S's were tested on several types of map problems.
11. VINELAND "SOCIAL MATURITY" SCALE. A brief interview was given to s's to evaluate the extent to which they exhibited independent behavior in activities other than use of the city.
12. CITY DIARIES. On selected days s's kept a log of their city activities.
13. TEENAGE INFORMANTS. Teenagers were questioned on the city experience of pre-teens.
14. PARENT INTERVIEW. Parents were questioned on their attitudes toward their children's use of the city.

Our study group consisted of twenty-eight boys living in Cambridgeport, an area of Cambridge bounded by the Charles River, the Central Square shopping center, the railroad tracks and a large industrial area, and River Street and Western Avenue (busy streets that divide Cambridgeport from the predominantly black area of Riverside,)(see Map 1)

This area was chosen for several reasons. It is centrally located in the Boston region and is accessible to a variety of activity centers: Downtown Boston, Kenmore Square, Central Square, Harvard Square, MIT, Fenway Ball Park, Boston University and the Charles River. The neighborhood also has a mix of social groups including working class and lower middle class, as well as black and white families. This mix allows comparison of different groups' conception and use of the same places. Physically, Cambridgeport is like



MAP 1: CAMBRIDGEPORT

SCALE IN MILES

1/4 1/2 3/4



many other neighborhoods in the city. It is solidly residential, with two to four story frame houses--mainly apartments--with small yards but plentiful greenery. Maintenance ranges from very good near the River to more unkempt near Central Square. Corner stores and other small businesses and industries dot the neighborhood. A variety of streets define the area: Memorial Drive--a highway, heavy trucking streets like Brookline Street or River Street, and numerous quiet tree-lined residential streets. In short, the neighborhood seems to have something of everything.

Race, sex, age and socio-economic class were expected to be important variables in children's city experience. We controlled for class and held race, sex, and age constant. All subjects were white and had just finished fifth or sixth grades (10-12 years old). This age group was selected because it appeared to be the age when children are just acquiring more freedom from their parents to travel in the city. Girls were not included because at this age they have much less freedom than boys and most of their few city activities are lead by boys. Of the twenty-eight subjects, thirteen of the boys were from middle or lower-middle class families and fifteen were from working class families. (See Appendix I. A. for additional information on the study group.)

B. CHILDREN'S CITY USE

How extensively do children use the city? We expected that at this age most kids' activities would be confined to their neighborhood except for travel with adults. But we also thought that lower class kids would be likely to travel more widely on their own than would middle class kids because of less parental control and greater class emphasis on being able to take care of oneself. Results confirm this expectation, but also offer some surprises. Before presenting these, it will be necessary to explain the data on place use.

Our information on kids' travel patterns comes primarily from the interview and map which probed extensively for information on territory, frequency, place use, social group, and mode of travel. All places mentioned by s's were classified by (1) degree of use by s, (2) general location of place, (3) type of place.

Four broad types of place use were distinguished:

1. HANGOUT: frequently used, sense of ownership
2. USE: moderately used, not necessarily sense of ownership
3. MENTION: infrequently used
4. REFERENCE: never used, but talked about

Seven place location zones were also defined (see Map 9). These were concentric about the geographic center of Cambridgeport.

- ZONE 1: 0- $\frac{1}{2}$ miles
- ZONE 2: $\frac{1}{2}$ -1 $\frac{1}{2}$ mi.
- ZONE 3: 1 $\frac{1}{2}$ -3 mi.
- ZONE 4: 3-5 mi.
- ZONE 5: 5-7 mi.
- ZONE 6: beyond 7 miles but within metropolitan Boston
- ZONE 7: outside metropolitan Boston, including other cities, states, and countries

Places were also categorized by type, for example, open space, industry, commerce, etc. (See Appendix II.A. for detailed place type classification).

Note: For convenience, middle class s's will be referred to as M's and working class s's will be referred to as L's henceforth.

I. GENERAL TRAVEL PATTERNS

Nearly 500 places were mentioned by the 28 s's. Of these nearly half were in Cambridgeport. The remainder were distributed throughout the other zones; number of mentions in each zone generally decreased with distance from home. (see App.II.B. and Map9) Although a few places were frequently used and referred to by many s's, most places were mentioned by only a few s's. (see Appendix II.B. for complete list of places)

We find that the average number of places that kids go alone or with their friends is less for M's than L's. However, M's mention going more places with parents or adults.

BLANK PG.

Although we certainly didn't find out about every place that kids go, we feel confident our results give a good relative measure of their city travel.

2. AVERAGE NUMBER OF CITY PLACES USED

	(average number of places)	
	<u>Middle class</u>	<u>Lower class</u>
ALONE OR WITH FRIENDS	28	35
WITH ADULTS	9	6

Differences are more pronounced when we analyze results by type of place use. L's are found to have more places in the "hangout" and "use" categories than M's, but M's talk about more places they have no real experience with.

3. AVERAGE NUMBER OF FREQUENTLY AND INFREQUENTLY USED PLACES

	(average number of places used without adults)	
	<u>Middle class</u>	<u>Lower class</u>
FREQUENTLY USED PLACES ("Hangout" and "Use")	14	21
INFREQUENTLY USED PLACES ("Mention" and "Reference")	18	13

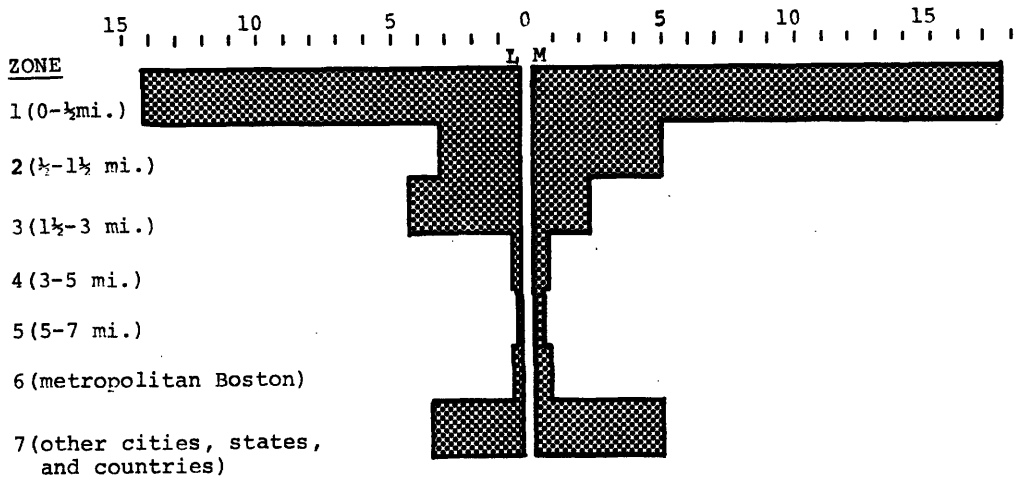
But to be convinced that L's do travel more extensively, the factor of distance of places from home must be considered in addition to number of places and type of place use. When place distance is taken into account, group differences are even more striking. Instead of totaling number of places in the "hangout" and "use" categories, the sums of the distances of all places from home were calculated. We find that for L's, this total is almost twice that of M's.

4. AVERAGE TOTAL DISTANCE FROM HOME OF "HANGOUT"
AND "USE PLACES"

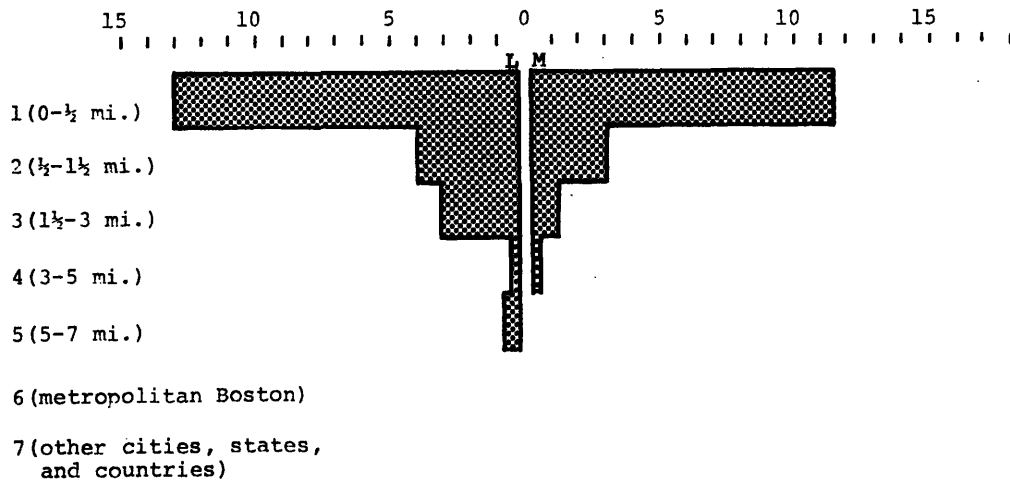
	<u>Middle class</u>	<u>Lower class</u>
AVERAGE TOTAL NUMBER OF MILES	14	26
AVERAGE DISTANCE OF EACH PLACE	.9	1.3

Analysis of place use by zone indicates that L's consistently have more "hangout" and "use" places for each zone than do M's, and most of these places are in the neighborhood. However, M's have more "mention" and "reference" places than L's for all zones except for Zone 3; places within this zone are in Boston, an area that is mentioned and used more by L's than M's. Both groups refer to a number of places outside the region but to very few in Zones 4, 5, and 6, which are nearly empty for all use categories. (see Graph 2)

If place use types inside and outside the neighborhood are compared, it can be seen that for both groups there are about half as many "hangout" places as "use" places. Outside the neighborhood there are almost no "hangouts", but some "use" places, especially for the L's. Also M's cite more "mention" and "reference" places than L's, but fewer "hangout" and "use" places, both inside and outside the neighborhood. (see Graph 3)



INFREQUENTLY USED PLACES: Average Number of "Mention" and "Reference" Places per Subject

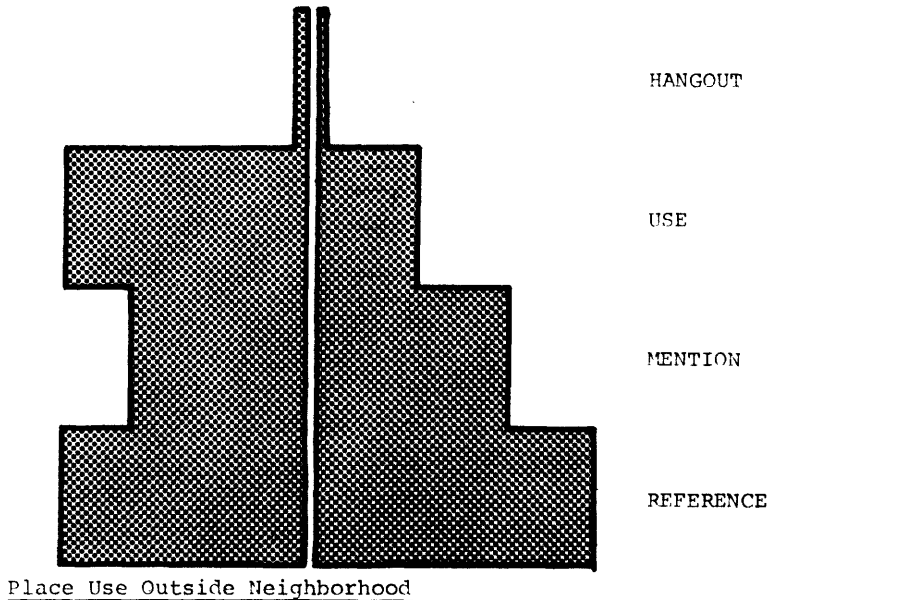
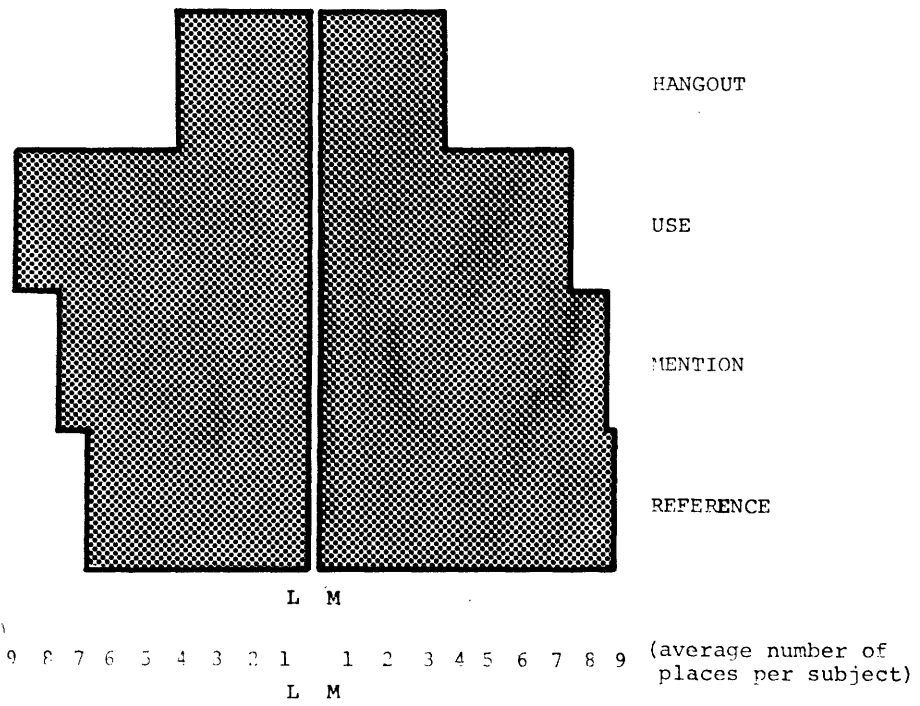


FREQUENTLY USED PLACES: Average Number of "Hangout" and "Use" Places per Subject

GRAPH 2 PLACE USE BY ZONE (WITHOUT ADULTS)

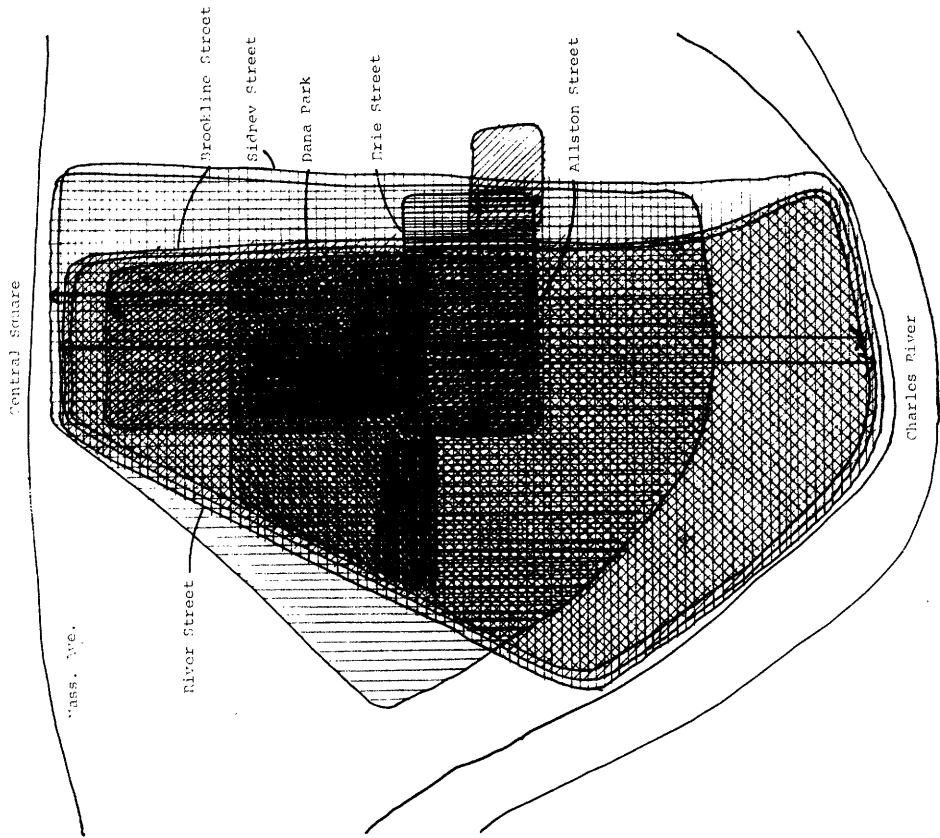
Place Use Inside Neighborhood

Extent of Use

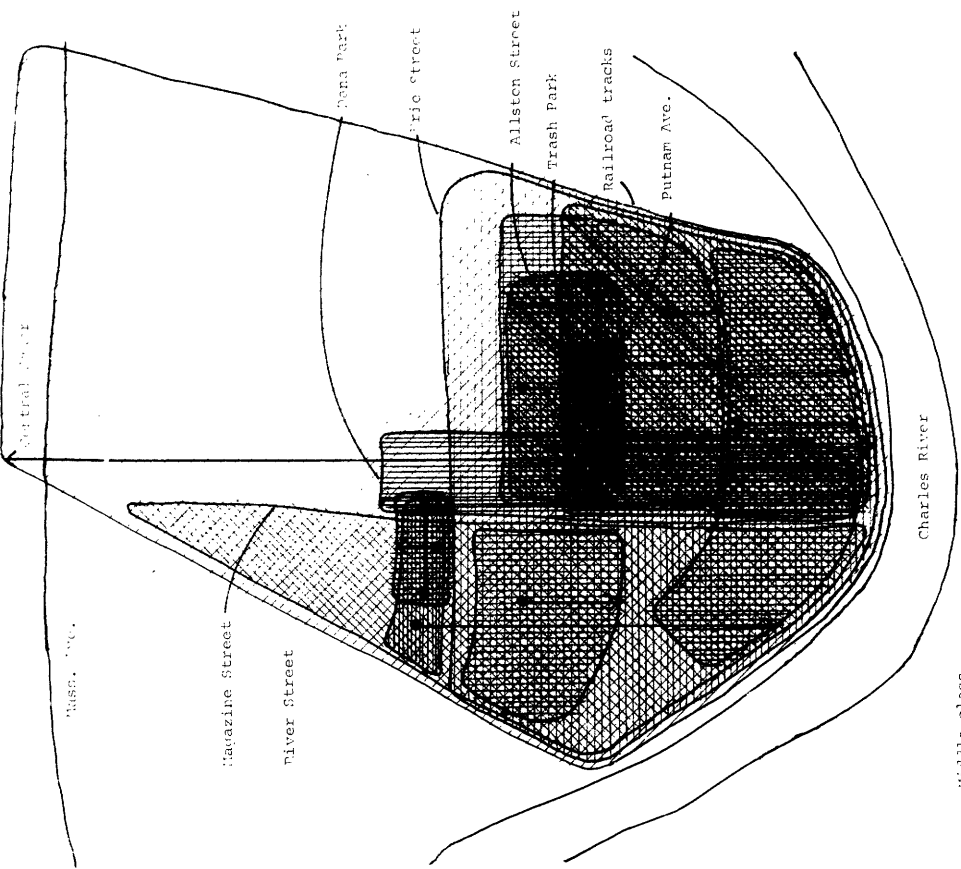


GRAPH 3 PLACE USE INSIDE AND OUTSIDE THE NEIGHBORHOOD (WITHOUT ADULTS)

→ = distance from subject's home to "average neighborhood" boundary



Lower class



Middle class

MAP 4: COMPOSITE MAP OF SUBJECTS' NEIGHBORHOOD TERRITORY

Analysis of maps drawn by S's corroborates these findings. There is a substantial difference in size of territory mapped between M's and L's. Over four fifths of the L's drew maps covering large territory, while more than half of the M's mapped small territory. (see maps in Appendix II.E.)

5. SIZE OF TOTAL TERRITORY MAPPED

	(% Subjects)	
	<u>Middle class</u>	<u>Lower class</u>
SMALL	54%	18%
LARGE	46%	82%

We also find that S's who map a larger general territory, also have a larger neighborhood territory. Most of the L's drew large neighborhood territories while almost exactly the reverse is true of M's. In fact the average neighborhood size of L's is about 50% larger than that of M's: about 95 acres on the average for M's compared with 65 acres for L's. (see Map 4)

6. SIZE OF NEIGHBORHOOD TERRITORY

	(% Subjects)	
	<u>Middle class</u>	<u>Lower class</u>
SMALL	62%	36%
LARGE	39%	64%

Thus, neighborhood size appears to increase with the extent of kids' city travel; kids who have more independent experience with the larger city also appear, on the average, to have a larger neighborhood concept.

Examination of neighborhood territories reveals other interesting features. Neighborhoods of L's tend to extend toward Central Square, while neighborhoods of M's extend toward the River (with few exceptions). In part this is a function of location of their homes; the better homes and more middle class families are generally nearer the River. But in several cases s's homes are not at all in the center of the area they see as their neighborhood: for most L's more of their neighborhood is on the Central Square side of their homes but for most M's, more is on the River side. The central area around Erie St., Allston St., and Putnam Ave. is a transition zone between territories of the two groups and is the zone where many of the neighborhood boundaries occur. Later it will be seen that frequently group conflicts also occur here. Other common boundaries are Central Square for the L's, the Charles River, especially for the M's, and two busy streets--Magazine St. for the M's and Brookline St. for the L's (Brookline St. is also the edge of the industrial area). River St. is seen as a boundary by both groups; not only is traffic heavy here, but it is the border of Riverside, a predominantly black neighborhood. This street is also the site of many group conflicts. The following subject comments are representative and illustrate some of the above points:

Middle class comments

Bad kids live north of Allston- you might get jumped or some- thin.

Lower class comments

Those colored kids are tryin to take over around here, especially this gang of colored kids I know-- guns, chains, everything.

M.

My parents don't want me to go over to places like River St...they tell me to stay away from bad kids.

I don't like the kids on Fairmont St...there's not a white one in the bunch--they beat people up and wreck houses.

Up by Central Square the kids are a lot tougher and all that--they steal bikes.

I hate Corporal McTernan St. inch to inch--so many rotten kids hangin on it.

I hate the part of Fairmont that's near River St.--all the kids hang around there and they beat up everybody--they don't let little kids go by.

I wouldn't go to Western Ave. alone, at night especially--there are a lot of bad kids there and gangs.

I don't like goin down Pearl St. cuz most of them kids live by that school and you see a lot of em hangin around--I come ridin by one day and saw about five of em together and they started throwin rocks at me.

Some kids are mean and take hold of your bike and make you fall down..one time I was going down Cottage St. and they tried to get me but I got away.

Up on Watson St. the kids think they're toughies and they go up there and they hang around and on Allston St. there is a house where this kid hangs around--he

L.

Every day from school you see a fight on Pearl St.--there's a big crowd and you look what's in it and it's a fight.

There's a lot o kids hang up on River St.--kids that like to fight and everything--there's a Port and a Coast over there where the kids hang out--it's like a gang.

River St. is bad cuz a lot of tough kids hang around there.

My parents tell me to stay away from River St. and Western Av.

No one up on Western Ave. likes me--my friend's brother don't like me either and he hangs around Western Ave.--when I go up there they throw things at me and yell, 'get out a here'--they'd beat my face in.

River St. is a big st.--it's very dangerous, trucks and everything.

On Brookline St. and down by Sidney St. the traffic is bad--there's lots of trucks and you can get hit by a truck and on Brookline St. there's lots of cars that come by.

Over on the other side of River St. it's just all Negro--that's all.

beats up everybody who walks by--a dog walks by and he kicks it--a kid walks by and he'll punch him up for nothin.

The rotten section is down by River St.--it's mostly colored people.

North of Allston it's a lot different--the houses are closer together, the yards are smaller.

At Dana Park they might beat you up--that's why I don't go up there. My neighborhood is quieter--not too many kids hang out there.

2. ATTITUDES OF CHILDREN AND PARENTS TOWARD TRAVEL IN THE CITY

Should kids travel around the city? Most s's thought it was a good idea because:

You should know what the city looks like--some kids don't even know and they live in it...it's good to know in case someone asks you, in case you want to tell someone about it.

It's not cool just staying in the city, cuz if you go there it's not cool to act stupid--askin questions and all that.

You'll learn how to take care of yourself and everything.

You can know the country better and know Cambridge better than you do just stayin around so when you grow up and want to go places you know where to go and how to get there instead of just searchin, searchin...

There's not much wrong with it if your family knows where you're goin and can find ya..if you know how to get there and back safely.

But a few subjects, mostly M's had reservations about city travel, primarily because of danger.

You can get your head kicked in, especially at night.

If you go too far you might get lost or it might be dangerous.

They might get into trouble..might try to steal somethin--might get hit by a car or somethin like that.

They might get hurt on bikes.

Not unless they're with an adult cuz otherwise they could get jumped like at Boston Gardens.

If they don't stay around their neighborhood, they'll probably get lost and won't know where to go.

Fear of getting lost is less strong than fear of people or the physical environment. Several s's do mention it however as a limiting factor in city travel:

If kids travel around they might get lost or it might be dangerous.

If kids go to unfamiliar places they're not used to it and they might get lost and not be able to find anybody to help them.

If you go to places you never been like in Boston you could get lost.

When asked what the easiest places to get lost in were, there was little agreement on particular places. Tall buildings, crowds, lack of differentiation, size of the place, and mazes of small streets are mentioned as reasons for getting lost, but unfamiliarity with the place seems most critical.

It's easiest to get lost in the areas directly behind someplace, like behind Central Square--any place where the buildings are of the same kind of quality.

In Boston the buildings are so high and there are people all over the streets--you can't even tell what street you're going down--you can't recognize.

Fenway Park is easy to get lost in cuz it has so many alleys and different things--a lotta crowds and everything.

You can get lost at Prudential--right after you get to Prudential there's all different kinds of buildings they have there.

At the trestle it's hard to find your way--you can go all the way that way and all the way that way and it's so far.

West Cambridge is easy to get lost in--it's a maze of little tiny back streets.

All places are easy to get lost in except my neighborhood.

I went to Watertown once and got lost there and never found my way back until somebody found me--I didn't know which way to go.

Parents are also a constraint in kids travel. Many parents, especially middle class, had reservations about letting their children travel around town. (see Appendix I. B. 14 for Parent Interview) Some restricted their children's travel to the neighborhood or even to the street where they lived. For trips outside the neighborhood they often required their children to ask permission and sometimes had to be accompanied by older kids or adults. Common fears were that the kids might be hit by a car (especially if they were on bikes), they might be beaten up by other kids, they might get lost, or they might steal things in stores.

Certain places were often forbidden by parents. Frequently these were wastelands like the tracks or vacant houses and lots where kids activities would be unsupervised. Magazine Pool and Dana Park were considered dangerous, particularly by middle class mothers, for reasons that will become clear later. Nearly all parks were seen as places for kids to avoid at night because older kids with liquor and drugs were said to hang out in them then.

The greater permissiveness of working class parents is reflected in the average ages at which they allow their children to travel in the neighborhood and in the city. For our sample, lower class children are given this freedom at least one year earlier. Children are free to use the neighborhood at the age of about $6\frac{1}{2}$ to $7\frac{1}{2}$, but must wait about four years to use the city-- $10\frac{1}{2}$ to $11\frac{1}{2}$ years.

7. AVERAGE AGE AT WHICH PARENTS ALLOW CHILDREN TO TRAVEL IN NEIGHBORHOOD AND CITY

	(average age)	
	<u>Middle class</u>	<u>Lower class</u>
INSIDE NEIGHBORHOOD	7.7	6.4
Age Range	(5-11)	(4-9)
OUTSIDE NEIGHBORHOOD	11.5	10.4
Age Range	(8-14)	(7-12)

Given that kids generally would like to travel around town, would they rather go with other kids or alone? It is clear that almost all kids prefer to be with their friends, especially when they're going places. Not only is it more fun, but it's more safe. In fact, it appears that the only times most kids are alone are at home or when they run errands to the store. However, group size does seem to differ with class; M's generally hang around with only one or two friends but L's prefer larger groups, often gangs. This will be elaborated later.

When asked whether they would rather travel with adults or with kids, s's were much less in agreement. Twice as many s's--both M's and L's--preferred travel with kids because it was more fun, more free:

If you go with adults you have to listen to them--if you go with kids you listen to yourself.

I'd rather go with kids my age--we have more fun and can do what we want to do, without my parents knowing it.

Parents always want you to be near them so they can see what you're doing.

Kids understand you better--your mother and father don't understand you all the time...sometimes you go down to the pool and they think you're gonna drown or something every time you go there.

Of the s's who said they would prefer to travel with adults, most were M's; for them adults have money, cars, and know where they're going:

They have money with and you can go on more rides and stuff.

You can get tired ridin the bike but you don't get tired in the car.

If you go with kids one may know the way but the others probably don't, so you don't feel too safe cuz he might go the wrong way and we'll be lost.

I like to go with adults..they can tell you more about the places where you're going.

I'd go with adults, because the kids are no good.. like they fight with you no matter what age you are.

I'd rather travel with a special kind of adults-- the ones in their twenties because you'd have more fun then.

Preferred modes of transportation are surprising, for there are sharp differences between M's and L's. Although nearly all s's owned bikes, only the M's preferred bike to all other modes for both local and city travel. To them bikes were more fun, fast, offered good exercise, and gave flexibility:

With a bike you can see more and you can stop if you want to and you can go anyplace you want--on trains, you know, they have chartered places.

Bike's fast..walkin takes longer.

The bike keeps my legs in shape...it's a Stingray.

Bike's good because you can have a lot of fun.

For the L's either bike or walking was acceptable in the neighborhood, but in the larger city there was no question that subway was the mode to use. M's thought "they smell awful", used them "in the winter cuz they can't ride bikes", or "don't know where the trains go". But L's like them

because they're fast, free (if you're clever), fun, and probably because they are a group rather than individual mode:

Subway is best cuz it takes you there faster and you can sneak in real easy...you just crawl under the bar.. if they catch you all you have to do is put one of those tokens in..they never catch us.

Subway's best because it's fun--when he comes out from the tunnel, look out the windows...it comes out at Charles St., Kendall Square, goin to Revere Beach.

I put my name down in the subway station here goin to Boston--it'll last because it's my name.

We always have good luck on the subway...once we found five bucks.

Also unlike the M's, L's demonstrated (without encouragement) considerable knowledge of subway routes. A small sample of examples:

We go to Park Street, get the train that goes to Government Center upstairs then walk downstairs and get the train that takes us all the ways to Revere, but this Saturday we're going to take a train that goes to Charles Street and we're walking over to the Museum of Science.

To get to Fenway Park we go up to Central Square, train up to Park Street to the sign that says all these stops, then it says Fenway Park, get off and walk up a little ways to what they call Red Sox territory.

We go to Government Center and take a special train to Lechmere and that takes ya to Boston Garden--North Station.

To get to the Arboretum you have to take the train to Park then you take the trolley--no, another train there.

To get to Mt. Auburn we take a subway or bus to Harvard and then take a trolley to Mt. Auburn.

3. RELATIONS BETWEEN TRAVEL AND GENERAL INDEPENDENCE

Are kids who travel around more extensively on their own also more independent in other ways? S's were questioned and rated on the extent to which they take care of themselves, take initiative, and other responsibilities (see Vineland "Social Maturity Scale", Appendix I.B.11). Results show that L's score higher than M's in independence and that s's who travel more widely (without adults) are also more independent in other ways. Spearman's Rank Correlation statistic shows a very high relation between travel and independence as well (significance = .01; $r_s = .705$, necessary $r_s = .508$).

8. RELATIONS BETWEEN TRAVEL AND GENERAL INDEPENDENCE

(travel to "hangout" and "use" places: total miles)

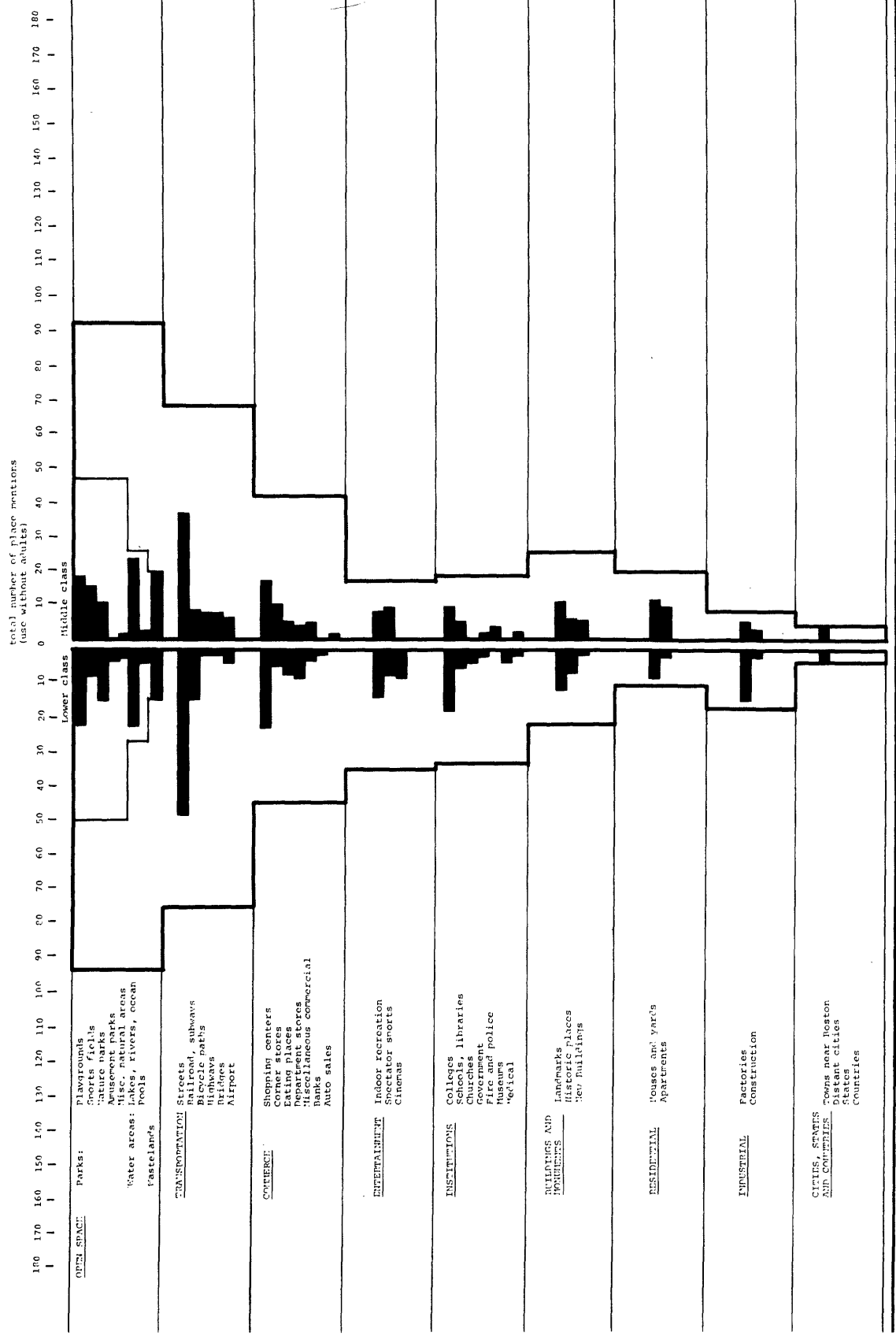
<u>Independence score</u>	<u>Middle class</u>	<u>Lower class</u>	<u>Total</u>
LOW (less than 100)	9	-	9
MEDIUM (100-110)	13	24	19
HIGH (more than 110)	19	28	23

This of course does not show that independent travel develops other kinds of independence in children; it merely shows that there is a relationship between the general independence and travel. The amount of freedom and responsibility parents give their children is likely to be a critical factor

behind both children's travel freedom and general independence. Personality of the child would be another factor. However, use of the city would be expected to develop self reliance because it forces one to cope with a variety of situations: routing and scheduling, protection from traffic and other people, handling money, providing for food, dealing with strangers, and so on. But to show that city experience actually develops such traits as independence would be a difficult research task requiring in-depth studies of s's over long periods of time.

4. HOW PLACES ARE USED

Before discussing specific places and their use by kids, general findings will be reviewed. Kids' activities are far from confined to the places designed for them, that is, playgrounds. In fact, examination of their use of different places reveals that playground activity is a relatively small part of their city experience. They hangout in or use places in every major place type category. (see Graph 5). However, the two types of places that consistently are most used and valued both inside and outside the neighborhood, for all research methods and for both social groups are places related to open space and transportation. Over 75% of these places are located inside the neighborhood. Although playgrounds and other parks are important places, water areas are the single largest "hangout" and "use" open space category. The



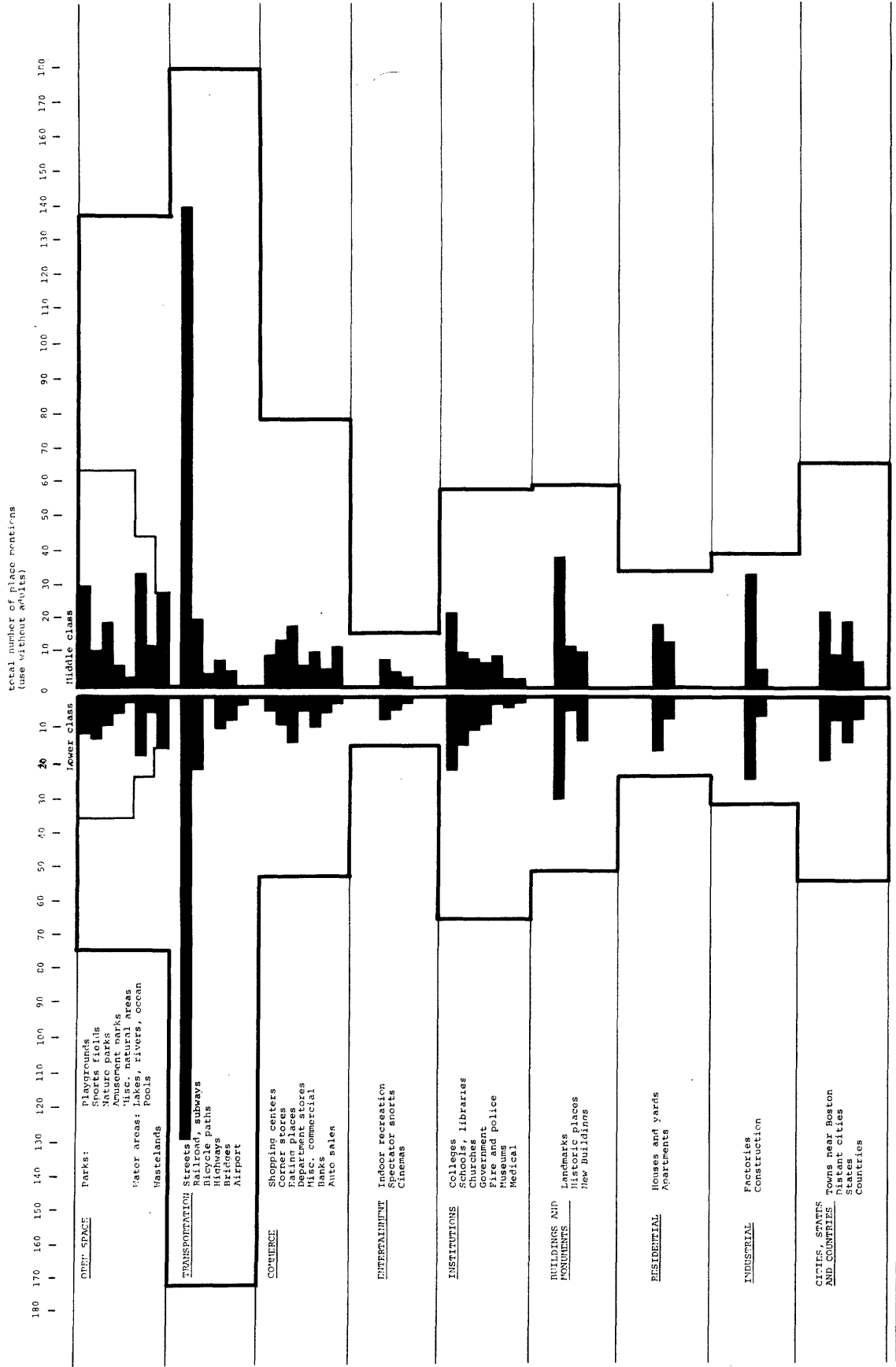
GRAPH 5: PLACE TYPE AND PLACE USE: "HANGOUT" AND "USE" PLACES (WITHOUT ADULTS)

importance of water areas is striking and will be a recurrent theme here. Wastelands--railroad areas, vacant lots, abandoned houses, and the like--are the other significant open space category; here we expected L's to be the dominant users since the areas are somewhat dangerous, "unofficial", and unstructured. The results are surprising, for M's actually use such areas more than L's. In transportation, streets are the most used of any places; this is to be expected for not only are they channels of movement but they are important places to play. Bikepaths and highways are more used by M's, but subways are more used by L's, a difference previously described. Surprisingly, structured entertainment and recreation, especially indoor recreation like bowling, movies, or YMCA activities are far more significant for L's; we expected the reverse. Similarly, institutions, particularly colleges, are places to go for L's more than M's, as are factories. Houses and yards are activity centers for M's rather than L's. Subjects do not show striking differences in their use of commercial places, buildings and monuments or of towns near Boston.

Only a few places are used in the company of adults. The biggest exception is open space; parents or other adults frequently take their children to beaches, amusement parks, picnic areas, to the country. This is most common among

the middle class families. Shopping, going out to eat, visiting relatives, or attending movies are other common activities with adults, but are far less frequently mentioned than those related to open space. Kids also enjoyed trips with adult supervision sponsored by their schools, scouts, or the YMCA. These were infrequent--about twice a year--and usually were visits to amusement parks, zoos, the museum of science, ball fields, or historic places like Plymouth Rock.

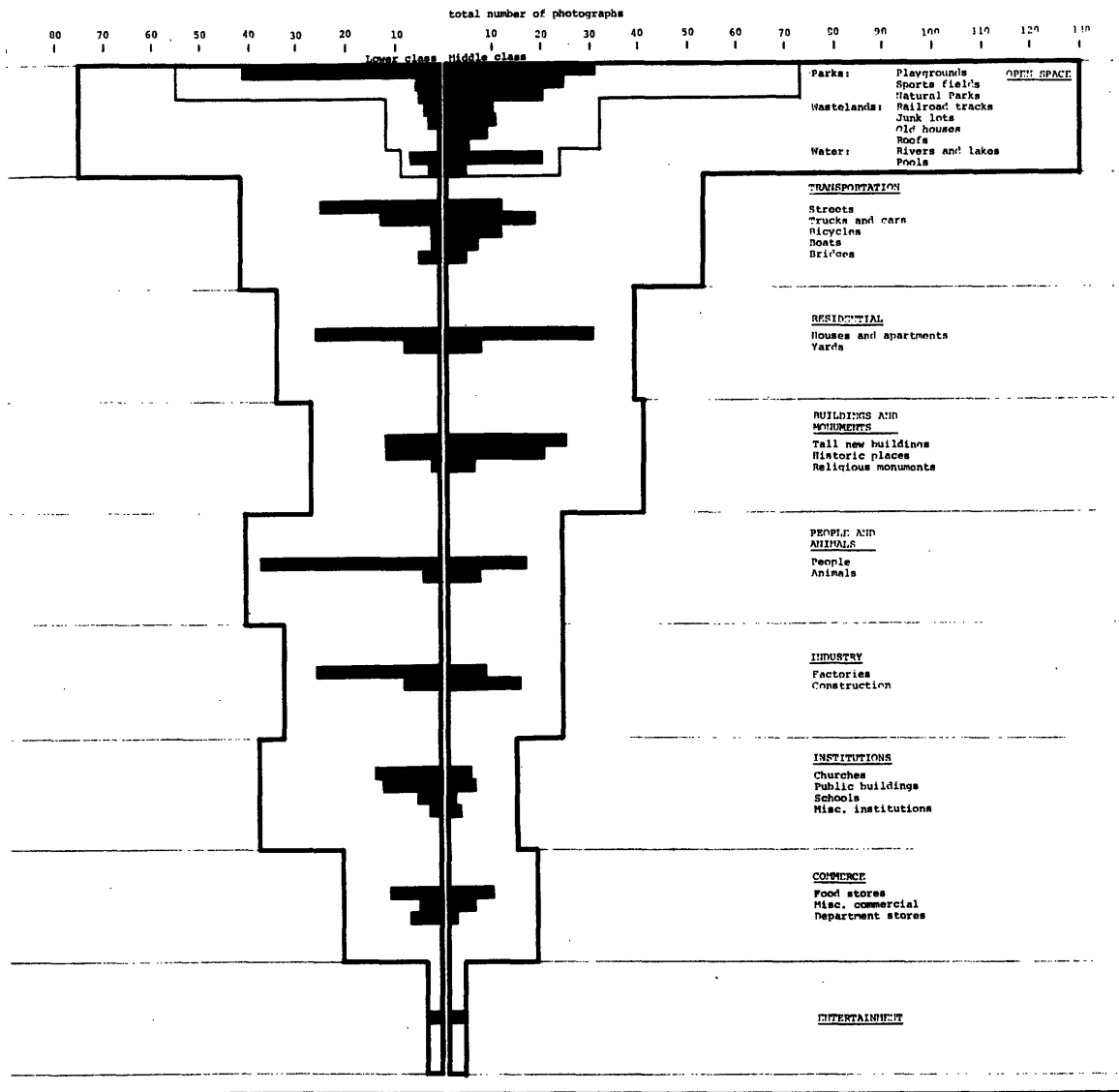
When "hangout" and "use" place mentions are compared with "mention" and "reference" places, (see Graph 6) it can be seen that M's quite consistently talk about more places than L's. This may occur because M's are more verbal, are exposed to more places by their parents, or possibly because talking about places substitutes for their more limited experience; however, it is probably not because M's know about more places than L's, as will be shown later. "Mention" and "reference" places are also distributed over larger territory than "hangout" and "use" places. Open space and transportation continue to be the most frequently mentioned places, though transportation leads and in fact is almost twice as frequently mentioned as open space. Other categories change rank somewhat, but the largest differences are entertainment and other cities, states, and countries; entertainment drops, possibly because kids know



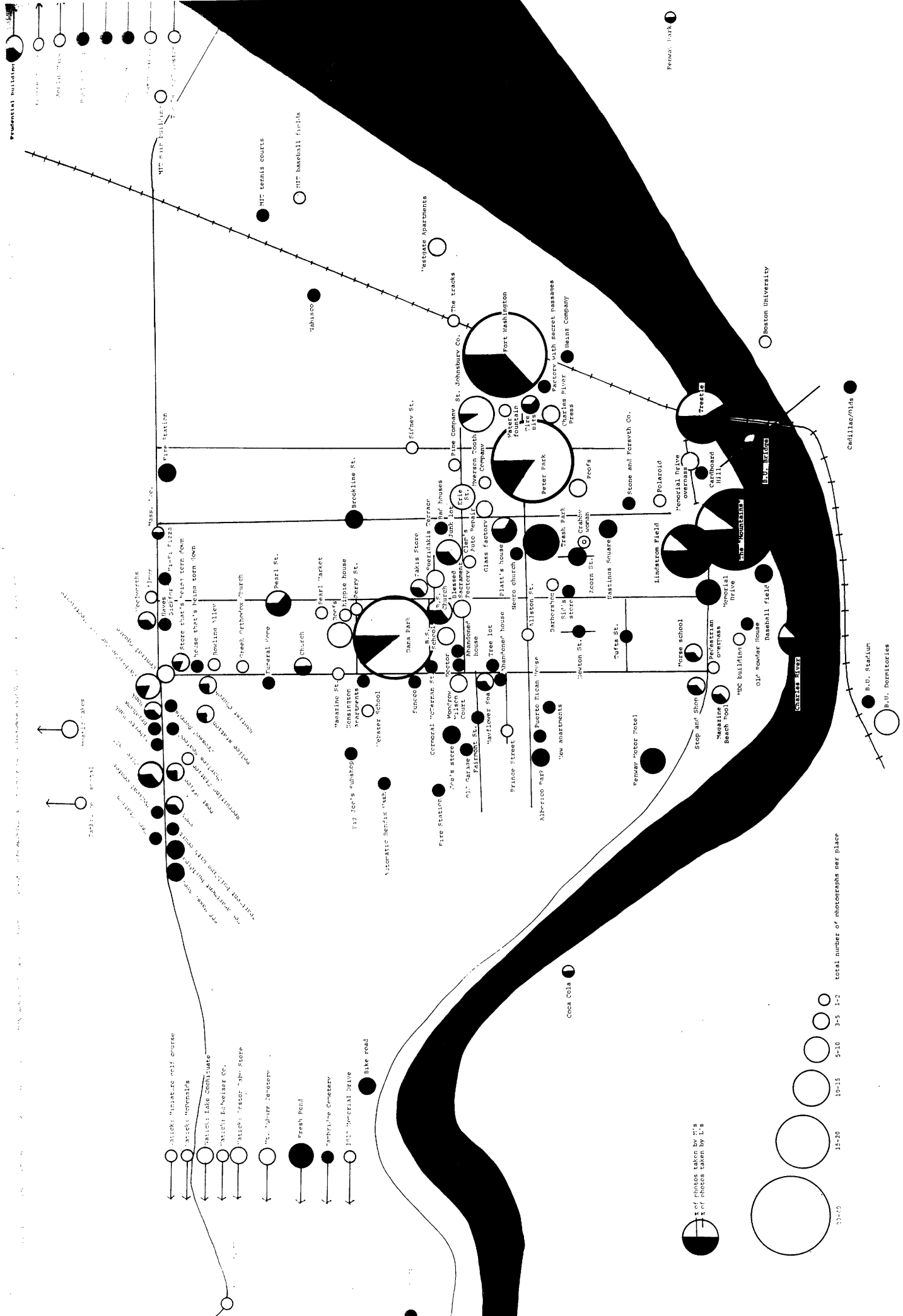
GRAPH 6: PLACE TYPE AND PLACE USE: "MENTION" AND "REFERENCE" PLACES

about few such places; cities, states, and countries are more frequently mentioned than used, for obvious reasons.

Results of s's photo surveys of places they used and valued give a good indication of places that are important in the kids' neighborhood experience also (see Appendix I.B.3,4,5 for details of method). These results closely parallel place use findings from the interviews (see Graph 7 and Map 8). Number of pictures taken of each type of place correlates with the number of subjects who photographed the place. Major differences from the city wide place use analysis (Graph 5) are residential and entertainment places. In the photo surveys, a large number of photo were taken of people--again friends, but L's take twice as many photos of people as M's; their social emphasis will become more apparent in later sections. Entertainment is a much less significant category in neighborhood than in city use, primarily because most commercial entertainment and recreation exists outside the neighborhood. Several other features of the photo surveys deserve mention. Playgrounds are more photographed by L's, but water areas, ball fields, natural parks, and wastelands are almost exclusively photographed by M's. An interesting difference consistent with other findings can be seen in transportation photos; here L's photograph almost twice as many streets, whereas M's show a strong interest in bikes, cars, and boats. Contrary to



GRAPH 7: NUMBER OF PLACES PHOTOGRAPHED FOR EACH PLACE TYPE



MAP 8: PLACES PHOTOGRAPHED

the citywide place use analysis, L's show more interest than M's in local historic places, monuments, and tall new buildings; later it will be seen that most of these places offer special activity opportunities that the kids like. Institutions, too, are photographed far more by L's than M's, consistent with the citywide analysis, and factories are photographed almost three times as much by L's as by M's. However construction is photographed twice as much by M's as by L's, probably because the construction that was photographed was near the River and functioned as a wasteland. In commercial places, corner stores and other food stores are the major category but no large differences exist between groups.

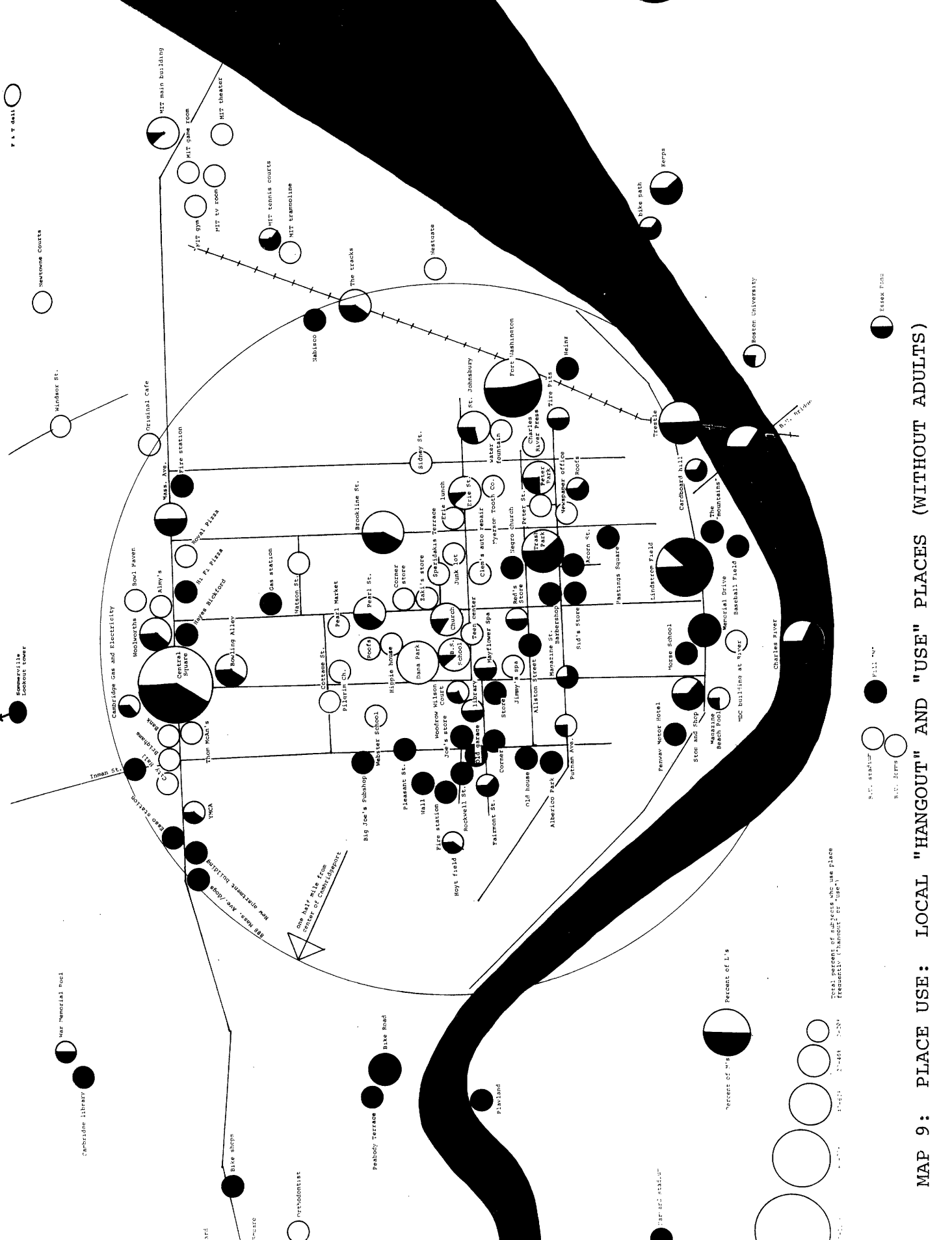
Analysis of kid's activities shows that a wide variety of activities are engaged in--over 230 different activities are mentioned. Recreation activities are by far the most frequently mentioned, with comparatively few mentions of consumer, institutional, or work activities. (see Appendix II.C. for complete list and frequency of activity mentions). General activity patterns are similar for both social groups. Group differences center mainly about the degree to which activities are structured. Contrary to our expectations, L's make almost twice as many mentions as M's of structured recreational activities of both active and inactive types. This difference is most apparent in L's many mentions of card playing, bowling, and "shows". However, M's make

twice as many mentions of unstructured recreational activities, both active and inactive. Differences are most apparent in M's interest in "watching" activities (like construction or fire trucks) or in open activities like riding elevators, looking for tennis balls, throwing rocks, or playing with dogs. M's also mention bike riding seven times as frequently as L's.

In the following pages of this section, several place types and their use by children are analyzed in detail, beginning with most-used places. (see Map 9 for location of these places.)

a. OPEN SPACE: Parks and playgrounds. Playgrounds are important meeting places in the neighborhood, especially for the kids from working class families who gather there daily and who guard their territory jealously. Of the several playgrounds in the Cambridgeport area, four were particularly important to our s's: Dana Park, Trash Park, Fort Washington, and Lindstrom Field. Each of these also illustrates different aspects of the use of local parks by kids.

Dana Park is the best example of the gang-controlled park and is the long time center of the famed "Dana Park Gang"--



MAP 9: PLACE USE: LOCAL "HANGOUT" AND "USE" PLACES (WITHOUT ADULTS)

Total percent of subjects who use place
 Frequency (Number of use)

Percent of use

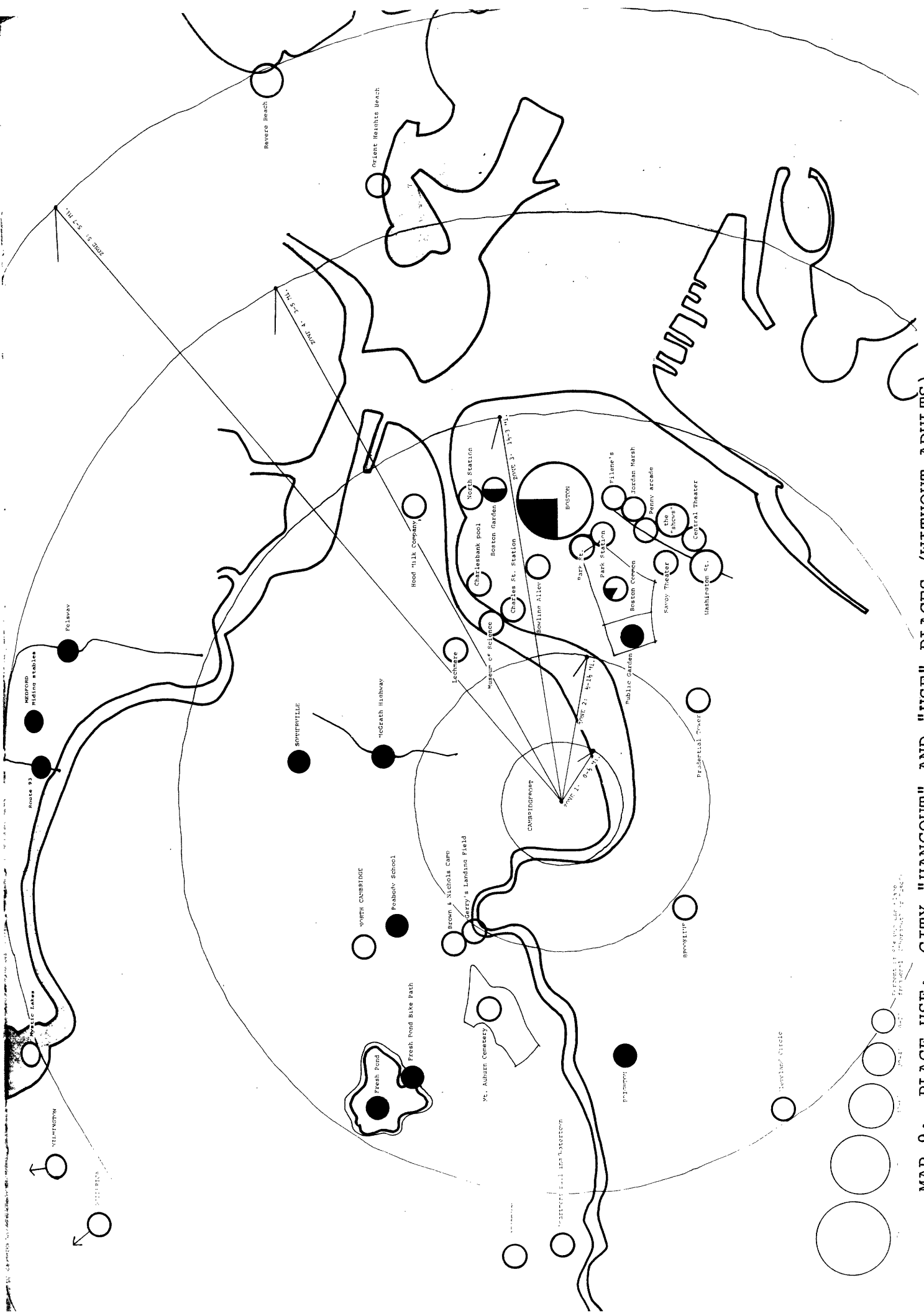
S.U. stadium

Fill in

Essex Park

Percent of L's

one half mile from center of Cambridgeport



MAP 9: PLACE USE: CITY "HANGOUT" AND "USE" PLACES (WITHOUT ADULTS)

several of our subjects had fathers or uncles who had been in the gang. The park is universally feared and hated by middle class kids and also by a few working class kids.

M's

A kid might come over and start beatin you up unless there's a grown-up there..I just hate that place..alone or with somebody I just never go over there.

Dirty, filthy drunks hang out there every night--15-20 years old. In the daytime there are teenagers and high school drop-outs...they don't exactly bother you, but they wouldn't let you do anything, they monopolize the whole thing.

The teenagers take over everything and that's why I hate Dana--I could go to the moon and that would still be the worst place.

The Dana Park kids, they talk tough and try to scare you--they say 'git ova here' and junk like that--I get scared sometimes, cuz those kids aren't ever alone and I don't hang around with too many friends of that type.

In Dana Park they're toughies, they're crazy--they'll do anything--go around beatin up kids.. anything..they bust everybody's windows, ring fire alarms and all the stuff like property.

L's

The big kids..I know them--my brothers hang around with them so they don't bother me.

I usually hang around the park sometimes--I play basketball.. once in a while we have a game of softball--you can have a lot of stuff there..

I play basketball, pick up the checkerboard and go over there, play games..day and night.. sometimes I'm there all day until it closes--from 9 to 5--there's nothin else to do.

In the wintertime we hang over the Park..in the summer we usually meet over to the Park too.

On Fridays they're always drunk at the Park at night--I look through that window and they're doin their own thing..it's cool there then.

Them kids are bums--they bum smokes off ya and take your money--they'll walk around with smokes inside their pocket thinkin they're big, but I don't mind cuz they don't touch me-- they don't touch some of the other kids either but they'll take their cigarettes.

In contrast to Dana Park, Trash Park is the nearby center for

many of the middle class kids; it is a rival of Dana Park and is frequently the setting of conflicts:

Usually we go down there--the Dana Park kids go down there and start trouble--try to break up the park--one of the kids just come down and started trouble with another kid and he gave him a black eye so he said he was gonna get all his kids--the Trash Park kids--so they went down there to see if they were gonna fight and they started to fight.

In contrast to Dana and Trash Parks, Lindstrom Field is designed and used for sports. It is dominated by M's, partly because organized active sports are more attractive to M's (L's seem to avoid activities that require advance organization) and partly because the Field is closer to M territory, being near the River. In fact there are few mentions by L's of using Lindstrom, in contrast to the almost universal use of Lindstrom by M's; if L's do play in baseball games they seem to go to Hoyt Field, an area avoided by M's since it is beyond the River Street edge, commonly viewed as a danger zone.

M.

Lindstrom Field--that's where we mostly play--no fresh kids there or anything and the kids are smart.

I go to Lindstrom a lot..my friend calls me up and tells me to be down there..we just call up the kids and gather them up and tell them to be there at a special time.

We go down by Memorial Drive and watch em play baseball almost every night..I usually go with Michael and then meet a couple kids down there.

At Lindstrom we have a baseball game that's a couple hours--they're at night and last until about six o'clock.

But

Hoyt field is a bad place cuz the kids there they jump you and they carry knives on them and everything..they get into a lotta trouble too.. they're mostly there in the daytime but at night they hang in groups in the stands like and they sit up there.

A couple nights ago a guy was walking by Hoyt and got stabbed. They jumped then robbed him.. he said it was a bunch of kids..sometimes colored kids start riots, they break bottles and start big fights.

But Fort Washington is the most unique park. It is not dominated by any particular group but is frequently used by kids of both social groups. This might be so because it is not located in a residential area and is consequently a "free" territory--a neutral zone--not claimed by residents. Its relationship to the surroundings makes it fascinating to visit. Across the street is the St. Johnsbury trucking company (discussed under industry) that features trucking activity, a fine open parking lot for bike riding and hockey, a drinking fountain, and several workers who will talk to kids. Behind the park run the railroad tracks that lead to the trestle, a wastelands area that intrigues many kids, as will be seen in the next section. In the middle is the grassy, treed park. It is not an ordinary park, for it was established by Washington to defend the Charles; cannons and earthmounds, along with a battle-ax-and-spear fence, a memorial plaque, and a flag pole testify to this. It is a place where kids of both

groups have fun in a variety of ways. They learn about history as the natural result of their play setting--in fact the Fort is about the only place of which s's had any historical knowledge.

George Washington ordered a fort to be built there so that in case the British came down the Charles they could fight the British ships..nothing happened but they did it just as a security. I usually play baseball or ride down the hills.

We go down to the Fort and fool around--roll on the grass and everything--sometimes we take our bikes all the way down.

George Washington set up a fort there and kept the British from comin up the Charles River. You can play baseball--any game you want to--its big, you can do anything.

Fort Washington guarded the Harbor--one gun, two gun, three gun--the whole thing's still there--every bit of it. There's a big marvelous mound like this--it used to be about ten feet.

There's like dirt hills that come up that were used to protect against the British and they have cannons down there too...kids play baseball and sometimes watch the trains go by.

Sometimes we play catch down there..sometimes we climb on the three cannons they have there.

Fort Washington--that's where George Washington was there--he fought the British...I just go there a lot of times. Mostly I just walk around there..it's all grassy.

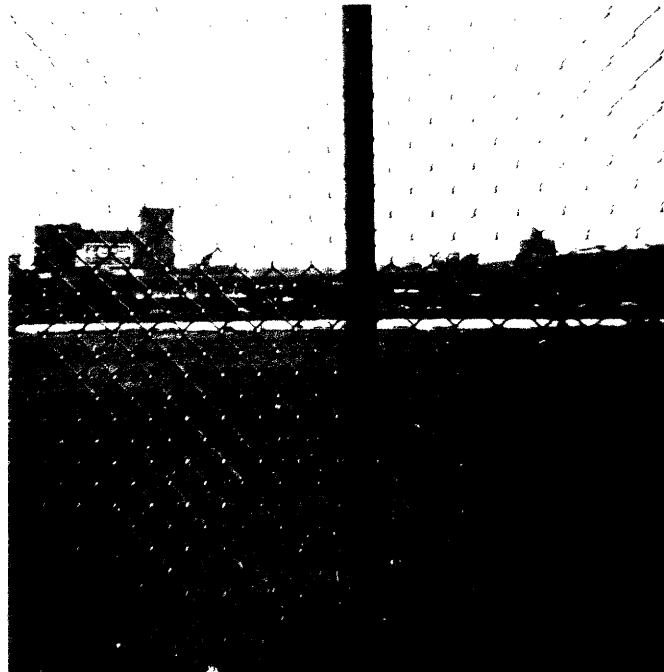
There was a battle..they used it in the old times--it's somethin to look at from the old times--it's still there, ya know--the fort's still there. We play baseball there but it's too easy to hit home runs in the fort.

We just go down to the Fort and play on the cannonballs--we wait down there for the train and hop it down to the river.

Dana Park



Dana Park



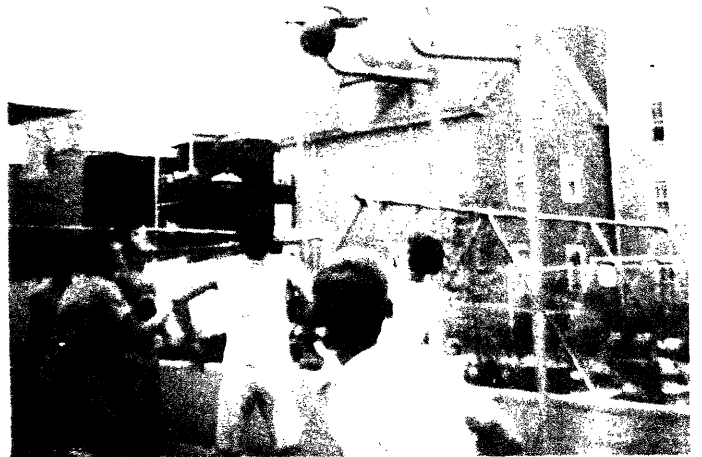
Dana Park

Hoyt Field

Lindstrom Field



Trash Park



Peter Park

Peter Park

Fort Washington



Fort Washington



St. Johnsbury from Fort Washington Fort Washington

Fort Washington--Washington fought there cuz there are cannons there...when I was small I saw my friends go over and play football on the grass and everything so I got to know where it is...well, I saw the cannons there and on the front of the gate it said Fort Washington and it said 1821 and all that so it had to be important.

Even though the Fort is outside group domains, it is not completely free of trouble. However, St. Johnsbury workers across the street serve as patrols:

The truckers are there--you know they may be kind o rough characters but they're not bullies--if they see anybody go after anybody and if they can see ya-- to bop somebody on the nose takes quite a bit of time--if they ever get their hands on one of those kids--grrrrhhh.

ii. Water and Natural Areas. Natural areas are important to most kids, but especially to the M's, whose nature bias is reinforced by their parents, who more frequently take their children to such places. Water areas are particularly used and valued and provide a setting for a variety of activities: fishing, boating, catching frogs, swimming, throwing rocks, skating in winter. Other activities are associated with certain water areas: carnival amusements, bike riding. The Charles River is the most frequently used and valued water area, though s's complained about the pollution. Most water areas are used by kids in the company of adults because they are considered too difficult to reach or too dangerous for kids alone. However, several easily

accessible water areas appear to be unknown to the s's, for example the Boston Harbor, City Point, Pleasure Bay, and the Fens are rarely mentioned.

You know where the grass is on the River--we just go over there and like trucks, sometimes just go over there and pick up rocks and everything or we just set up bottles and throw rocks at em--we go down there a pretty lot especially when we don't have anything to do we'll go down there and just hang around down there.

By the River it's not too good now cuz of all the construction, but we like it--the kids down there they all like it--just for a place to hang around.

By the River you can make rocks skip or you can throw somethin out and try to hit it.

We go down to the River to play with the dogs.

My father has a canine and I go down there with his dog, run him around.

Sometimes we go riding along the River down there--you know, it's nice down there.

Sometimes I like to lie down or throw rocks.

Some kids go swimmin--they jump off the trestle--the water's clean right there--it's like a cove--all the fresh waters come down and go in the cove.

Sometimes in the summer we hang around the River and go down there and play cards...if I ain't over at the Park, I'm down there--you go there day and night.

You can ask a guy to sail his sailboat...once in awhile if you help em with their sailboat you can ask em if we can have a ride in a sailboat or motorboat.

Fishing seems to be almost exclusively an L activity, in fact there was only one M report of fishing in contrast to the many mentions by L's.

We go down to the River where there's a trestle-- it's like a bridge where it goes over--we go underneath there fishin--you catch a lot--herring--you can't eat em though. A friend and I caught 254 in twenty minutes with a net--once I caught 125 when I was alone. The fish come about June.

The kids go down there snaggin fish--you get a three-way hook and tie it on and when the fish come by you snag it real fast.

When I'm in the mood to fish I go down where there's like a bridge and there's water underneath and down below there's big huge cement blocks like and ya climb down and sit on them and ya fish off em.

Danny and Michael went fishin off the Western Avenue bridge--they took the fish and were throwin em at the boats and they hit a police boat and they said get off the bridge and one kid escaped but the other got caught.

Other used and valued water areas are more distant, and are used more by L's than M's (without adults). Revere Beach, Orient Heights, and the Mystic Lakes are used exclusively by the L's, whereas Fresh Pond is visited only by M's.

M.

I'd like to live near Fresh Pond cuz there's a good place to play there and everything.. there are trees and everything and swings and slides and you can look at the pond and there's a miniature golf course and a lake with lily pads with little frogs on them and we saw some frogs on em.

I often go to Fresh Pond. There's a park near it like with a track around it.

L.

We go up to Revere Beach a lot-- me and my sister went up there 3 times last week--I like to go up there--I go on the rides, play games--I like the bubble bouncer-- it goes up in the air and CHOOM! you go crazy.

At Orient Heights it's ocean like--we have sand fights, swim fool around.

Frog and turtle catching are engaged in by both groups. Two good places s's have found for this are "Essex" Pond, and Mt. Auburn Cemetery. Essex Pond (also known as "Duck" Pond because it has ducks) is particularly well liked; it is surrounded by large willow trees, has a fence to climb (as well as trees), and is in a nice residential neighborhood on the edge of Brookline. (The actual name of the pond is Hall's Pond, but kids call it "Essex" because the street they walk to reach it is Essex St.)

I usually go over to Essex and catch frogs and turtles--you can catch a million turtles. Say this is the train tracks and this is the B.U. Bridge--then you walk down and way up here it is. My father doesn't want me to go too close to the water cuz it's a bottomless pond.

Sometimes we go to Mt. Auburn Cemetery..we catch frogs or turtles but we let em go.

We usually go to the cemetery and do our own thing--catch frogs, get chased by cops--that's bout all--they can't catch us tho, we're too fast--all's you have to do is climb over the fence and you're out. We met a doctor down there the other day--he was taking away the things, lookin at the frogs and like lookin at the scenery.

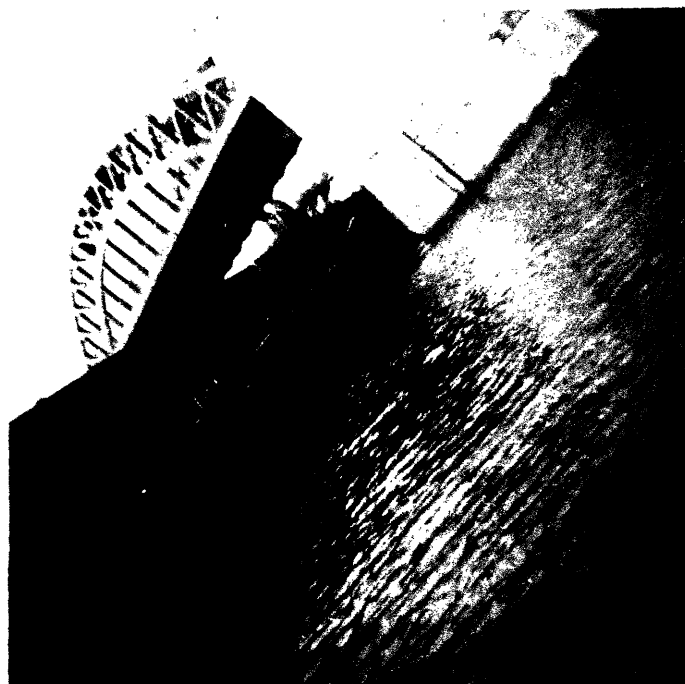
Over by Essex Pond there are all these trees and stuff--we go down there--they call it the "trees"--all kinds of big big trees--the trees are enormous--there aren't many buildings. The trees have all kinds of names carved in them--you know all different names--we go down and climb on the trees, carve our names on the trees--you can do everything down there--we have some fun down there.

Swimming pools are less valued and used than natural water areas, particularly for M's since pools are more crowded and are more often the site of social conflicts. Magazine Beach Pool, located on the Charles River in Cambridgeport, is in

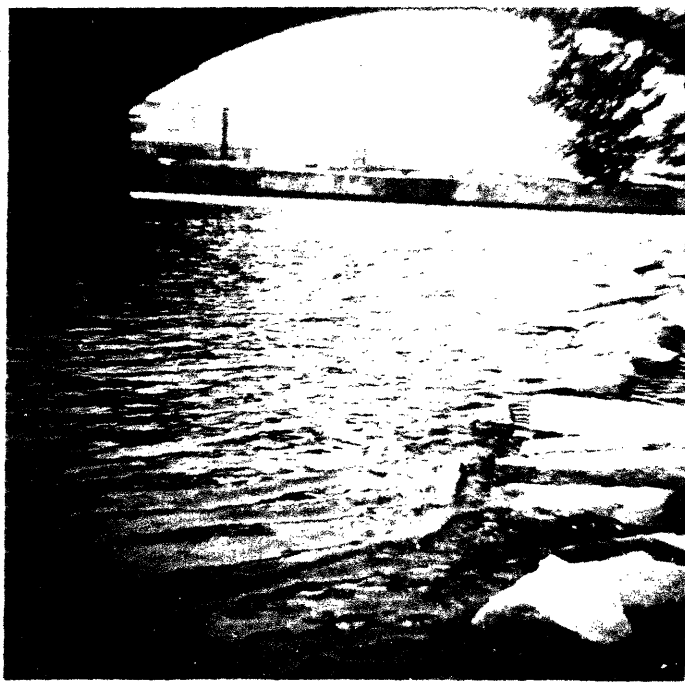
Magazine Beach Pool



Charles River by the trestle



Charles River

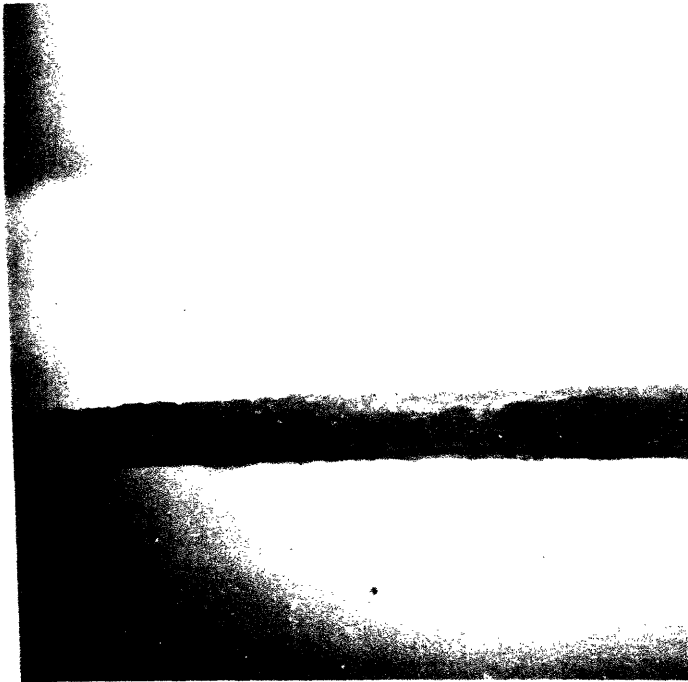


Charles River by the trestle

Trees at Essex Pond



Essex Pond



Fresh Pond



Mystic Lakes

fact avoided by most M's since it has been "taken over by the other kids", and is regarded by many M's in the same way as Dana Park.

M.

At Magazine Pool there are a lotta fresh kids. Some of them try to drown you...they get five kids that are way bigger than you and they jump on you.

I hate goin down to that pool though. I only went once..a couple of colored kids make trouble and all that--they push you in--the only kids who do it are the ones who have big brothers..like the other day I was all dry and a kid splashed me and I was about ready to go over and tear him apart but then I saw about three or four big kids watchin him ya know. I thought they might be his brothers so if I started somethin they'd all jump on me so I just walked away.

L.

We go down to the River-- kids play cards, some go in the pool--we just sit around and talk, put on the radio, sit down there.

Kids just hang around and they go down to the pool mostly-- down to the River--that's what they do.

I don't like that water either-- a lot of people don't like that water--I don't like the pool either--the ten feet ain't open.

iii. Wastelands. Waste areas provide settings for a variety of inventive and unstructured activities, though these are rarely approved by parents. In Cambridgeport the railroad tracks and trestle are the major wastelands resource and offer a great variety of settings: jungles, trains, junk piles, abandoned factories, roofs and poles for climbing, odd spaces between buildings, and the tracks and trestle themselves. But these are not the only waste areas used; others are dirt mounds on the River created by a construction project, vacant lots, industrial junk yards, vacant houses.

Contrary to our expectations, these areas are generally more used and valued by M's than by L's. Although L's use such places for secret activities like drinking and smoking, they are not as attracted to using wastelands for fort building and exploring as are M's. In general L's seem to prefer places where lots of kids congregate--social centers rather isolated, secluded places like most of the waste areas. It will be seen throughout most of the analysis that M's prefer small social groups and areas that are more private, more like the country--their ideal environment.

We go a lot of times to the trestle--watch the trains and ride along the trestle. There's a part with secret passages. There's a big factory like and there's a hole in the fence and there's a building. We go through the fence and the building and there's the trestle tracks. In one place there's a BIIIIIG cement hill like--a cement block--we took our bikes down there and over to the trestle.

Me and my friends ride our bikes down to the trestle and that's important to me cuz we have fun down there and watch the old trains move.

Sometimes we go down to the yard (railroad yard on the other side of the River) but we got kicked out--there's a guy down there who'll kick ya--once the guy didn't kick me out--I was just lookin at the trains.

The train comes around about once in every five hours--it comes in at 5:00--you can get a ride on the train there.

At the trestle you can go all the way that way and all the way that way and it's so far.

Kids love to walk the railroad tracks--some of em even jump onto trains.

Kids go down where the freights are and hop the freights while they're goin...I go down to Fort Washington and I see the kids do it.

When we watch the trains we ask the engineer if we can get on the engine so when he goes by he says we can get on the last car, the caboose and we sit on the steps of the caboose and go all the way up to Central Square and get off and walk back. We ask that to the guy and he really lets us. We got only one chance to go on the engine, usually when it's the young engineers--the old ones they say get out o here--they won't let you.

At the trestle we just mess around--do whatever we want to do--if the train goes by we get on and ride it--some kids go to Central Square, some of em don't.

We get a ride on the train--we get on past the little house near Mass. Ave. and then down by Fort Washington, jump off--sometimes it takes the tracks right close to St. Johnsbury and you can hop off onto St. Johnsbury trucks.

There's an iron pole where you switch tracks..my friend said his friend did it when a train came and instead of the train going like it's sposed to, one part went along this track and the other side went along this. They caught him and he got in trouble too. There's another thing my friend told me about--there's some lever that stops the train--you know, the air brake. You pull the lever and the air stops the train--it's right near the wheels, almost everybody knows where it is. On top of the train there's like a wheel--turn it and the back of the train turns around.

A lot of kids hop freights and steal things inside em. Almost every Fourth of July they have trains comin through here with firecrackers. They hop on the train and they open up the thing and there are crates of firecrackers. There's like a little wire holdin the door closed and they cut that with a clipper.

Some kids go and get flares--take em right out of the train and light em off.

Sometimes we hop trains down by St. Johnsbury, sometimes we just keep on goin up by MIT and jump off. When it goes by the trestle it goes slow--then it starts faster--you jump on the ladder part by the caboose--it's New York Central. They stop off there and the guy checks the train to see if they busted in and to see if anybody's on it.

It is understandable that the trestle area itself should be so well-liked. It offers a wide range of things to do--jumping across the beams of the trestle, fishing, sitting on the grass, rolling or sliding down the hill, fishing, hopping freights, smoking and drinking, and writing names under the tunnel or on the trestle. Although it is just a piece of land left over between the railroad trestle, Memorial Drive, and B.U. Bridge, it is an idyllic natural setting: quiet, close to the water and away from traffic, hilly, with fine views of Boston and B.U. We have seen how the area is used for fishing and sometimes swimming. Kids also like to sit under the willow trees and play cards, smoke or play frisbee tag, jump and climb on the trestle girders (between which there is a considerable drop to the water), or write their names under the tunnel or on the trestle. The steep embankment that leads up to the road level--called "cardboard hill" by many kids--is a favorite place for sliding on cardboards in the summer and winter.

Conflicts between age and class groups are not infrequent at the trestle. Older kids in particular like to chase out the younger kids. But for some s's this type of adventure is half the fun.

Sometimes there are fresh kids down there, clippin everything--hoppin freights, everything--we cut out but they can't catch us--we're too fast. If they was younger I'd kick their heads in instead of runnin.

Down at the trestle there are some fresh kids-- mostly the ones you usually see under the tunnel-- they have their names written all over it--they're older and if they see any kids under there they'll yell at em and everything.

Once in a while I don't like to go down to the train tracks cuz once in a while there are a lot of fresh kids down there like they say get out of here--we don't want ya down here.

I wouldn't go down to the tracks at night--a lot of hobos sleep there--they might grab you or somethin.

Other interesting waste areas are the "tire pits", the "tar pits", the "mountains", roofs, and old houses.

The tire pits are nothing more than an enormous junk pile of tires near St. Johnsbury.

There's a place right here on the tracks crossin the trestle in St. Johnsbury...it has about 200 tires stacked up. I used to go over there a lot and play tag--me and my friends. The guy don't care if you go in because he's practically never there and so we used to jump on the tires and play tag and all that.

I'm sposed to stay away from the gas station, but I usually go down there a lot. There are old tire tubes in the back that we bounce around on, except when the big boss is in he doesn't let ya but he isn't in that often.

Over here are tires--piles of tires for St. Johnsbury. We go down there and jump on them. That's how one kid busted his leg. He was runnin along this truck and he was runnin and missed it and landed right on his heels like that. The cops came down. We used to go down there a real lot until that happened to his foot--four times a week, sometimes the whole week--go down there at night. We never knew that was down there--we were just walkin around and found it.

The tar pits are a similar setting near Boston University Stadium where action is also the main theme.

If you really like to have fun and you like dirt we go to the tar pits. That's where I got a blowout about three weeks ago. I jumped over a big rock and I come up like this--big rocks--when I was layin down on the ground I felt three big rocks inside my tire and the tire was flat.

Over at the tar pits there's a roof where you jump into the pits.

Over at "Hill W" it's not grass, it's tar--you ride your bike up it and like down.

The "mountains" are dirt piles along the River that resulted from some construction work.

These hills are dirt--we had a game of war there and got all dirty.

We throw rocks down the mountains there--they're all over the place..they're left over from digging the holes.

We climb on the mountains right there where they're buildin.

Roofs are the ideal place for climbing.

We go climbin on roofs down here by a lot of truck companies. There's an old guy there named Maggio-- he gets mad if you do it. There's a roof with barbed wire right here, there's another roof right here, and there's a barn like here. We used to climb on the Morse School but not anymore cuz you know we got caught.

We always go on roofs down near the tracks almost every-day. A couple of good roofs are next to Manny's. There's a garage then right here --there are three roofs packed together.

On Lawrence Street there are all the roofs and stuff to climb on and people let us in their houses. There's a guy who lets us go on the roof and do our OWWWN thing.

Empty houses provide meeting places and are fun to explore.

I like the old house cuz you can go in and sit down and there's furniture you can jump up and down on-- you can have real fun in there. One time when we went in there they said "get out o here" and everybody started to run and I was with em.

This house has a garage next to it and sometimes we go in it by ourselves and explore it. I don't like to go in it alone. There's just a shelf with some things on it and there's a chair. Some people say nobody's sposed to go in there because there's all windows broken and stuff and it's dangerous.

Up here there's a torn down garage--we used to have a club in there--it's all torn down now.

Sometimes we meet over there in the old garage when we don't feel like playin ball--a few times a week.

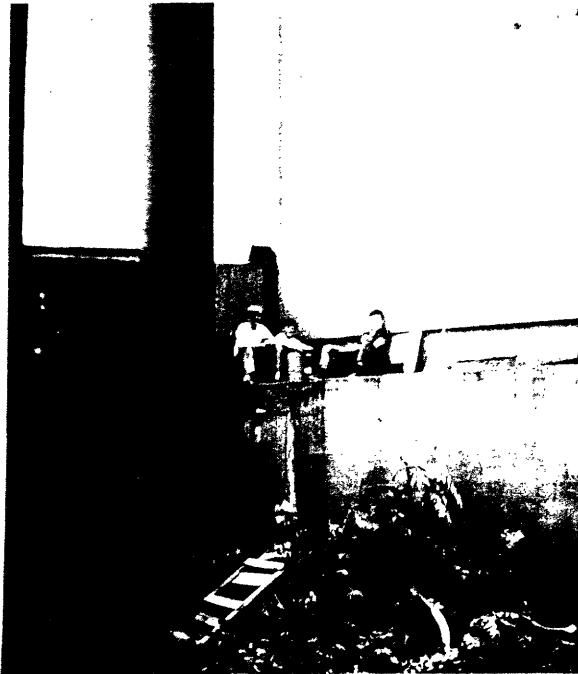
One time I went in this old house with my friends and my mother said she didn't ever want me to go in there so I didn't tell her.

Across from the project on Magazine St. when the people moved out they broke windows--we went into the house and up to the attic and I went into the kitchen with my friends and everything. We found a bottle with stuff in it. I don't know what it was. It smelled so awful. It could make you sick. I've been in there two times. It's kind o scary, especially at night.

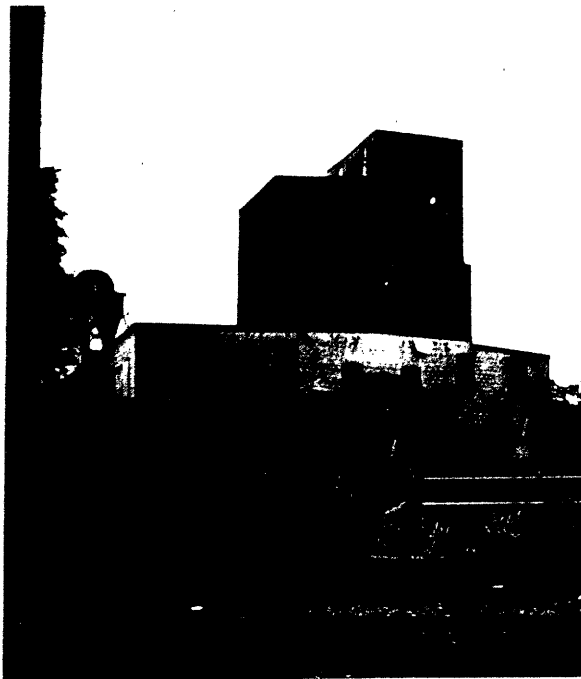
Fort building is the other common activity in waste areas, especially along the railroad tracks. One group of subjects in fact showed us no less than fifteen such "forts" they had claimed and named mainly along the tracks. One is "the room", a small abandoned metal shack by the oil tanks on Purrington and Pacific Streets. This is decorated with their names and has an interior ladder that leads to the roof-- a favorite place for sitting. Another is a narrow and hidden space between two buildings on Erie Street; kids had found a cache of collapsed cardboard boxes nearby which they

assembled and stacked in the space. This created a fine place for jumping--the idea was to climb on the roofs of the buildings and to then jump down onto the pile of cardboard boxes. "Mong Valley" is a fort sited on an unused loading dock and like the trestle, was claimed by painting their names on the loading door in tempera paint stolen from the school. The origin of the name is interesting: they referred to cigarettes as "mong" and since they used the place mainly for smoking it became "Mong Valley"; "Valley" referred to the slight (almost imperceptible) slope in the street which in flat Cambridge became a valley. This setting also had the advantage of providing a fine view of a favorite building, the Prudential Tower. Other forts include an abandoned building, a pit along the Charles, and the roof of an outdoor incinerator. But perhaps the most innovative "fort" was the one inside Blessed Sacrament Church! Several of our subjects were altar boys; in their explorations of the Church they had discovered that high above the altar there was an attic which could be reached by climbing a long ladder--a perfect place for meeting, especially in winter. Altar candles were "borrowed" for light and kneeling pads were used to sit on. Kids claimed that over a period of two years they went up there almost every day after school to talk and smoke until the missing kneeling pads and candles were discovered by a janitor who went to the attic to fix a leak in the roof!

The "roof"



The "room"

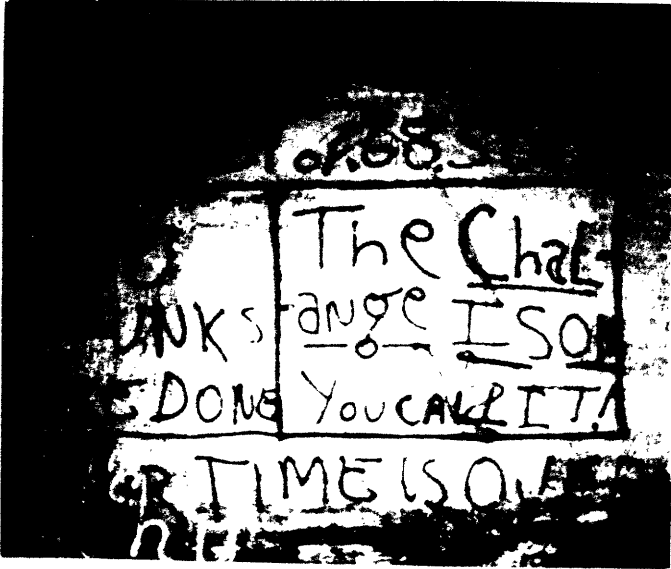


Abandoned factory



The trestle

Under the tunnel



The tunnel



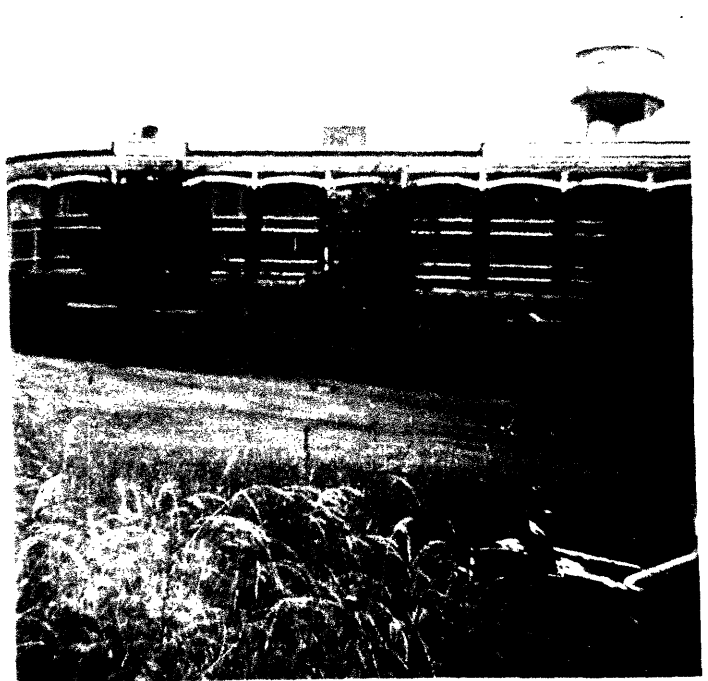
The tracks

Near the trestle

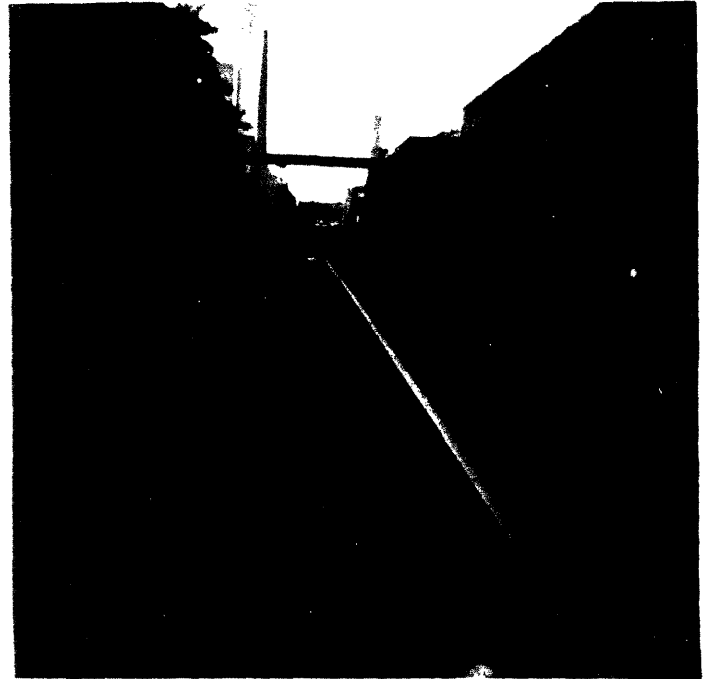
View of the Charles near trestle



"Cardboard" Hill



Hopping freights

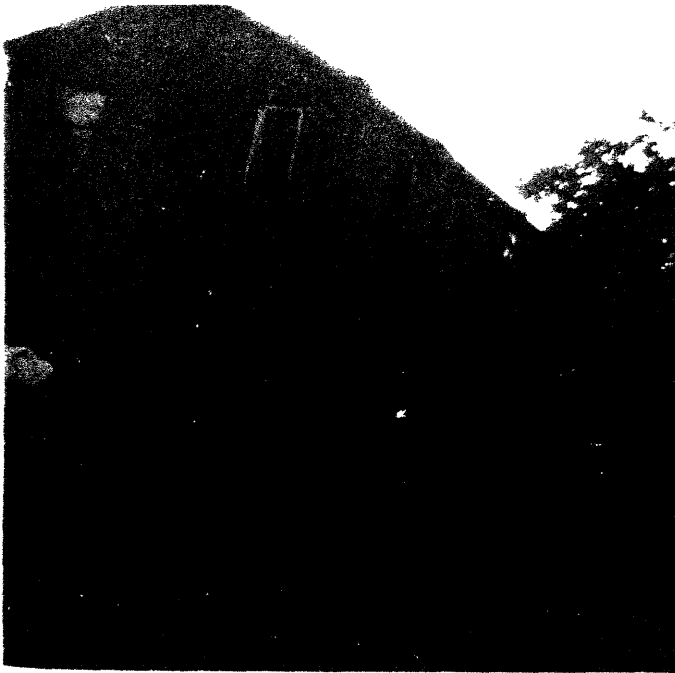


The tracks

Roof climbing



The tire pits



Abandoned house



Abandoned house

b. TRANSPORTATION. Streets, subways, and bike related areas are the important elements in the transportation system to kids. In the photo surveys we have seen the attraction to vehicles themselves, especially for M's. We have also seen class differences in s's use of the transportation system, M's preferring bikes and cars, L's preferring the subway or other public transit. But surprisingly absent in kids' city experience are visits to the transportation centers--airports, train stations, the harbor.

i. Streets. Streets are both used more and mentioned more than any other place type in the city. This is not surprising since they are the most essential means for structuring and using the city. But they also serve as activity zones for many children and conveniently define a territory a child knows well and can use freely. Nearly all streets that are considered places to go have one thing in common--they are short, which usually means traffic is less heavy. Examples of favorite streets are Laurel, Rockwell, Fairmont, Newton, and Acorn for the M's; Watson, Perry, Lawrence, McTernan, and Speridakis for the L's. Erie is the only long street that is seen as a good place to be, but it is not a busy street unlike most of the other long streets. Speridakis Terrace, the shortest of them all is a deadend street; for kids it has a particularly attractive "outdoor

livingroom" quality they like (this is even true of older kids for whom it reputedly becomes a lover's lane at night). Streets, like other neighborhood places, are "possessed" by the kids who use them; M's and L's claim different streets in different areas, and any infringement by outside groups is met with conflict, as we have seen. They are also possessed by the people who live there, especially "old ladies" who summon the police to remove the kids.

M.

I like to stay on my own street and play with friends--my friends come over and we play ball.

When we hang around on Laurel we usually play two square here right on the street cuz no cars hardly ever come down. It's a street like mine where cars hardly go down, but Pleasant we don't hang around cuz a lot of cars go down there.

Down on Tufts Street kids my age hang out--they play four square and all that.

Kids hang around Newton Street cuz it's a nice place--that's really a nice place.

We go down to Newton Street and about 50 kids hang around down there playing four square--there's mainly old women down there and they called the police--they sent the paddy wagon down there twice.

L.

There's a place called Clem's and he's on Erie Street..we go down there and down to Erie St. almost every day. Erie Lunch is there too--we get fried clams, and tonic and french fries, cake and everything.

All my friends, they just stay on Speridakis and play around and sometimes they go over to Erie St. to play with some kids. They do the same things together--they play tag and hide and seek and everything.

We used to hang on Watson St.--the girls too--we used to always get kicked off. There's an old lady there and she used to always call the cops and everything for disturbin the peace--she didn't like us sittin on her porch.

ii. Bike Areas. With their interest in bikes and bike riding, M's are always searching for good places to ride--places free

of traffic and that give some kind of kinetic thrill, like a hill or pit. Their enthusiasm for bike riding has made them critics of the Cambridge streets, especially of the surface quality: Erie is too bumpy because part of it has old cobblestones, Chestnut is full of potholes and needs repaving, Chalk and Valentine are bumpy. Nearly all M's had such complaints but not a single L.

I'd get a whole new tarred down street for all the streets so that when I ride my bicycle I wouldn't bump all over the place--the other day I even lost my keys.

The favorite bike riding place for most M's is a place they discovered by accident at Peabody Terrace. To an adult it is almost invisible, but to kids it is "bike-heaven". It is only a small fenced-in area which is blacktopped and has lanes with dividers and an area for parking bikes, but it is free of automobile traffic and was custom-designed for bikes.

M.

There's a "bicycle road" and that's way down past Western Ave. You go all the way down Putnam Ave. and you come to a big building and you go in the driveway. The bicycle road goes round and round--that's important because there's nobody yellin at you "get off the street-you can't ride on the street" and so that's fun too...I didn't know about it until a friend told me and that was last Monday.

If we could, we'd have bicycle roads all over.

I know all the good bike places to go, like down at the end of Putnam there's a bike road--you know, you ride your bikes on it--it's not quite at the end. It's a private road for bicycles--it's not big enough for cars--it has a little parkin lot for bikes down there too--it's cool down there--it's like in the projects you know, there's buildings and you go down there and ride your bikes around.

Other preferred bike roads are the route along the Charles River, the route around Fresh Pond, and even the road around Boston Common; these also are traffic-free.

Hills are important to a bike rider but are difficult to find; for Cambridgeport boys B.U. Bridge, the mounds at Fort Washington, and the "tar pits" or "Hill W" are best.

M.

Now we like going over B.U. Bridge--you go to the top of the bridge and coast down to the sidewalk.

When we're goin for a ride we ride down the giant curve by B.U. Bridge.

If you really like to have fun and you like dirt, we go to the tar pit--that's where I got a blowout about three weeks ago--I jumped over a big rock and I came up like this--big rocks--when I was layin down on the ground, I felt three big rocks inside my tire and the tire was flat.

Over at Hill "W" it's not grass, it's tar--you ride your bike up it and then like down.

We ride around "Hill W"--we used to go up in the seats and ride our bikes around in the aisles of the Stadium.

At Fort Washington we ride down the hills.

Open parking lots are another favorite area for bike riding.

M.

There's a good parking lot down by St. Johnsbury trucks. If you ever want to learn how to ride a bike, that's the place to go. You can just keep ridin in circles.

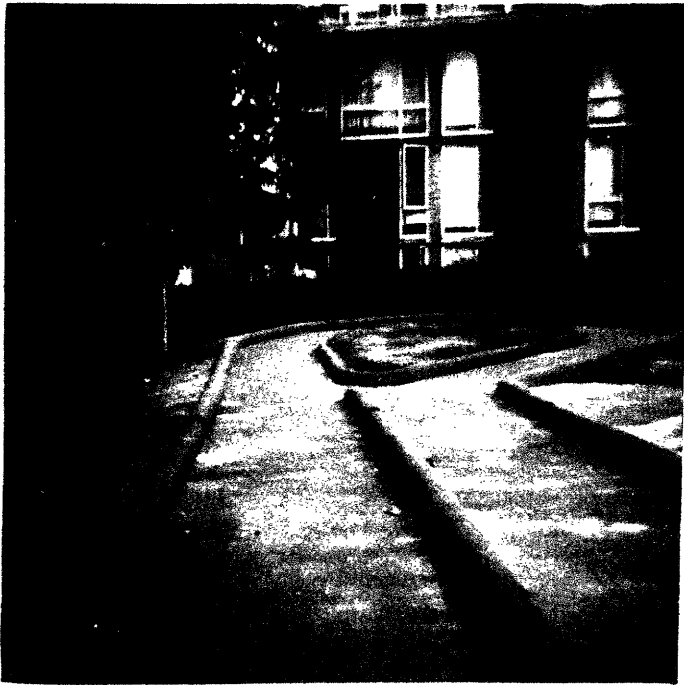
The big parking lot at Polaroid is good for bike riding, but once in awhile the guards will say 'don't come in here'--then we use the back entrance.

On Sundays it's good riding at the Stop and Shop--it's an empty parkin lot--you can go ridin around in there.

New car



Bike road



Bike road



Paul and bus with dog

Finally, bike hikes are a common adventure for M's, where kids see new places and learn how to handle their bikes in new situations.

M.

We go on bike hikes mostly. We go up Prospect Street--McGrath Highway goes snakin all over the place. Then you make it to the Felsway--well, I'm not exactly sure on it but it just snakes along until it hits the Felsway. The Felsway's another highway then you come to the Rotary. You learn to handle the bicycle a lot better if you ever go on Felsway--there's a lot of creeps drivin there, like a guy in a big Cadillac drives in the breakdown lane--he's not even sposed to be in it and he tries to get you out of it.

We just go ridin around on our bikes most of the time. We go ridin down to Harvard and go ridin around inside of Harvard University.

We go bicycle riding around the neighborhood and meet the other kids.

Last night we rode our bikes down to Harvard Square. We go to the bike shops and look around.

I'd like to take an all day trip to New Hampshire--I'd say I should make it in six hours to Manchester by bike. I have an uncle up there. I haven't slept over night yet, but that's one thing I aim to do though. This trip would give me the perfect excuse.

I'd like to go down to the Cape with my bike. I'd take a couple of friends with me and go down there if their parents would let them, but I doubt they would.

c. COMMERCE. Eating places, corner stores, and a few shopping centers appear to be the most used commercial areas in the city for the s's. Food is the main attraction, and is a magnet that gets them to go places. In fact, eating places often appeared to be key elements in structuring their city--to an outsider it often appears that they live for eating and that their day is structured around tripsto the corner store,

pizza place, ice cream store, and coke machine at the gas station. Kemps of America near B.U. was the ideal eating place for many kids: slick, modern, clean, cheap food, large wall mirrors where they could watch themselves eat, special swivel chairs they could spin on, large imitation rubber plants, a juke box, a computer quiz machine, and a cigarette machine (they love anything automated).

i. Corner Stores. Corner stores are not only convenient sources of candy and pop, but also function as social centers for many kids.

We meet over at Joe's store mostly every day.

There's another store that's important to me because I use it whenever the other store closes to get whatever I want. It's called Red's. I get ice cream, tonic, and stuff for my mother too. I mostly hang around Joe's because he knows me better and he (Red) doesn't like me hangin around and everything..I sit outside and everything and if I have money I go inside and buy somethin.

We just mess around at Sid's store..there are some kittens in the back room and we just play with them or something.

We play cards for money sometimes on Valentine St. There's a store right there. We sit there--here's the corner store and then here's the paint store and right here we play cards. We used to go back of the store and fool around--they got cardboard boxes by the millions lyin down.

The kids who live around here on Magazine St. don't have any stores--they need a closer store for groceries, tonics, and candy.

Like playgrounds and streets, corner stores are also claimed by different groups as part of their territory.

There's a store right there--all the teenagers hang there. It's Joe's...sometimes when no one's there we just sit down.

There's a store on Allston street; there are about 5 or 6 teenagers who hang around there.

On this corner there's a bad corner store right up here..the kids hang down there and it's really something and the police come down. Last winter my mother asked me to go down there to Jim's store but I wouldn't.

Corner stores also appear to be places where the kids have acquired some of their social attitudes and have learned how to take care of their money.

Here there are Jewish guys with stores--Sid's, Red's, Zaki's, Alex's--everybody knows--you just find out.

Zaki gyps you out of everything. I go up there but I don't like it. He short-changes you. Once a girl brought a Reesie cup there and it had a little green worm in it. That's true! Once I bought milk and cigarettes there and the milk was sour and the cigarettes were half empty and everything stunk. He says (in accent) "I never gyp anybody, I never gyp anybody.!" Once I bought something for 25¢ and gave him a dollar and he gave me 60¢ back! And he makes his mother work there and his mother is about 70 years old!--really an old lady. Most of the stores here are run by Jews. (This was a conversation among three kids.)

ii. Shopping Centers. Central Square, Harvard Square, and Downtown Boston (called "Town") are the most used and mentioned shopping centers for the s's though they are used less than we expected. Downtown Boston is used by M's mainly with their parents but rarely alone because of social dangers. However, L's use it frequently on their own, particularly for entertainment as will be seen in the next section.

Central Square, too, seems to be used more by L's and they are more involved in the activity of the Square at this age than M's although M's are attracted to the car dealers.

Woolworth's, Brigham's ice cream, pizza places, bowling alleys, Almy's and the YMCA are most frequently used.

M.

I mostly go with my mother to Woolworth's--so far I've gone there lots and lots of times.

We just ride around up to the Square and around.

We go up to the stores to spend the money we get.

Wild kids hang round the Square breakin windows and everything.

John was jumped right behind Woolworth's--about 15 kids were trying to get him to go in and steal somethin--if somebody saw them they'd shove him to the ground and run.

Denny got his bike taken away for the month of May because he went up to Central Square.

I don't like to go down by the Square--there's a lot of traffic down by there.

There's a used car lot with all the cars sittin around and there's a show window where you see all the cars like I saw the new Maverick there and that's where you go in to pay for it--where you give the guy your money.

L.

I spend a good time up the Square with a couple of kids. I sit in the pizza place. Some kids have their cars up there--we get in and ride around.

I go up to Central Square to buy some things for my mother pretty often. I take my allowance up there. I go up there every Saturday morning and get some junk and I go to the bank and I put some money in about every Tuesday and I go up to the Boston Herald Traveler and see what they're doing cuz that's where I used to work. I talk to Bob, that's the guy there.

We walk around and go inside the big building up there--the big tall one and ride the elevator.

We go bowlin up in Central Square--there's two places we can go--one's on Magazine Street and the other's on the other side of the Square.

We go bowlin and go in Almy's and see the fish.

M.

At Chevrolet I watch them with the cars. They don't let you go in when they bring the cars out--I mean new cars when they come in--every time they get a shipment. If I see one go by I go over there.

L.

Sometimes we go up to where Dunkin Donuts is up to the Square and there's like the WCAS--it's like a radio station--then there's a little alley here I cut through from Franklin Street and another alley comes out to it and we sometimes cut through there and buy Dunkin Donuts and sit down in there in the alley--it ain't like an alley, well, it's an alley but they have a heater in there like for people to go in there through and they have like when they play records they have music come out--it's covered over--it's a long alley like and it has WCAS, "Beneficial...something," and Dunkin Donuts and it has some fire preventive stuff and we sit on the back steps.

Harvard Square was rarely used by the s's, but they had a lot to say about it. It symbolized things they disliked; hippies, jumpings, and nothing to do.

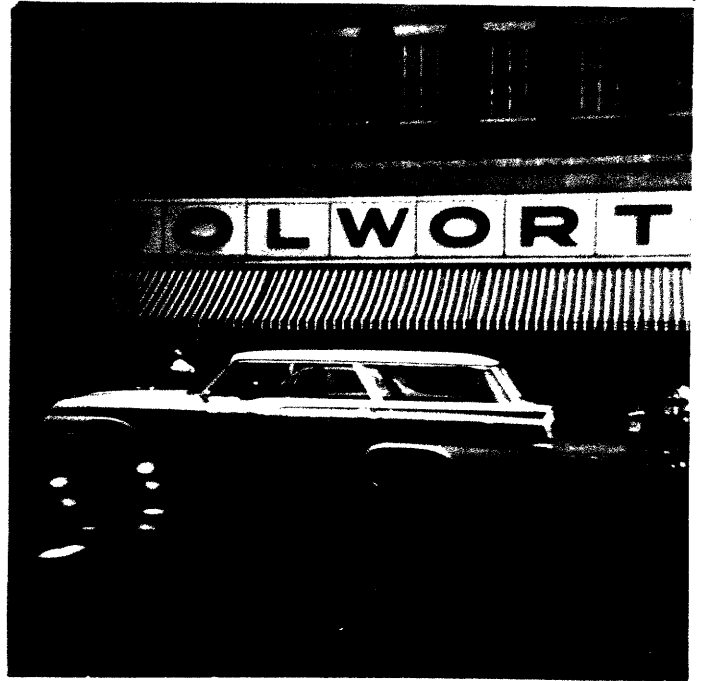
At Harvard Square there are all sorts of hippies there. If you don't watch they'll grab ye--take your money and everything. Cambridge is in bad shape.

There's not much down there at Harvard Square.

All there is is people walkin by..
I just ride by with my friends on bikes--there isn't much to do there.

Just last night I was up to Harvard Square with my aunt and uncle and there was all these hippies like a girl in a tent, down to here, jumping around, doing weird dances. My grandmother went to see a movie and they were doing a rain dance outside the theater. They were climbing lamp posts.

Woolworths

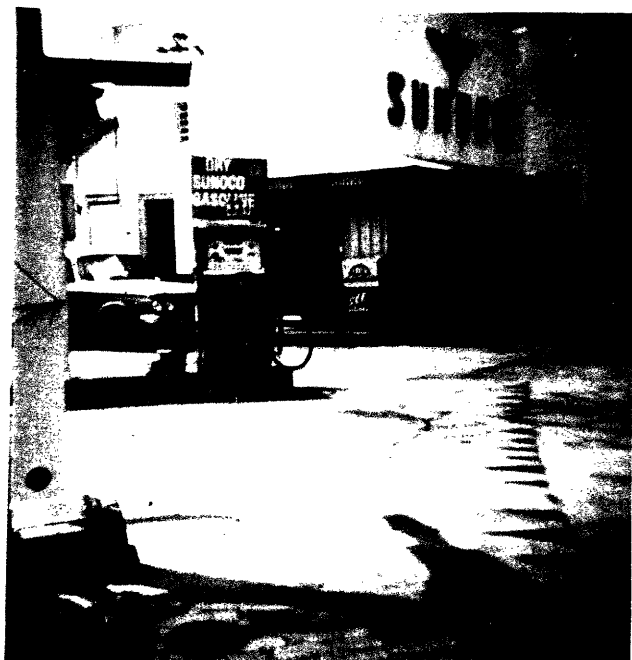


Mayflower Spa



Big Joe's Subshop

Kemps



Sunoco gas station



Brighams

5. CORNER STORES, EATING PLACES, AND SHOPPING CENTERS (photos by s's)

We go ridin down to Harvard and go ridin around inside of Harvard University--not too often--about once a month. We go inside Harvard and over to the Cambridge Common and we watch the hippies play their bongos and everything. Dirt really--really dumb people, like long hair. I heard they were tryin to bring back the old days like Bethel and the Lord with long hair. I think that is what they're tryin to do--long gowns and everything.

Around Harvard is where the hippies are--I don't like hippies.

I don't like to go to Harvard Square that hot cuz the kids up there aren't like me--when we go up there they jump all the kids.

I never went to Harvard alone cuz they jump ya and everything.

The only thing I do there is sit and look at the hippies

Harvard Square had something for only one subject (an M)--
its shop windows:

I just look around, look in shops. It's really interesting and in one there's a WW I uniform--there's a good way to identify it--there's all these people lookin through these weird glasses. There's real good stuff in one part of the window, like a sofa, one of those big but light sofas--oh, just everything and the prices are ridiculously high. All kinds of weird hippie shops--they're crazy. The bank, Harvard Trust, they usually have something interesting--you know every coin--that's somethin interesting but hippie clothes--that's pretty weird...what could you learn from them except how to be sloppy pigs.

d. ENTERTAINMENT AND RECREATION. Fenway Park, home of the Boston Red Sox, is almost universally liked and frequently visited by all subjects. Usually they walk over with their friends, but are sometimes taken by their parents or other adults. Except for the baseball games at Fenway Park, L's seem to engage in more commercial recreation and entertainment

activities than M's. This was not expected; we thought L's would prefer less structured and more adventurous activities. However, it appears that L's are more gregarious, and like large group activities, especially those that have a special place--a "hangout": Bowling, YMCA, Boston Gardens (for wrestling and hockey), the Washington Street penny arcades, the summer "teen center" at Blessed Sacrament Church with its pool tables, ping-pong tables, and candy machines. One of the most interesting findings is the attraction L's have to "shows". M's attended movies with their parents but none mentioned going with their friends. However, nearly all L's spoke of their trips--with friends only--to the "shows" on Washington Street. The likely explanation for this is that M's are afraid to go to the places where the theaters are: Harvard Square and Boston (Central Square did not have a theater at that time). It may also be a reflection of M's interest in being outdoors rather than inside in the summer time.

L.

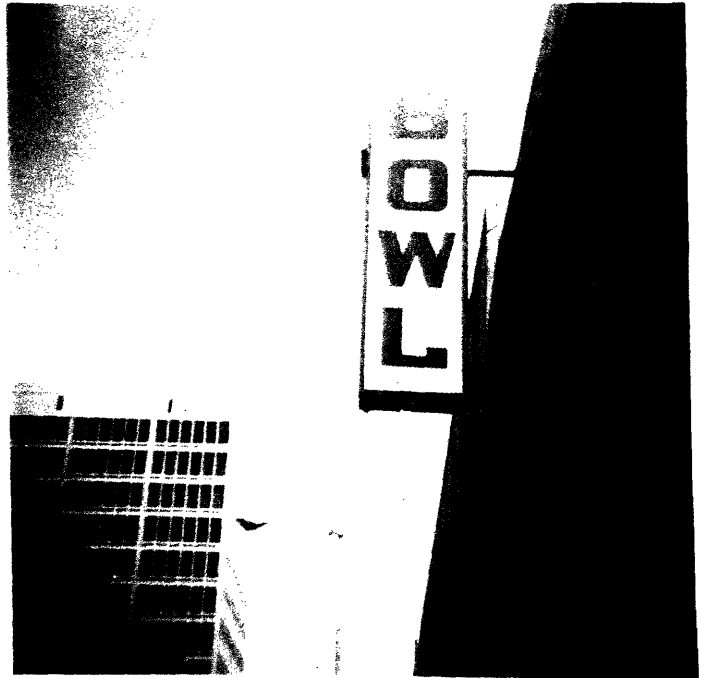
We go to the movies downtown and sometimes we go to the penny arcade--that's where all the pinball machines are.

If you have money you can go to a show, go bowlin, play games. There's nothin to do beside go downtown.

I used to hang down there at night on the Common and on that street where the shows are.

I take the subway to Park Street and go to shows at least once a month.

Bowling alley



YMCA



Fenway Park

When I'm alone I like to go to the show because when I'm with some kids they start actin up...Center, Paramount, all kinds--any theater--Sacks...

Once in a while when I go to see the movies I go to the Savoy Theater. I take the train, get off at Park Street, go upstairs, and there's a street that you come out on and you go like two or three streets down and I see what's playin and if I want to go.

We go with each other over to the Park Street and we go to movies every time there's a good movie there.

e. INSTITUTIONS. Although several institutions have things that would interest kid's, few of these are known about and used by them. Those that are used, are used in unexpected ways not intended by the institution. There are three exceptions: The Science Museum, their own school, and the church. The Science Museum is well-liked, but rarely visited by kids on their own; normally they are taken by their schools. School, on the other hand, is generally disliked by the kids. Church one would guess they would also find boring, but they withhold judgement out of respect. The curious finding is that L's photographed almost four times as many such institutions as M's. It will be seen later that they also valued them more in other research methods. It would appear that the most-used institutions are disliked but valued! Was this because they thought they should like them? Was it because the imposing structures that usually house such institutions are more attractive to L's than M's?

The institutions where kids seem to have most fun--in unconventional ways--are MIT and B.U. L's in particular are drawn to these places. Attractions are the fields, gyms, recreation rooms, watching guys play sports, or the "hippies", and the thrill of sneaking in somewhere they aren't supposed to go.

M.

We like to go to MIT--we ride next to the tracks. Sometimes we go to the tennis courts; there are bushes all around and inside there's a little path. We watch the guys play tennis.

We go down and get the tennis balls down there at MIT. There's a big fence down there and when they hit em over the fence we can pick em up and keep em.

Sometimes we go riding over to the rubber pits near B.U.--those pits they use for pole vaulting. We jump in those or jump over hurdles.

Once I went over to MIT and helped this kid with some wires over there. He was our neighbor and I and another kid helped him to pull wires out of this computer thing.

L.

At MIT we go into the cafeteria to buy stuff. Then we go in the big building with the guard--nothin we can't pull. We say my uncle's in here and my uncle's at MIT student or my mother's a teacher here. One day we looked at the list of teachers. We said my aunt is Mrs. Stonewall at 206 in the Burton House (laugh)--We had that guy going daffy. He said sign your name here fellows--we signed Henry Schmidt or something like that and then went around the building--rode the elevator.

Sometimes I go over to MIT to look for balls at the tennis courts or play in the rubber pits. They're right in the middle of the field. They have two baseball fields there and in the winter they have this big skating rink for guys to play hockey.

We watch the guys play baseball, football, tennis and sometimes we go lookin in the bushes and find a tennis ball--I've found quite a lot.

We go over to MIT and fool around. You know outside where they got the mat business you jump on--we go up there and fool around on that. It's way down where the baseball field is. We used to go down there a lot until they kicked us out so now there's

nothin to do--we just hang around.

Sometimes we go over to B.U.--
Just in the gym to get a drink
of water, get a coke in the
coke machine while we're at
the trestle.

Sometimes we go over to MIT and
go in the TV room and go in this
here room with all kinds of
games in it--we go in the theater
and go on the track. They kick
us out a lot. We fool around,
go in the gymnastics room there,
you know--we have fun.

At MIT we go in the gym and
play, play the pinball machines,
go in the auditorium.

At MIT we generally go inside
the buildings like the auditorium
and watch the guys play their
instruments, watch em ballet
dancing in the theater. The
main buildings--it shows you all
the ships and everything--you
look around at the ships--they
let you go around.

At the B.U. Dorms we just hang
around and watch all the hippies
walk by going into the school
buildings.

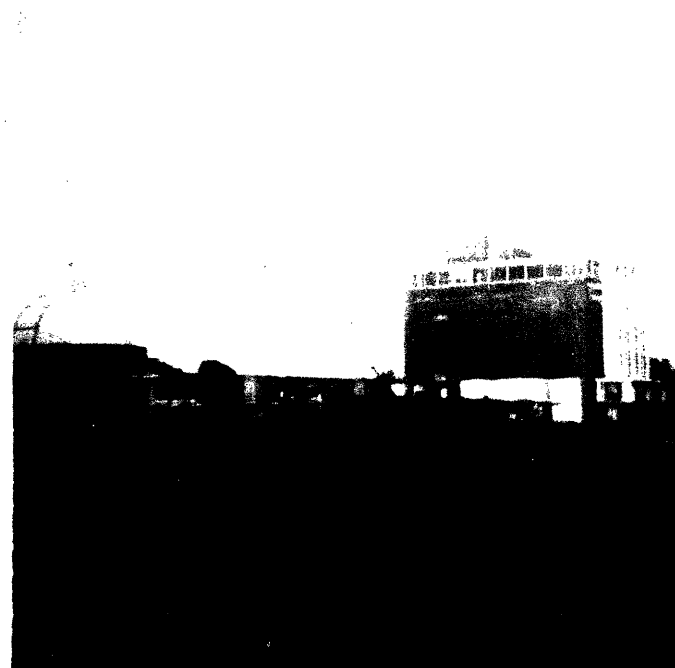
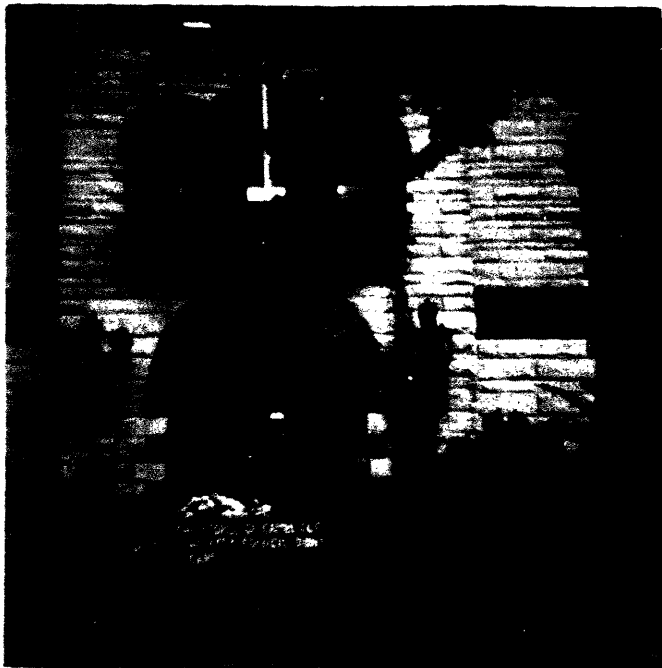
I went shoe shinin there at MIT
twice, three times a week. On
the steps of the front part..
it gets tiresome and I got only
about 25¢ an hour.

In the gymnasiums at MIT we went
in the smoke room and started
goofin up the fire extinguisher,
shootin the fire extinguisher
about 8 feet through the air,
duckin behind the chairs. One
kid stuck out his thing--'I'll
get you!'

Police station



Post Office



Cambridge City Hall

Science Museum

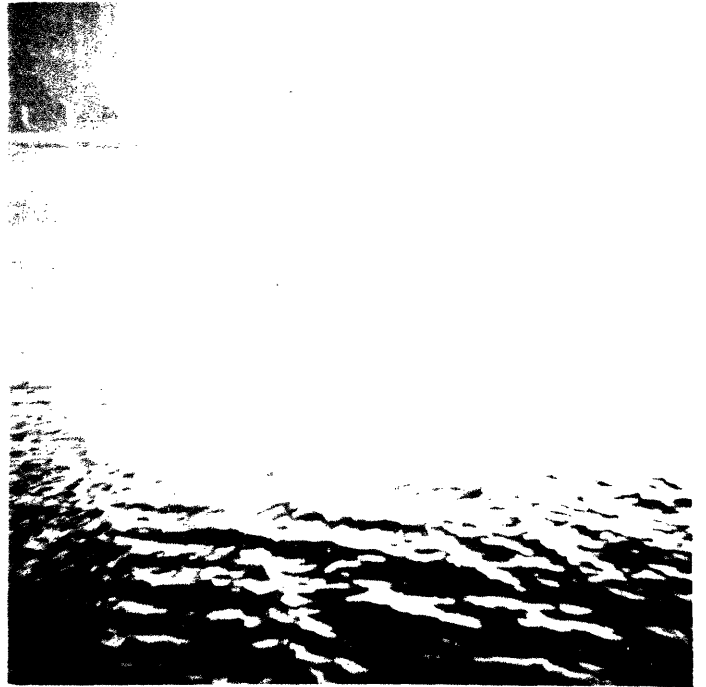
Near MIT tennis courts



MIT baseball fields



Blessed Sacrament School



Boston University

f. LANDMARKS, MONUMENTS, AND HISTORIC PLACES. With the exception of Fort Washington, historic places are seldom visited or even known about by the s's. National monuments like the Empire State Building and Statue of Liberty were frequently mentioned, but local places were all but unknown. There were some mentions of places like the Paul Revere House, Longfellow House, John F. Kennedy Home, or Bunker Hill, but none were mentioned with any consistency. This is not surprising since most "historic" places have no activities connected with them that would attract children--an important quality in their use of any place. The picture is different for buildings that might qualify as city-wide landmarks, namely, high buildings. These are often mentioned and used by both groups, though L's photographed them twice as often as M's. For kids it is not so much that the building is a landmark, but that one can go inside, ride the elevators, and look out from the top: again, attraction to movement and to high places. Prudential Tower is most commonly mentioned here, possibly because it is visible from many parts of Cambridgeport. This is followed by the Fenway Motor Hotel on Memorial Drive and the Cambridge Gas and Electric Building in Central Square. Other s's talked about lookout towers in Medford and Somerville.

We went to the top of the Prudential--it's too stuffy up there though--boy it was hot but it was a good view--you can see everything. There's this thing ya can put a dime in and ya can see close up--I didn't find my house really but I found the Shell Station and the Fenway Hotel.

Prudential's important cuz you can go inside there and go on top and look through those microscopes.

We went to the Prudential building--locked up our bikes and went in. One time we brought money and went up to the top and ate.

Me and my friend usually walk to the Prudential. When we walked the first time we didn't know how to get there, we just followed the Prudential. We walked up side streets, down streets, till we finally saw it. We couldn't go to the top cuz it cost money.

We go over to Prudential. You know why we go down there--we like to play on the elevators and all that. They don't let us but we just go in and go to different floors.

When the Fenway Motor Hotel was being built me and my friends went down and used the elevators and went over to the swimming pool. We kinda snuck into the elevators and went up and there's a pool there. We come down the parkin road (in garage) and take the elevator up to the roof--that's really fun though cuz we go up in the elevators to the roof and one time we said that if the man catches us we'll have a fake name and everything.

Fenway Motor Hotel--we love that! Cuz, man, we light firecrackers there inside the garage--BOOOOOOM! and we go down there and fool around like on the elevators.

We walk around inside the big building up at the Square--the big tall one and ride the elevator.

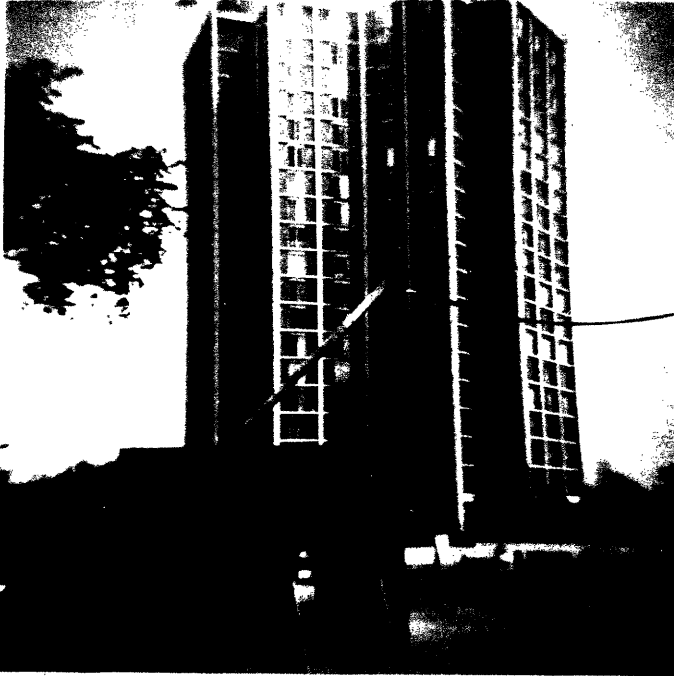
I'd like to visit the State Street Bank and the Prudential.

I'd like to visit the John Hancock Building, but I can't go there now cuz there are lots of important people there and they don't like to have kids around.

There's a nice hill in Medford and right at the top of it there's some kind of tower and from the top of it you can see the whole area--it's made out of granite and it's about two stories high and it has asphalt shingles on the roof. Once I threw a super ball out of the tower and tried to get it to my cousin, but the thing bounced off a rock and went flyin down below the hill.

There's a place in Sommerville--a tower up there to commemorate a fort that defended Medford during the Revolution. The fort was torn down--it wasn't defeated by the way--and they built this tower. I usually try to go there on a once-a-week basis.

1010 Memorial Drive



New apartment building near Central



888 Mass. Ave



Fenway Motor Hotel

Negro church



Church on Magazine St.



Baptist Church near the Square



Blessed Sacrament Church

Cambridge Gas and Electricity



Statue outside the rectory



Statue by convent

g. INDUSTRY. Industries are among the least used places by kids although Cambridgeport has a large industrial area.

There are almost no mentions of kids' involvement with industry itself, for instance helping workmen or going inside to see what it is like. Such activity is discouraged both by the police and by the industries. We do sense, however, that kids are interested in what factories are doing and in watching men at work. In fact, photographs of factories and construction were frequent but there were group differences; L's took almost three times as many pictures of factories as M's, whereas M's took over twice as many pictures of construction. Although there are few direct connections with industry, many of the wastelands settings are related to industry such as the tire pits. Similarly, factory parking lots are used for bike riding, as we have seen. A simple drink of water is often their main link with industry:

We watch the trucks and get a drink of water out of the fountain down there. There's a water fountain in the St. Johnsbury truck yard and they let you get a drink. They know we're playin in Peter Park.

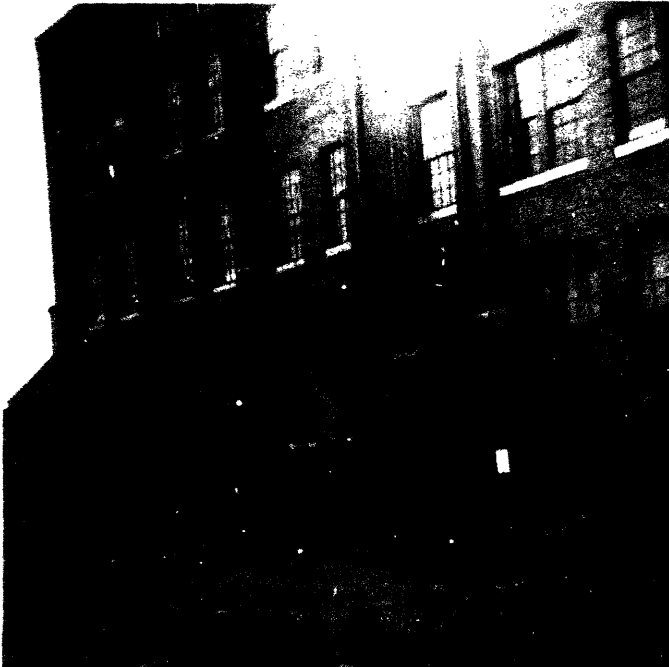
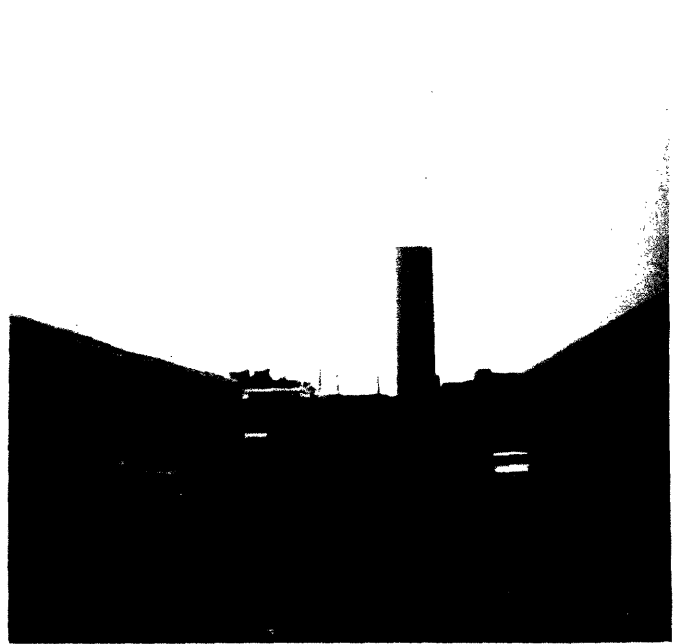
I'd like to see all the different machines in the newspaper factory--The Globe. I went there just once with the YMCA. They let any kids who want to come...there are big machines.

We go down to St. Johnsbury to get a drink of water and buy tonic or somethin. Inside they have I think it's a coke machine. They have candy machines--they don't mind. We just ride around on our bikes.

Construction by the River



St. Johnsbury truckyard



Nabisco Company



Charles River Press

There's a place called Clem's and he's on Erie Street. He fixes autos and lets us get a drink and fool around with his dog Shadow. Sometimes we find keys or something in the driveway and give them to him and he gives us money.

Some industries were liked because they gave kids leftover products. For instance the Myerson Tooth Company gave kids teeth at Halloween for false teeth and the Charles River Press gives them paper.

There's a Fanny Farmer Company right down there. Sometimes when we go there we ask the man on the truck if he has any candy left and sometimes he says no--if he has any left he gives us each some because it's all left over from the truck.

Industries' large truck yards are good for more than bike riding, too:

Stone and Forsythe, they got a big tar place back there. Some kids play baseball there.

We play games at St. Johnsbury-- hockey in the winter-time. There's a platform like and then one lower for the trucks to come in but when the truck's not there, then we play hockey cuz there's a big wall like.

We got kicked out of St. Johnsbury a couple of times cuz we were on top of the trucks.

5. SUMMARY OF CHILDREN'S USE OF CITY PLACES

We see then that although kids generally value city travel, most of their city experience takes place in the neighborhood, especially for middle class kids who travel less widely by themselves than working class kids. They have only limited

encounters with the larger city, even though there are many places that would be attractive to them. Most kids prefer to travel without adults, but there are class differences in preferred travel modes, middle class kids preferring the freedom of bikes, but working class kids opting for the more social subway and bus. Social conflict is a barrier to place use in many cases, and is often greatest inside the neighborhood, where places are claimed by their residents. In most cases, places outside "claimed territory", such as industrial areas or wastelands allow freer use by unfamiliar groups.

Activity is the necessary ingredient for attractiveness in any place. Certain activity themes run throughout their activities: love of motion, of food, and of climbing and height, their appetite for which seems unlimited. Kids' activities are by no means limited to playgrounds; they are in fact attracted to a variety of place types. Some differences in place use between social groups are apparent. Although open space and transportation related places are the top use categories for both groups, L's prefer the active social setting that playgrounds or streets provide, whereas M's are more attracted to open, unstructured wastelands or natural parks, except for sports fields that are more used by M's than L's. Water areas though highly valued, are not frequently used by kids alone because often these places seem too difficult

to reach or kids don't know about them. Many settings like the harbor are virtually unused by them. Similarly, places specially designed for bike riding are liked but difficult for kids to find.

Games and automated devices that allow kids to manipulate and respond are particularly entertaining, especially for the L's who actively seek such entertainment centers. Films are also an important form of entertainment, but again mainly for the L's. Spectator sports are liked by all, but their choices lack variety.

Local institutions like MIT, B.U., Harvard provide little for kids to do officially, though they find much to do there illicitly. Such institutions are resources that have a responsibility to the neighborhood and that have special facilities that kids would find particularly appealing. Similarly the police department, fire department, Post Office--government in general--could provide interesting activities for kids. Local history is all but unknown except for that which has been acquired in play in a historic place--Fort Washington.

Industries, like institutions, have done little for the community, especially for the kids. No jobs are provided and there are few associations with workers, the process of work, or with the products. Many of kids' associations with industry

are thus against the rules, making them look like--or turn into--delinquents.

Policy implications of these findings are presented in Part III.

C. CHILDREN'S CITY KNOWLEDGE

How much do children know about different types of places in the city? What kinds of places would they like to know more about? Are there relations between children's knowledge of city places and the extent of their travel? These questions are the subject of the first section of this part. In the second section, children's knowledge of city maps will be investigated.

1. KNOWLEDGE OF PLACES IN THE CITY

To evaluate children's knowledge of city places, two methods were used: place recall and place recognition.

a. PLACE RECALL. In this method, children were simply asked to name as many places as they could recall in about fifty different place categories; for example, categories included places to see professional sports, places to swim, foreign neighborhoods. (see Appendix I.B.8. for complete list and details of method). Children were pressed to name as many places as they possibly could. The categories were selected to evaluate s's knowledge of places with differing social character, activity choices, and physical settings. (see Appendix II.D. for social, activity, and form classification of place categories.)

Consistent with our findings on city travel, working class boys could usually name more places for each category than could middle class boys, though differences between the two groups are not large.

9. AVERAGE NUMBER OF PLACES KNOWN BY EACH SUBJECT

	<u>Middle class</u>	<u>Lower class</u>
TOTAL MENTIONS	87	91
MENTIONS PER CATEGORY	1.5	2.0

When place mentions are analyzed by the social, form, and activity settings, it is seen that more places are known (or at least reported) where the activity dominates than in the other two classifications. Least is known about places of differing social character. L's mention more places than M's, particularly for activity related places. The exception is in the form category where the two groups are almost identical.

10. KNOWLEDGE OF PLACES DIFFERING IN SOCIAL, FORM, AND ACTIVITY CHARACTER.

	(average no. of places mentioned by each s for each place category)	
	<u>Middle class</u>	<u>Lower class</u>
SOCIAL	.89	1.0
FORM	1.6	1.5
ACTIVITY	2.0	2.7

When the activity place types are analyzed by the degree of activity (passive or active), places that are active (e.g. catch animals) are more frequently known than places with more passive activity (e.g. see movies). L's also mention more places here than do M's, particularly for places of the active type.

11. KNOWLEDGE OF PLACES WITH DIFFERING ACTIVITY CHARACTER

	(average no. of places known by each s for each placetype)	
	<u>Middle class</u>	<u>Lower class</u>
PASSIVE	1.8	2.1
ACTIVE	2.4	3.2

Total variety of places mentioned by each social group was also analyzed. For both groups as a whole, activity related places have greatest average variety of mentions, and places of differing social character, least. However, if results are compared for M's and L's, this holds only for the L's, M's mentioning greatest variety for form related places. In contrast to preceding findings, L's mention greater variety of places than M's only for activity related places; M's mention greater variety of places for both the social and form classifications. We might conclude from this that since L's individually mention more places in each category but less variety as a group (except in activity) that there is greater similarity in their city experience of places having differing social and form character than for the M's.

Subjects' knowledge of the selected place types was also analyzed by functional classification used in the place use analysis. S's know most about commercial, industrial, entertainment and recreation, and open space places; least is known about residential areas, buildings and monuments, and institutions. In general, these findings correlate with the frequency with which these places are used, reported earlier. However, open space and transportation are not the top categories here. Open space drops because few wastelands and natural areas are known; active recreation areas (water, sports fields, parks) are mentioned twice as much as these. The interview design was responsible for the drop in transportation; nothing was asked about streets, which in the place use analysis are the most frequently used. Knowledge of industrial places is relatively greater than use of them. This may be true partly because Cambridgeport is near a large industrial district and consequently children are exposed to them; use of such areas is limited because there isn't much to do there and industries and police discourage such activity. Differences in quantity of mentions by each social group are significant for three place types: L's mention more than M's for commerce and for entertainment and recreation; M's mention more than L's in wastelands. These differences correlate with the differences in place use we have already noted.

12. AVERAGE NUMBER OF PLACES KNOWN FOR EACH PLACE
TYPE BY EACH SUBJECT

<u>Place Type</u> (ranked by frequency of mentions (total) per place)	(average number of mentions per place per s in each place-type category)		
	<u>Middle class</u>	<u>Lower class</u>	<u>Total</u>
1. COMMERCE	2.4	3.5	2.9
2. INDUSTRY	2.3	2.2	2.3
3. ENTERTAINMENT AND RECREATION (non-open space)	2.0	2.7	2.3
4. OPEN SPACE	2.0	2.0	2.0
Active outdoor recreation	(2.8)	(3.1)	(2.9)
Natural open space	(1.5)	(1.3)	(1.4)
Wastelands	(1.5)	(1.0)	(1.3)
5. TRANSPORTATION	2.0	1.8	1.9
6. INSTITUTIONAL	1.7	1.8	1.7
7. BUILDINGS AND MONUMENTS	1.7	1.4	1.5
8. RESIDENTIAL AREAS	1.2	1.1	1.2

NOTE: Each place type category contains several subcategories; frequencies reported are the average frequency of mentions for each subcategory.

Average variety of mentions for each place type parallels number of mentions; thus, if s's could name more places individually they also named a greater variety of places as a group.

If number of mentions for individual place types (i.e., the original fifty categories) is analyzed, the specific places that s's knew most about are found to be in the top ranking general categories of open space, entertainment, and commerce: these were sports areas, swimming places, water areas, movie theaters, places to eat, and large stores. Specific places that were least known were primarily different types of neighborhoods: foreign, poor, rich, Jewish, nice, or slum neighborhoods. Many types of institutions and buildings and monuments (historic) were also near the bottom: these were places for concerts or plays, places to see paintings or sculpture, to find out about local history, and historic buildings.

Analysis of relations between number of mentions and distance of mentions from Cambridgeport shows no significant correlation; places that s's know most about are not necessarily close to home or far from home, with the exception that mentions of neighborhoods s's didn't like (poor, black, foreign, etc.) were far from home. Differences in place knowledge cannot be explained by city form either, that is, the frequency such places occur in the local area or city. Many of the most-mentioned place types are not common in Cambridge (e.g. movies, water areas) and some of the least known place types are nearby (e.g. neighborhoods of differing social character,

institutions, historic places). Knowledge of places is more a function of children's interest and their active involvement with the city than of geographic location or exposure of places.

Which of the places would s's like to know more about, and which do they most like to visit? Activity related places again dominate, as in their place knowledge. S's would like to find out most about activity related places and would like to learn least about neighborhoods of different social groups.

13. GENERAL PLACE TYPES S'S WOULD LIKE TO KNOW MORE ABOUT

<u>Place type</u>	(average no. of positive choices per specific place category)	
	<u>Middle class</u>	<u>Lower class</u>
ACTIVITY	37%	59%
FORM	17%	34%
SOCIAL	11%	22%

Results for s's likes and dislikes parallel their desires to learn more; activity related places are most liked and neighborhoods of differing social character are least liked.

14. PREFERENCE FOR GENERAL PLACE TYPES

<u>Place type</u>	(average percentage of s's who prefer places within category)	
	<u>Middle class</u>	<u>Lower class</u>
LIKE: Activity	47%	60%
Form	27%	50%
Social	12%	33%

<u>Place type</u>	<u>Middle class</u>	<u>Lower class</u>
DISLIKE: Activity	17%	14%
Form	18%	20%
Social	25%	35%

A curious finding is that L's consistently want to learn more and like more than M's; this tendency will be seen in other results reported in the next section as well. Is it because L's are less critical or selective? Are they more interested or more open? Do they think they're doing a better job by picking more things?

The most interesting finding is that s's seem to want to learn about what they already know most about and that they like places they know best. Not only is this true for the general "activity, form, social" classification, but it is also true for the more specific place categories. Specific places that s's want to know more about are generally places they already know most about: entertainment and recreation, commerce, transportation, and open space. Exceptions are industry, which ranks high on knowledge but low in value, and institutions which rank low in knowledge but high in value. Likewise, buildings and monuments and other neighborhoods rank low in knowledge as well as value.

15. SPECIFIC PLACE TYPES S'S WOULD LIKE TO KNOW
MORE ABOUT

(average % s's who want to
learn more about each place
type within the category)

<u>Place type</u> (ranked)	<u>Middle class</u>	<u>Lower class</u>	<u>Total</u>
1. ENTERTAINMENT AND RECREATION	30%	58%	42%
2. INSTITUTIONS	34%	52%	42%
3. COMMERCE	28%	53%	39%
4. TRANSPORTATION	33%	47%	39%
5. OPEN SPACE	25%	45%	34%
Active outdoor recreation	(44%)	(68%)	(55%)
Natural open space	(12%)	(45%)	(27%)
Wastelands	(12%)	(15%)	(13%)
6. BUILDINGS AND MONUMENTS	20%	42%	30%
7. RESIDENTIAL AREAS	11%	24%	17%
8. INDUSTRY	10%	19%	14%

Subjects' place preferences parallel their desire to learn more, with the exception of Institutions; although s's say they want to learn more about Institutions, they are not highly valued.

Places that at least 50% of the subjects wanted to learn more about, that is, that they would know where more such places are located, were:

16. PLACES S'S WOULD LIKE TO LEARN MORE ABOUT

	<u>% of s's</u>
Bike roads	72%
Water areas	61%
Places with animals	61%
Auto showrooms	61%
Professional sports	56%
Places where you can learn about science	56%
Outdoor sports areas	56%
Libraries	50%
Movies	50%
Famous people's houses	50%
Nice churches	50%

These places are also most liked, with the exception of three types of institutions: libraries, churches, and places to learn about science. Might s's have said they wanted to learn more about them because they thought they should--because it was expected of them--rather than because they wanted to?

Places that s's were least interested in learning about (less than 10% of the s's) were other neighborhoods, industry, and wastelands. It is interesting that wastelands, a fairly important category in place use as we have seen, are not highly valued here. Even though kids spend time in them and have fun, they don't think of them as places to like or to learn more about, in fact it will be seen later that they are critical of all areas that lack neatness.

17. PLACES S'S WOULD LEAST LIKE TO LEARN ABOUT

	<u>% of s's</u>
Slums	0
Black neighborhoods	6%
Jewish neighborhoods	6%
Poor neighborhoods	6%
Junk yards	6%
Vacant lots	6%
Abandoned buildings, ruins	10%
Factories	10%
Wild places with rocks, trees, and brush	10%
Foreign neighborhoods	10%
Hippie areas	10%

Top dislikes include the same places but with the addition of some institutions and monuments: places for concerts and plays, sculpture and paintings, and historic buildings.

b. PLACE RECOGNITION. In the second method for evaluating boys' knowledge of different places in the city, s's were asked to identify color pictures of 135 different places in Boston and Cambridge. Places were selected to represent a variety of form and activity types. Half of the places were in Cambridge and half were outside Cambridge. (see Appendix I.B.9. for details of method). We expected that L's would recognize more places both inside and outside Cambridge. However, results indicate the opposite; M's had somewhat higher recognition rates. Almost three fourths of the recognized places were local for both groups.

18. AVERAGE NUMBER OF PLACES RECOGNIZED

	<u>Middle class</u>	<u>Lower class</u>
LOCAL (Cambridge)	50	47
CITY (outside Cambridge)	28	20
TOTAL	78	67

It should be noted that although M's recognized more places (on the average), their scores covered a much wider range than those of L's; M's scores ranged from 39 to 119 (out of 135), whereas L scores clustered in the lower middle, ranging from 58 to 91.

To find out whether s's knowledge of places was influenced by activity and form characteristics of places, places were classified by general activity and form type and by specific place type as in place recall. General categories were:

- 1a. NON-SYMBOLIC FORM: Places where the dominant quality of the settings is their physical form and which are likely to be remembered for this reason.
- 1b. SYMBOLIC FORM: Same as "1a" except form that has special cultural significance, for example a church steeple or the "institutional" or "historic" styles.
2. ACTIVITY: places where the activities (what you can do there) are likely to have strongest impact and which are likely to be remembered for this reason.

3. ACTIVITY AND FORM: places where both activity and form are dominant and which are likely to be remembered for both reasons.

We expected that places with form dominance would be least well-recognized by the children, but that places with both form and activity dominance would be best recognized, the form acting to reinforce the activity character. Symbolic form we thought would be better recognized than other form, because of its cultural significance. As in the previous results this analysis indicates that for both local and city places together, activity appears to be an important characteristic in determining whether s's will know a place. Places were more recognized that were associated with activity, however the addition of form did not make an appreciable difference. M's recognized more than L's except for "activity" places, where the groups were identical.

19. RECOGNITION AND GENERAL PLACE TYPE

	(% places in each category that are recognized)	
	<u>Middle class</u>	<u>Lower class</u>
FORM	46%	33%
ACTIVITY	67%	67%
ACTIVITY AND FORM	71%	65%

Surprisingly, symbolic form is found to be much less recognized than non-symbolic form.

20. RECOGNITION OF SYMBOLIC AND NON-SYMBOLIC FORM

	(% places in each category that are recognized)	
	<u>Middle class</u>	<u>Lower class</u>
NON-SYMBOLIC FORM	58%	44%
SYMBOLIC FORM	35%	21%

When recognition is compared for local and city places, it is seen that recognition of local places is consistently higher than for city places and that M's recognize more than L's except for local activity. Form makes a significant difference in recognition of both local and city places; local places with "form and activity" are best recognized, but city "form and activity" places are less well recognized than places with activity alone. This result is most likely caused by the particular set of pictures in the "activity" group for the city; although places were selected randomly from a larger set, the resulting sample for this category appears to be easier to recognize than places in other categories because most of the resulting places were shopping centers.

21. RECOGNITION AND GENERAL PLACE TYPE: LOCAL AND CITY

	(% places in each category that are recognized)			
	<u>Local</u>		<u>City</u>	
	M	L	M	L
FORM	62%	54%	35%	19%
ACTIVITY	70%	73%	57%	52%
ACTIVITY AND FORM	89%	83%	50%	44%

Analysis of recognition by specific place type shows few differences between classes. Relative ranks of place type categories for recognition are similar to ranks for knowledge of places described earlier. Entertainment, industrial, commercial, transportation, and open space places are all recognized more than 50% of the time. Institutions, residential areas, general city views, and buildings and monuments are recognized less than 50% of the time.

22. RECOGNITION AND SPECIFIC PLACE TYPE

<u>Place type</u> (ranked by total recognition)	(% places recognized in each place type category)	
	<u>Middle class</u>	<u>Lower class</u>
1. ENTERTAINMENT	78%	70%
2. INDUSTRIAL	74%	75%
3. COMMERCE	65%	64%
Eating places	(82%)	(88%)
Other commercial	(63%)	(59%)
4. TRANSPORTATION	62%	58%
Bridges	(89%)	(75%)
Subway, railroad	(58%)	(53%)
Streets	(53%)	(55%)
5. OPEN SPACE	60%	57%
Parks	(58%)	(70%)
Wastelands	(60%)	(57%)
Water	(63%)	(44%)

6. INSTITUTIONS	47%	38%
Schools, museums	(50%)	(40%)
Government	(47%)	(38%)
Churches	(39%)	(30%)
7. RESIDENTIAL AREAS	50%	35%
8. GENERAL VIEWS	50%	31%
9. BUILDINGS AND MONUMENTS	42%	30%
New buildings	(60%)	(52%)
Landmarks	(38%)	(26%)
Historic	(38%)	(23%)

Of the most-recognized places, three fourths of them are in the Cambridgeport area. The only exceptions are ten city-wide landmarks, most of which are not local:

Prudential Tower
 Science Museum
 View of Boston from the air
 (with Prudential in the view)
 Harvard Square
 Frog Pond in the Common
 Logan Airport
 Revere Beach
 Fenway Park
 Filenes
 Charles River

Of the least-recognized places (less than 20%) all are outside Cambridgeport; most of these are institutions or monuments, for example Symphony Hall, Harvard College, Christian Science Church, Old North Church, Granary Burial Ground, New Boston City Hall, Mass. General Hospital; exceptions are three views of the Harbor and two views of the Haymarket, which also were seldom recognized.

c. RELATIONS BETWEEN CITY KNOWLEDGE AND TRAVEL. Do boys who travel in the city more extensively also know more about the variety of places in the city? We would expect this to be true, since travel itself would seem to be the best way to learn about the city. When place recall scores are compared with s's travel ratings, s's who travel more widely both alone and with parents (L) are also found to recall more places.

23. RELATIONS BETWEEN CITY KNOWLEDGE AND TRAVEL:
PLACE RECALL

<u>Extent of Travel</u> (number of places)	(average scores)	
	<u>Middle class</u>	<u>Lower class</u>
HIGH (more than 65)	-	101
MEDIUM (50-65)	93	95
LOW (less than 50)	69	75

When the same data are analyzed on a subject by subject comparison using the Spearman Rank Correlation statistic the correlation is found to be very significant (significant to the .01 level; $r_s = .755$; necessary $r_s = .564$).

Analysis of relations between recognition of places and extent of travel yields similar results. Although M's have higher recognition scores than L's, s's who are more widely travelled, have higher recognition scores.

24. RELATIONS BETWEEN CITY KNOWLEDGE AND TRAVEL:
PLACE RECOGNITION

<u>Extent of Travel</u> (number of places)	(average scores)	
	<u>Middle class</u>	<u>Lower class</u>
HIGH (more than 65)	115.5	74.8
MEDIUM (50-65)	78.4	67
LOW (less than 65)	72.7	63.8

Spearman's Rank Correlation statistic shows a significant relationship between city knowledge and travel here, as well (significance = .05; $r_s = .44$; necessary $r_s = .359$).

It should be noted that relations are less significant between city knowledge and extent of independent travel by kids than between city knowledge and total travel (travel with adults included); this is reasonable, since adults would be expected to be important influences in exposing children to the larger city.

2. DRAWING AND USING CITY MAPS

Two problems were investigated here: (1) the content and structure of s's map representations of their neighborhood and (2) s's ability to use city maps.

a. MAP REPRESENTATIONS OF THE NEIGHBORHOOD. Do boys who travel around the city more extensively have a clearer, more structured image of their own neighborhood as represented on a map? We

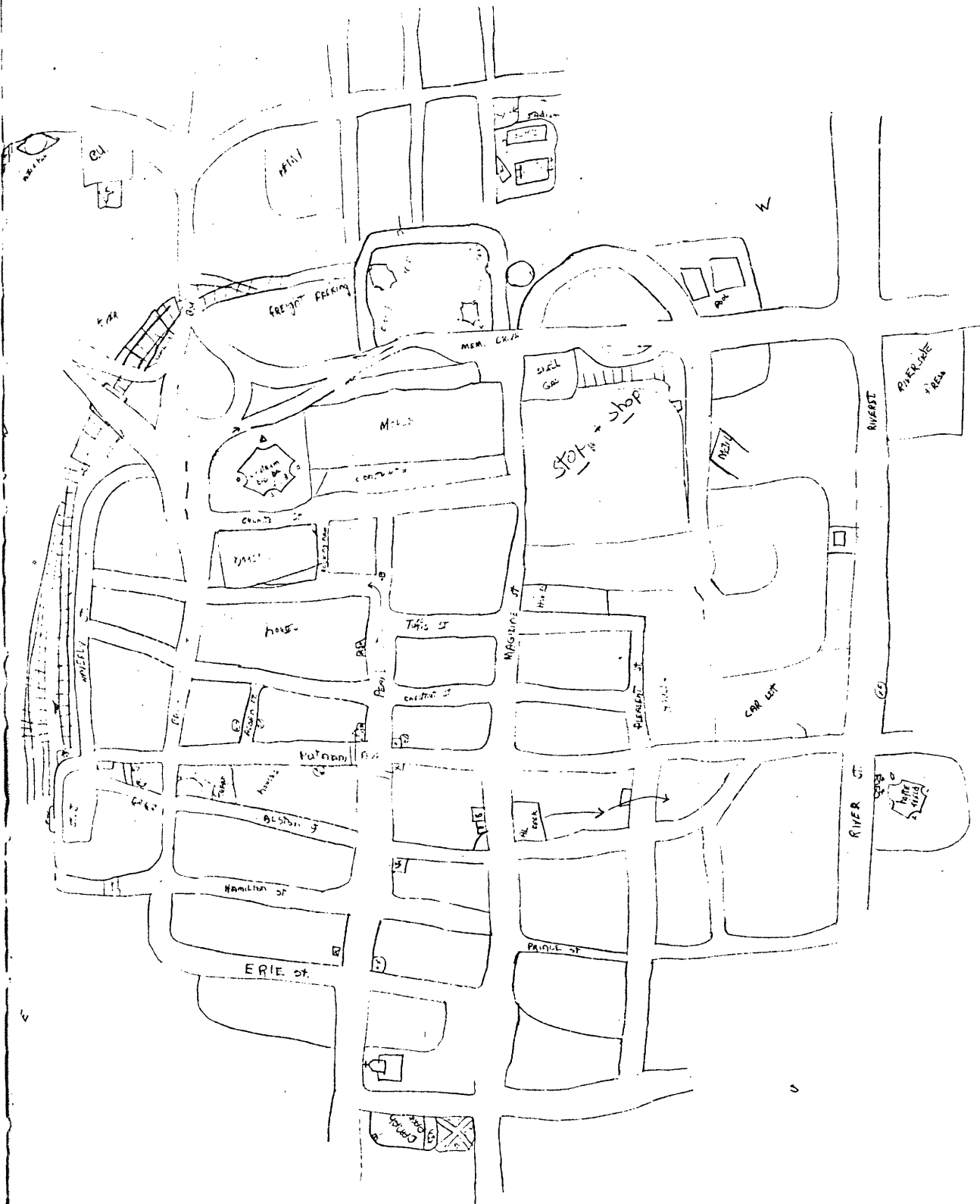
expected this to be true. It has already been shown that the more travelled s's have a larger neighborhood concept. Maps were analyzed for both degree of structure-accuracy and content (see Appendix I.B.2. for details of method and analysis). Results indicate that, if anything, there is an inverse relation between extent of travel and degree of structure in map representations.

There is a distinctive difference between M's and L's in accuracy and structure: over 50% of the M's are in the top structure group compared to only 9% of the L's. However, 73% of the L's are in the bottom group compared with 15% of the M's. In general, M's maps are much more accurate and structured than L's. Maps 10A and 10B illustrate the extremes of M and L maps. (see Appendix II.E. for other subject maps.)

25. MAP STRUCTURE-ACCURACY

<u>Structure-Accuracy Rating</u>	<u>(% of subjects)</u>	
	<u>Middle class</u>	<u>Lower class</u>
HIGH	54%	9%
MEDIUM	31%	18%
LOW	15%	73%

When the structure-accuracy rating is broken down into the two elements of accuracy and structure, L's are lower than M's on both. However, less difference is seen between the two groups on structure. It is in the average accuracy rating



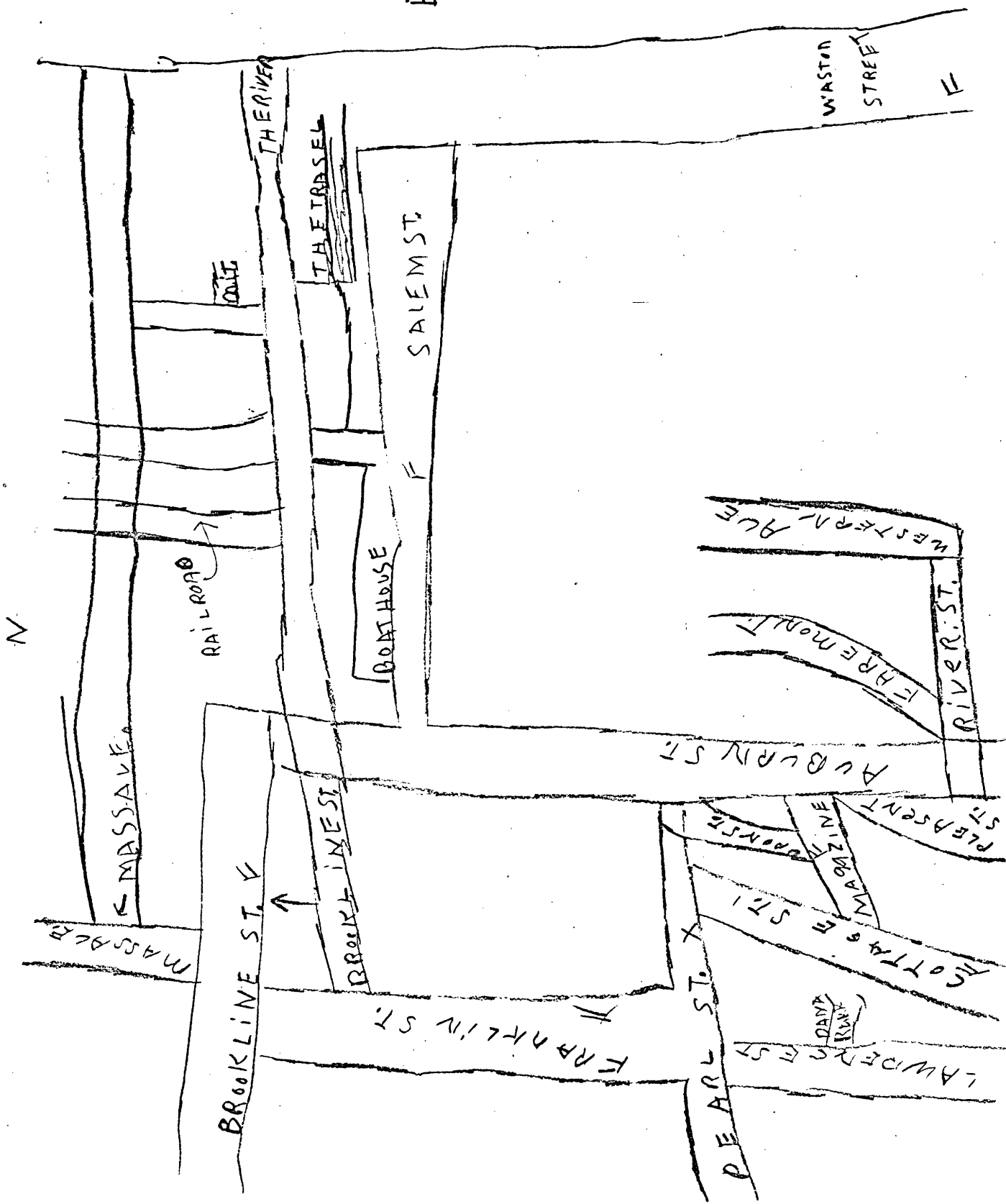
pick and

M1-04

MAP 11A. ILLUSTRATIVE SUBJECT MAP OF NEIGHBORHOOD AND CITY (M)

JERRY SICVA

E



MAP 11B. ILLUSTRATIVE SUBJECT MAP OF NEIGHBORHOOD AND CITY (L)

N

that the greatest difference is seen, the M's averaging very high on the whole and almost 50% higher than the L's. Might the main difference be that L's are less careful rather than less knowledgeable?

26. AVERAGE ACCURACY AND STRUCTURE RATINGS

	<u>Middle class</u>	<u>Lower class</u>	<u>Both groups</u>
AVERAGE ACCURACY	10.3	7.0	8.8
AVERAGE STRUCTURE	8.4	7.0	7.8

There is an interesting correlation between size of territory and degree of structure and accuracy. Structure and accuracy tend to decrease somewhat with larger territory. However, a significant difference exists between groups; here L's decrease in structure-accuracy as territory mapped increases, but M's increase their structure-accuracy with larger territory.

Class differences are insignificant for small territory but significant for large territory.

27. MAP TERRITORY AND STRUCTURE-ACCURACY

	(average accuracy: possible score = 5)	
<u>Territory</u>	<u>Middle class</u>	<u>Lower class</u>
SMALL	3.2	3.0
LARGE	4.0	1.8

When structure and accuracy ratings are analyzed separately for small and large territories, there are some interesting results. For M's, when territory increases, structure increases but accuracy remains about the same for both small and large territory. However for L's, structure increases only slightly with an increase in territory, but accuracy decreases considerably. The two groups differ in accuracy and structure primarily for the large territory maps; structure increases for both groups as territory increases, particularly for M's; accuracy increases only for the M's but decreases significantly for the L's with an increase in territory. Is this difference simply because L's are less skilled or more careless in map drawing? Or are they less able to organize their city experience?

28. MAP TERRITORY, ACCURACY, AND STRUCTURE

<u>Territory</u>	<u>Structure</u> (possible score = 12)		<u>Accuracy</u> (possible score = 12)	
	<u>M</u>	<u>L</u>	<u>M</u>	<u>L</u>
SMALL	7.2	7.0	10.7	10.5
LARGE	9.8	7.5	10.0	6.3

Maps were also analyzed for content: streets, friends' houses, other buildings, and open space. Most s's included about 20 items on their maps. Relatively little detail was shown outside the neighborhoods. Both groups included about the same number of different elements, although L's included slightly

fewer items than M's both inside and outside the neighborhood. L's included slightly more streets inside the neighborhood but slightly less outside it. They also mapped a few more friends' houses. More buildings and other elements were shown inside the neighborhood by M's but L's showed more outside.

29. ELEMENTS SHOWN ON MAPS

<u>Element</u>	<u>(average number of elements)</u>	
	<u>Middle class</u>	<u>Lower class</u>
BUILDINGS, OPEN SPACE & OTHER ELEMENTS		
Inside Neighborhood	9.1	6.2
Outside Neighborhood	7.5	7.7
STREETS		
Inside Neighborhood	8.6	10.4
Outside Neighborhood	2.0	1.5
FRIENDS' HOUSES		
Inside Neighborhood	4.8	5.4
Outside Neighborhood	1.0	1.0
TOTAL ELEMENTS		
Inside Neighborhood	17.8	16.7
Outside Neighborhood	9.5	9.2

When amount of detail is analyzed for small and large territories, it is seen that detail increases with territory size; s's who map a larger territory also show more elements. One might expect that detail would not vary significantly with territory

size; a subject who maps a small territory might be expected to show more elements per unit area, whereas a subject who maps a large territory would spend his time on general structure. Amount of detail increases with territory for both groups, although L's show a greater difference between small and large territory than M's.

30. MAP TERRITORY AND NUMBER OF ELEMENTS

	(average number of elements)	
<u>Territory</u>	<u>Middle class</u>	<u>Lower class</u>
SMALL	23.7	17.5
LARGE	31.6	27.8

Analysis of degree of structure and accuracy in relation to amount of detail shows that amount of detail increases for M's as structure-accuracy increases. However, for L's the reverse is true; as detail increases, structure-accuracy decreases. This is another indication that L's are either simply less skilled in map drawing or that they are less able to organize information.

31. MAP STRUCTURE-ACCURACY AND NUMBER OF ELEMENTS

	(average number of elements)	
<u>Structure-accuracy</u>	<u>Middle class</u>	<u>Lower class</u>
HIGH	61.2	13.0
MEDIUM	29.2	27.0
LOW	16.5	53.2

b. RELATIONS BETWEEN CITY TRAVEL AND MAP STRUCTURE. Do s's who travel more extensively in the city on their own draw more structured and accurate maps? Analysis of structure-accuracy ratings in relation to amount of travel indicates that this is true only for M's. For L's the opposite is true; L's who travel more widely tend to draw more confused maps.

32. RELATIONS BETWEEN CITY TRAVEL (WITHOUT PARENTS)
AND MAP STRUCTURE-ACCURACY

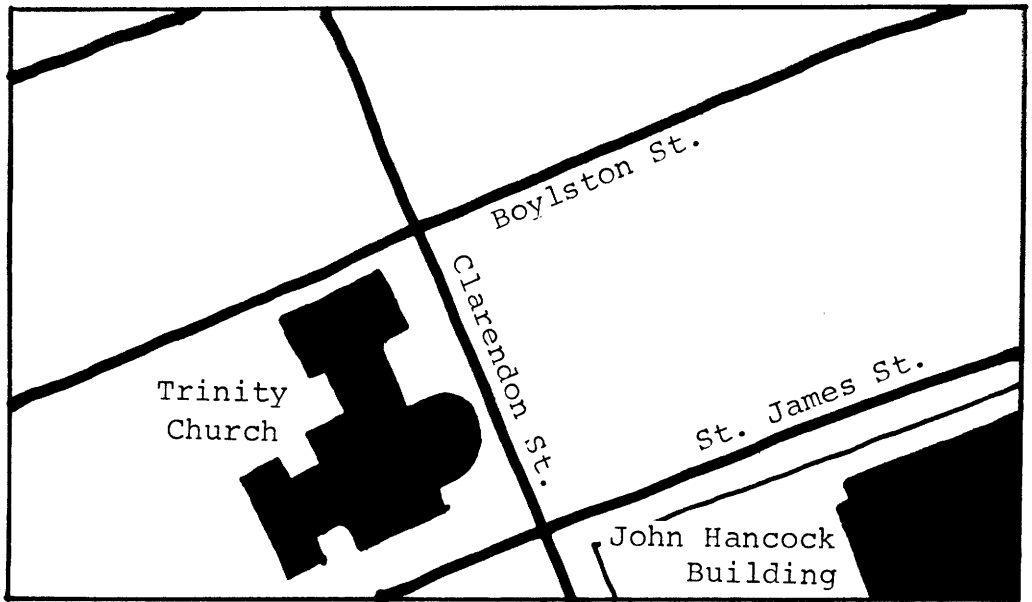
<u>Structure-accuracy rating</u>	(amount of travel)	
	<u>Middle class</u>	<u>Lower class</u>
20-25	20.9	-
16-20	11.4	21.7
11-15	8.5	34.0
5-10	-	23.6

We cannot conclude then that s's who travel more widely have a clearer idea of the structure of their neighborhood and city as represented in maps; it is true for M's, but not for L's. It is likely that another factor causes the differences. There may simply be differences in ability to draw maps or to organize information of any kind, which may relate to attitudes toward school. Kids who like school more and who do better (M's) may draw more structured maps because they have learned in school how to organize information. L's on the other hand dislike school more than M's, have acquired fewer academic skills, and may also reject academic tasks like map drawing.

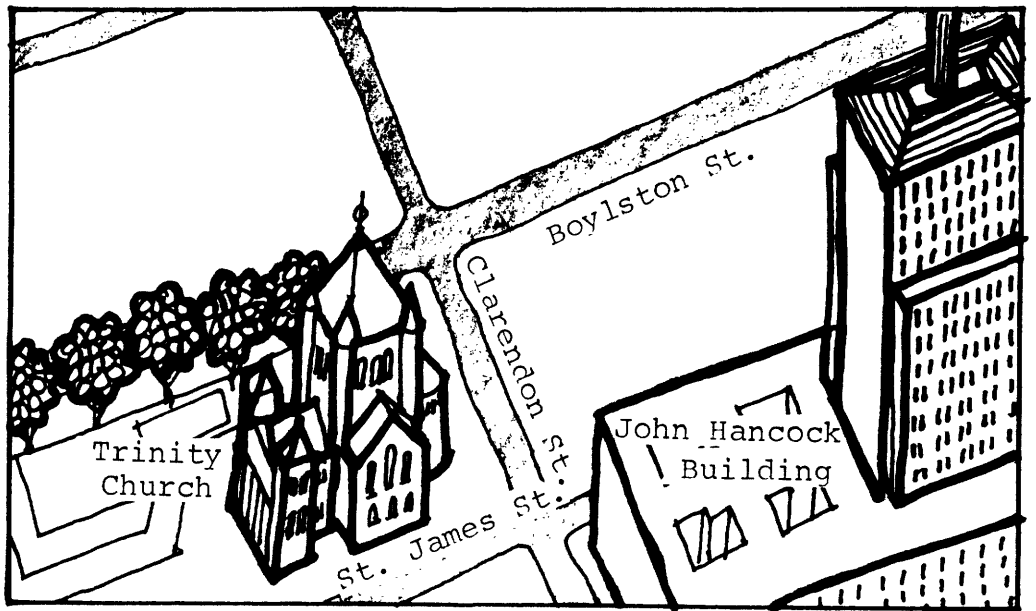
c. MAP USAGE. The ability to use maps is an important skill in city travel, especially for travel to strange places. Since providing maps that children would be able to use might be one function of an Urban Service, we wished to find out what problems kids have in understanding maps. Two skills seemed most critical here and were tested: (1) abilities to both recognize the actual place when its map representation is known and to find the place on a map when the place is known and (2) the ability to find particular destinations on maps using a directory and to then plan efficient routes to the places. We were also interested in testing the effects of map graphics on map comprehension; three kinds of maps were tested: line maps that showed streets only (Map 11A), landmark maps that showed streets and major buildings (Map 11B), and pictorial maps that showed all buildings in isometric (Map 11C).

Analysis shows that M's consistently do better than L's in all map tasks; s's had very little experience using maps except world maps in geography classes. Both groups did better on destination finding and routing and had greatest difficulty in connecting maps with the visual scene--an essential skill in map usage.

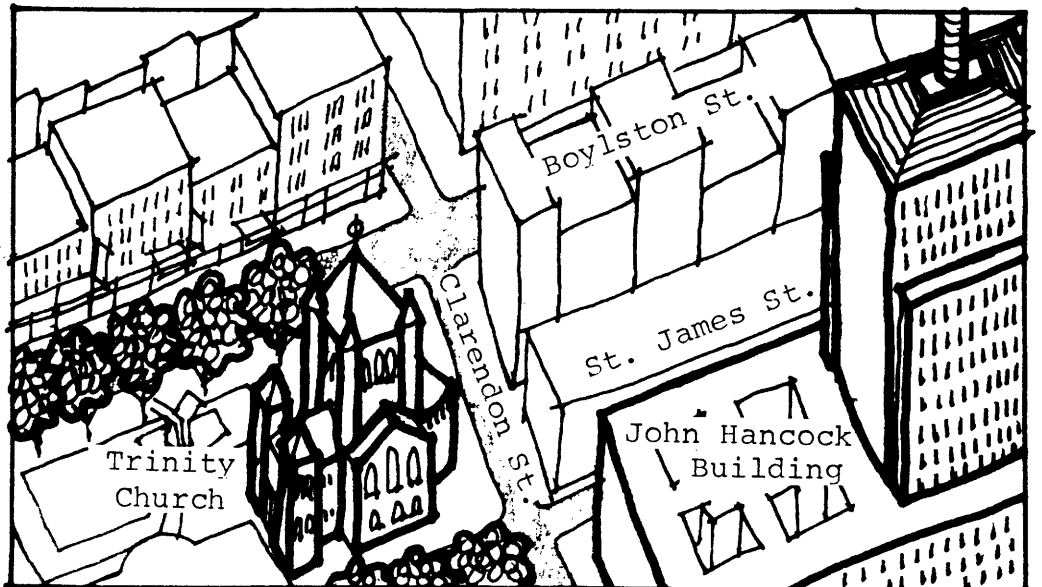
To test s's ability to relate map and scene, s's were shown pictures of four places and were asked to match each place with the correct map from a set of eight maps, half of which



A. LINEAR MAP



B. LANDMARK MAP



C. PICTORIAL MAP

were diagrammatic and half of which were pictorial. This task was then repeated, except s's were shown four maps and were to match them with correct scenes. (see Appendix I.B.10 for details of method) In nearly all cases s's favored the pictorial maps, that is, they matched pictorial maps first and in fact often chose an incorrect pictorial map in preference to a correct diagrammatic map. Major problems with line maps were difficulties in imagining the plan shape from the picture and in imagining the scale of picture elements from the plan. Pictorial maps reduced both of these problems. The major problems with pictorial maps were that s's failed to pay careful enough attention to details and would make a choice that resembled the correct match, but which was incorrect; for example, several s's matched a picture of St. Peter's and its Piazza with a pictorial plan of the State House and Common because they saw domes and large open spaces in both. A second problem with pictorial maps was angle of view; an isometric representation allows only one viewing angle; when s's were shown a scene of a place from another angle than the one represented in the isometric, they sometimes had difficulty making the match. However, s's were more correct in matching pictorial maps with scenes than diagrammatic maps; M's consistently scored higher than L's.

33. MATCHING MAPS AND VIEWS OF PLACES

<u>Type of Map</u>	(average % correct responses)	
	<u>Middle class</u>	<u>Lower class</u>
PICTORIAL MAPS	79%	50%
PLAN MAPS	63%	12%

A second task designed to evaluate kids' difficulties in relating maps to places involved drawing map representations from pictures of four unfamiliar places. Except for a few s's, most did not know how to draw plans but drew quasi-perspectives instead--more or less duplications of the picture they saw. It was difficult for them to imagine from a picture what a place would look like in plan and important connections and relationships were often overlooked. Again M's did better than L's.

34. MAP REPRESENTATIONS DRAWN BY S'S FROM SCENES OF PLACES

	<u>Middle class</u>	<u>Lower class</u>
Average Accuracy-Structure Rating of Maps	57%	38%

S's generally did very well--much better than expected--in the second part of the map tasks: destination finding and routing. This consisted of three parts: (1) finding familiar places on a map of Cambridge, (2) finding unfamiliar places and planning routes on three maps of Boston--plan, landmark, and pictorial maps, and (3) finding destinations and planning routes on the standard MBTA map.

Most s's had little trouble finding familiar places on the Cambridge map. Those who had trouble usually scanned the map incrementally and failed to look for major references like the river or street to help them focus on the destination. On the other maps, s's were very capable in using alphabetic map directories and in following location codes on the map. The subway map was the most difficult to use. The directory is divided into several subcategories and it is necessary to know which category the place is in before it can be found. A second difficulty with the subway map is the inset panel for Central Boston. Many s's did not understand what an inset was and thought it was part of the main map; for example, when they were referred to the inset for the Science Museum, they thought they had been referred to the wrong place because they knew the Museum was somewhere on the Charles River across from MIT, which they had already located on the main map. A third difficulty with the subway map was lack of identification for major areas like "Downtown Boston"; when s's were asked to find this, many couldn't--they didn't know that "Downtown" was located on the peninsula, but instead looked for a place low "down" on the map, thus landing somewhere in Dorchester! There was little difference between plan, landmark, and pictorial maps in ease of destination location, although the pictorial maps did help s's--especially L's--find familiar places more quickly.

S's had somewhat more difficulty in route planning. The tendency was to select the most obvious route, which was not necessarily the most efficient, even though they were instructed to find the shortest route. When it was necessary to make connections on the subway map, it was often not clear to s's whether they had to go outside to another station to transfer or whether the transfer could be made underground. S's planned most efficient routes with the plan map and least efficient routes with the pictorial map. The totally pictorial map was somewhat confusing since parts of the streets were covered by buildings and it was more difficult to find street names.

35. DESTINATIONS AND ROUTES

<u>Type of Map</u>	(average % correct responses)			
	<u>DESTINATIONS</u>		<u>ROUTES</u>	
	<u>M</u>	<u>L</u>	<u>M</u>	<u>L</u>
CAMBRIDGE MAP	83%	73%	--	--
BOSTON MAP				
Plan	93%	80%	87%	87%
Landmark	100%	93%	77%	67%
Pictorial	93%	97%	67%	50%
SUBWAY MAP	73%	68%	88%	80%

Thus, in designing maps for kids, and probably for adults, we must take into account the conflicting requirements for destination location and routing. To locate destinations

it is desirable to have an image on the map of what the place looks like; for routing efficiency, the map should ideally show paths only, since pictorial information tends to interfere. When s's were asked which maps they liked best and least, they usually preferred the pictorial map but disliked the plan map. However, when they were asked which maps were easiest and most difficult to use, their responses reversed; they considered the plan map easiest to use, but the pictorial map most difficult to use. Thus the conflicts between diagram and picture were present in their evaluations as well as performance. The best alternative is probably the landmark map--a compromise between the plan map and the pictorial map. In making such a map it is important to select features from the environment that really are landmarks to most people and to represent them in such a way that they will be interpreted correctly.

It is important to show the scale of places: how big they are and how long it takes to move through them. Second, maps should have clearly printed street names and place names (like "Downtown"). Third, grid lines that run across the map are essential (although kids could find location code letters, they often did not follow the letters across the maps in a straight line and consequently did not find the destination). Maps with destinations and routes that light up have the obvious value of eliminating the search task. In addition to making better city maps for children, schools should teach kids how to make

and use city maps.

d. RELATIONS BETWEEN MAP DRAWING, MAP USAGE, AND TRAVEL.

Does map using ability correlate with s's ability to map their neighborhood and city? Analysis of the structure-accuracy of s's neighborhood maps in relation to their performance in map comprehension shows this to be true. S's with highest structure-accuracy ratings do better on map comprehension and M's do better than L's. As with structure-accuracy of neighborhood maps, map comprehension does not correlate with extent of city travel for L's. Thus, we are even more inclined to conclude that s's ability to represent the city in a map depends not so much on their city experience, but upon their skill with maps.

36. RELATIONS BETWEEN STRUCTURE-ACCURACY RATINGS OF S'S CITY MAPS AND MAP COMPREHENSION SCORES

<u>Structure-Accuracy Ratings of Neighborhood Maps</u>	(score on map comprehension: possible score = 42)	
	<u>Middle class</u>	<u>Lower class</u>
VERY HIGH	35.5	-
HIGH	32.7	-
MEDIUM	28.5	31.4
LOW	34.6	29.8
VERY LOW	-	23.2

3. SUMMARY OF CHILDREN'S CITY KNOWLEDGE

Boys' knowledge of city places, then, is found to vary depending upon the activity and form qualities of places. Places are more likely to be known if they have strong activity character as well as form character; however, places are least likely to be known if they lack activity. Specific types of places that are known generally parallel those that are most used and most valued: open space, transportation, commercial, and entertainment and recreation. Least known places are least used: institutions, buildings and monuments, and residential areas. When asked what kinds of places they would like most to know more about and visit, s's are found to desire knowledge of places they already know and prefer; they are disinterested in learning about places they lack knowledge of and dislike. Neighborhoods of differing social character were both least known and most disliked.

The two social groups do not differ greatly in knowledge of places. Lower class boys are generally found to recall more but recognize fewer places than middle class boys. This difference might be attributed to the method, recognition requiring more careful attention to details of pictures-- a skill probably more developed in M's.

Boys who are more widely travelled both recall and recognize more places in the city. However, boys who are more widely

travelled do not necessarily have a clearer image of the city as represented in maps drawn by them. M's with more city experience do draw more structured maps, but the reverse is found to be true for L's: L's who travel more widely draw less accurate and less structured city maps. Accuracy is the most critical factor in this difference; structure does not vary significantly for large and small territory maps. M's who map larger territory are more accurate than those who map a small territory, whereas L's who map a large territory show a considerable drop from those who map a small territory.

Maps may give good indications of the extent of kids' territory, but it is doubtful whether they indicate s's structural image of the city, since it is also found that s's who draw less clear neighborhood maps are also less capable in using and drawing other kinds of maps. M's are consistently better than L's in map usage. Ability to draw maps may be the critical variable in map structure and not s's city experience.

In using several different types of maps, s's are found to be quite capable at destination finding and routing. Greatest difficulties were in connecting map images with street scenes--the essential skill in map using. Pictorial maps are most

successful for this although they were somewhat confusing to use for routing. Ideal maps for children would be a compromise between linear maps and pictorial maps and would contain easily interpreted pictures of common landmarks with clearly marked and labelled routes.

D. CHILDREN'S ENVIRONMENTAL VALUES AND NEEDS

What qualities make city places attractive or unattractive to children? What are the major problems in kids' city experience? Results of several research methods have helped answer these questions: the interview, photo survey group discussions, trip plans, classification and value of unfamiliar environments, and the evaluative parts of the city knowledge (place recall and recognition). (see Appendix I.B.1,2,3,4,5,6,8, and 9 for details of these methods.) Analysis of each of these methods separately has revealed common values that run through results of all methods. To avoid repetition, results are synthesized and presented by theme, rather than by method. Three themes have served to organize most of the results: environmental form values, activity values, and social values.

1. FORM VALUES

Physical criteria are commonly used by both social groups in evaluating both familiar and unfamiliar environments in all of the methods. In fact, form related comments are often the first observations s's make. For example, s's descriptions of their neighborhood and its problems were mainly physical: street conditions, housing types, playground needs. Similarly, in "environmental classification" when s's were asked to group pictures of 75 unfamiliar places according to their similarities, over half of the groups were made on the basis of shared formal attributes of the places in the groups, rather than functional, emotional, symbolic, or

abstract attributes. (see Appendix I.B.1. for details of method.) Six qualities of the physical environment seem to be most valued: cleanliness and order, physical safety, water and other natural elements, color, newness, and form symbolism, ornateness, and height.

a. CLEANLINESS AND ORDER. Comments about dirt, litter, polluted water, smog, shabby houses, and bad street surfaces are common in s's responses for all methods. This seems to be a problem particularly in their own neighborhood, though they apply the same values to unfamiliar places. Dana Park is the focus for many of the local maintenance comments:

I don't like it that much because there's a lot of broken glass there.

You can go at night--perfectly clean. In the morning the barrel's tipped over and stuff strewn all over the place.

Peter Park and Dana Park are really rotten, ya know, with glass, paper, dirt, and everything.

I'd like to stop the kids who mess the park up--they break bottles and turn the grass into straw. They stomp on it; instead of using the entrance, they use the grass.

In general, the physical appearance of parks and playgrounds is important to kids. Streets are the other major example of places where maintenance is valued. Some streets are disliked because of their appearance:

We don't like Pearl Street cuz of all the dirty scraps on the ground--it's all messed up--the ground, the gas station, the street.

Street repairs are particularly desired by the M's who object to the bumps for bike riding.

Chestnut street needs a good repaving. It's full of pot holes..you wouldn't believe it!

I'd get a whole new tarred down street for all the streets so that when I ride my bicycle I wouldn't bump all over the place--the other day I lost my keys.

Likewise, kids were very conscious of the appearance of houses; certain streets were disliked because of the poor condition of the houses:

I think a few houses need to be torn down on Brookline Street--they're wrecks.

Get some good houses, get some good streets.

I'd make all the houses new.

The insides of the houses should be better and the outsides should be better and more people would come to see you.

Comments about pollution appear in the interviews and in both the classification and recognition pictures. In the classification pictures any water that looked dark or dirty was disliked. There were also numerous comments on the smog in industrial pictures. The Charles River is the focus of most pollution comments in the interviews and kids would like to have it cleaned so they could swim in it.

If I could change anything I wanted to it would have to be the River. I'd make it as cleeeeen as can be so you can go back swimmin there.

I'd try to clean up the Charles River--I wouldn't have boats goin through there an everything an make the water all oily from the motor.

The Charles needs to be cleaned out. It used to be our fathers could swim in the Charles when it was clean. My father dived off the crane. When he was sixteen they used to have a crane hangin out over the water way out in the middle and they climbed up and dived off the crane, him and his freinds. It was about sixty feet above the water.

Comments on dirt and disorder appear also in responses to the environmental classification and recognition pictures. Often minute physical details were noticed and criticized, particularly by the M's. For instance, minor litter was noticed in a picture of railroad tracks, bumps were noticed in streets, and vines on a castle were considered unwanted weeds; peeling paint, writing on walls, unmowed lawns were noticed in other pictures. In fact, the most-disliked places in the recognition photos were disliked mainly because of their appearance-- they were too junky; these places include two junk yards, two subway yards, an industrial street, and a street in the North End.

b. SAFETY OF THE PHYSICAL ENVIRONMENT. Sometimes objections to the physical appearance of places were rooted in fear of physical dangers. This was chiefly true for M's who in all methods mention more physical dangers than L's and sometimes even more physical dangers than social dangers. This emphasis is probably the result of more protective middle class parents. Some environmental hazards consisted of old houses or buildings "where the floors are dangerous".

There are some houses down here I'd tear down on Brookline. They're unfit. It's a bad influence on the kids to see all the hippies move in. Then when they move out it becomes a hazardous place. No one cares about it. That's why I say it's hazardous--kids look at it and think nobody's in it and go in and it's dangerous. It's a fire hazard.

At Revere Beach "kids might fall off the roller coaster", "on River Street it's easy to get hit by a car", in a junk yard "you can get hurt on the trucks", "the Harbor might flood", at the tracks "you could get hurt by the trains", and so on. Other danger comments refer to construction sites, wastelands, broken glass, rocks and trees, fire, traffic:

M.

Tall buildings that aren't finished yet are dangerous.

When the steel's goin up it's too dangerous cuz the steel could fall and there are rivet guns--you can't go in without a helmet on. A guy would be hurt pretty bad cuz those guns shoot through steel.

Places are dangerous that aren't guarded that are all corroded and messed up where little kids can go without being watched.

You have to improve playgrounds and get rid of the glass so kids don't fall down and get cut or scratched.

Trees might fall down and everything or you might be trying to get through and would get your foot stuck between the trees and you might not be able to get it out. Water might be dangerous cuz you might fall in and it might be right up to here probably

There's a lot over here where all trees are growing.. I'd like to clear it out cuz some of it's poison ivy like.

It's dangerous on Fairmont St. cuz one day it was raining real hard and a tree fell on a car and smashed it.

Down here on River St. around the fire station sometimes cars come screaming by and they almost go up on the curb.

I like the country cuz they don't have as much polluted air in the country as they do in the city.

River St. is a big street--it's very dangerous--trucks and everything.

On Brookline St. and down by Sidney the traffic is bad--there's lot of trucks and you can get hit by a truck and on Brookline there's lots of cars that come by.

In responses to the environmental classification photos, the theme of environmental hazards is particularly frequent. An industrial place is bad because it is smoky and pollutes the air; in another scene the water "looks bad" or is termed "polluted" and the jungle breeds disease and viruses. A desert might have "diseases, bugs, snakes or you might starve or run out of water"; in a cave "you might get trapped inside"; on mountains and cliffs "you might fall". Thus, s's fear the gamut of hazards: disease, fire, pollution, traffic, falling, starvation.

c. WATER AND OTHER NATURAL ELEMENTS. As we have noted in discussion of kids' use of places, areas with water are favorite attractions. The magnetic appeal of water carries over into their discussion of unfamiliar places in environmental classification. Wherever water appeared--in a lake, river, or fountain--it was almost always mentioned, particularly in connection with activities they imagined doing there like swimming, fishing, or boating. Boats had particular fascination:

I like the old-fashioned style of this ship; I'd like to go sailing on it.

I like to sail on any boat.

I like miles and miles of ocean; it would be fun to go boating far out on the ocean.

You can relax...go for a cruise and see the city.
(picture of gondola)

Other natural elements are also frequently mentioned.

Mountains are noticed wherever they appear and are usually associated with climbing activity. Trees and flowers are also liked and remarked upon frequently. Kids' interest in nature is notably evident in their descriptions of places they would like to live, though the attraction is not only the physical setting but the associated activities. This nature bias is particularly evident among the M's, possibly because their parents give them greater exposure to such areas.

M.

I'd like to live in New Hampshire cuz there's not many people that live there and a lot of forests.

In New Hampshire I'd have a lotta forest that has fields and everything.

The country don't have as much polluted air as they do in the city. I'd like to live in the forest and everything--you can go hiking. I think I'd like to live in the country in Vermont or New Hampshire. In the winter there are a lot of ski resorts near there so you can go there if you like skiing.

L.

I'd probably like to live out in the woods somewhere--out in the country, like you could go fishin everyday or stuff like that.

Connecticut is beautiful--trees and everything surroundin you everywhere.

I'd like to live in New Hampshire--any place away from Cambridge--as long as it wasn't Cambridge or around here. It's quiet around here, but there's nothin to do--if you had somethin to do it would be all right.

We want to go to Florida--it's clean--not like hippies--white sand, blue water--I don't like Cambridge.

M.

I'd like to move to New Hampshire (other L's preferred the city) cuz that has a lot of cottages and good swimming lakes. I would like to move up to there--then Canada would be good.

I like to live in the country--I like to ride my bike on the road, I like the houses, and there's a hill I can go down, and a swimming place.

It would be best to live out in the country--maybe Florida, Texas, or California--my aunt lives in California--everything's green and it's nice.

The best place to live would be one of the countries out by Washington, Oregon--where there are some mountains that I can explore like caves, fishing, swimming.

d. COLOR. The value of color in the environment is seen chiefly in responses to the pictures. Colors of flowers were frequently noted as were colored lights and buildings. Street scenes at night with colored signs and illuminated buildings were singularly fascinating for their color. Colors seem to evoke emotional responses; street scenes and bright lights at night are "exciting", red rocks are "peaceful", colored flowers are nice "when I'm sad". S's noted the "nice blue" of the river and the colors of Chinatown, of Harvard Gate, the Old Corner Bookstore, and the Longfellow house; one subject even said that the Paul Revere statue should be in color! No one color was preferred; rather, lightness or brightness was preferred to darkness.

e. NEWNESS. Modern things are almost invariably preferred by the kids. Often the way to improve something is to get a new one rather than to improve the old. Old buildings are often associated with poverty, dirt, disorder, disease. Historic places are usually not liked except for those that are new in appearance like the Bunker Hill Monument or well-kept like Old Ironsides. L's are particularly insistent on newness while M's will accept the old if it is well-kept. In the environmental classification pictures s's make comments on the age of places in one third of the pictures and in recognition photos old or historic places (Paul Revere House, Beacon St. Houses, historic burial ground) are far more disliked than modern buildings. In the interviews also there are numerous expressions of s's attraction to new buildings, new parks, new houses, many of which have already been cited.

I'd get brand new trains and train tracks--freight trains, but brand new--just made.

In this neighborhood there are the "moderns" and the old-fashioned". The moderns have all these colorful things and the old-fashioned have all these rotten chairs and everything. We're moderns.

Much of the attraction to the new seems to be connected with the suburban ideal which will be discussed later.

f. FORM, SYMBOLISM, ORNATENESS, AND HEIGHT. Form itself seems to play a vital role in s's evaluation of places. Places in the recognition analysis were more preferred if they were

some type of symbolic form (rather than non-symbolic) and were particularly well-liked if they had striking form as well as activity. The opposite is true of s's dislikes: places with non-symbolic form and no activity were most-disliked but places with both memorable form and activity were least disliked.

37. RECOGNITION: PREFERENCE AND GENERAL PLACE TYPE

	(% places in each category)	
<u>LIKES:</u>	<u>Middle class</u>	<u>Lower class</u>
NON-SYMBOLIC FORM	14%	20%
SYMBOLIC FORM	16%	29%
ACTIVITY	17%	34%
ACTIVITY AND FORM	27%	40%
 <u>DISLIKES</u>		
NON-SYMBOLIC FORM	20%	26%
SYMBOLIC FORM	17%	23%
ACTIVITY	14%	20%
ACTIVITY AND FORM	12%	18%

In the environmental classification pictures, it seemed the more complex and ornate the form, the more it was liked. Such places invited exploration and had an aura of mystery about them for many kids. The form was attractive because of what they imagined they could do there: "go up into the towers and look around", "go through, and search around", "go in and explore". Walls, towers, and high gables are

all mentioned as specific examples of form they like; these usually evoked imagined activities.

Finally, height and panoramic views both came out strongly as well-liked elements in all of the methods. In both the photo surveys and interviews, tall buildings were valued places, as we have seen: Prudential, Fenway Motor Hotel, Cambridge Gas and Electric Company, and observation towers. In environmental classification also height of buildings was a frequent positive comment and s's imagined going to the top to look out. Several s's mentioned wanting to visit the Empire State Building, the Pan Am building, and the Statue of Liberty. The Statue of Liberty was almost in a class by itself--it had the most comments and was almost universally liked. It had symbolic value: "known by everybody", "gives me pride in my country", "the statue stands for liberty", "a historical gift from France". It is also connected with other things the kids like: New York and big cities, height and view, water, climbing:

You go up to the top and look around the city.

I'd like to go up and see everything--New York, the water, people.

I'd go up into the crown and see the ocean.

There's a beautiful view of water and boats.

It's big and tall and there's nice grass around it--you can look out at the ocean.

Buildings were not the only forms that were valued for their height; mountains, cliffs, and bridges were responded to in

in a similar way, though there were frequent comments of related physical dangers.

I like mountains for climbing.

You can go through the rocks and play and hide.

I like to look at the scenery and explore.

The mountains are so high you'd like to be there.

I like to see heights and would like to climb it and look out.

2. ACTIVITY VALUES

Activity appears to be even more critical in boys' evaluations of places than form, although the two are clearly related.

It has already been shown in "city knowledge" (place recall and recognition) that places were both better liked and better known if they were clearly connected with some activity s's could engage in. (see Tables 10,11,13,14, and 19.)

Frequently places were disliked because "there's nothin to do". Similarly, in the photo surveys the most frequent reason for taking a picture of a place was because of what s's did there, not because of the way the place looked; one third of s's reasons for photographing places were activity-related but only one fifth were form-related. In fact, best-liked and most-used places mentioned in all methods were consistently connected with activity.

a. INTENSE ACTIVITY. One of the biggest problems for kids seems to be boredom. Both groups complain about the lack of things to do and this was one of the frequent criticisms

of Cambridgeport. However, there does seem to be a difference between M's and L's on what boredom is. Many of the L's were bored when there were no people around, while only one M gave this reason. However, the chief response of the M's was "there's nothin to do"; their boredom is more dependent upon the physical character of places than on social character.

M.

There ain't too much to do here-- just play games or somethin.

I get bored about once a day-- everybody gets bored. There's nothin to do.

I usually don't go around here down by the river cuz there isn't much down around here.

There's no place to go around here. All there are are somebody's houses or back yards.

I usually don't go over to the park anymore cuz there's nothin to do.

I'd like to go to the Cape-- there's lots to do down there.

If you go to the same places all the time you get tired of em.

We know the whole place now-- we know all around it--you could say it's too old now.

L.

I get bored when all my friends are gone and there's nothin to do.

Any place you go if there'e not one person around it's not fun.

Some of the kids just go over to the park and sit down on the benches over there. They just keep walkin back and forth-- there's nothin to do really.

Kids are always gettin in trouble and everything. They're always breakin people's windows and knockin over barrels--can't think of anything else to do.

I wouldn't get bored in Los Angeles cuz there's lot of people there.

I go over to the park almost everyday cuz there's nothin to do down here now.

The neighborhood should have lots of places to play and lots of kids come over.

Most of the time I'm bored when nobody's on the streets--I just have to stay in the house then instead of walkin around-- it's boring when people don't go out.

The amount of activity going on at a place seems important to kids. This is particularly important to L's who seem to prefer places that are exposed to other activities and people, like playgrounds and streets. However, M's seem to prefer more secluded places that are away from things: wastelands, back yards, places in the country. These attitudes are equally present in their responses to places in environmental classification; L's favor the bustling streets and squares that M's find "too crowded", "too busy", whereas M's prefer the remote country spots that for L's have "nothin to do", "nobody around". These responses are closely related to s's attitudes toward people (as well as activity) discussed in the next section.

Some differences do appear in preferred amount of activity; as we have noted earlier, L's seem to do more of the passive type activities like hanging out on streets or in the teen center, playing cards or pinball machines, fishing, going to movies, or riding subways; M's particularly like ball playing, bike riding, exploring.

b. VARIETY OF ACTIVITY. Variety of things to do is also an important factor in the attractiveness of places and places where several things can be done are usually better liked. For instance, in their comments about playgrounds, kids often mention the number of things there are to do:

I play basketball, once in awhile we have a game of softball--you can do a lot of stuff there. You can play on the monkey bars and on the swings and everything and can play baseball.

We usually don't go over to that park cuz there's nothin to do.

Their reasons for wanting to move to other places often relate to the number of things to do as well:

You can have a lot of places to go in California--it's not just stayin around in the house cuz there's a lot of things to see.

In Holbrook where my aunt lives the kids aren't bad--they have a lot of things to do.

In North Carolina there are lots of places to go to.

We have also seen that kids' activities in wastelands (especially the trestle), the River, and at MIT and BU feature a choice of activities.

Although kids seem bored, the variety of things they find to do is impressive. In fact most of the things they do are not planned for them by recreation planners or parents but are more or less invented or discovered: throwing rocks at bottles, climbing dirt piles, building forts, climbing roofs, ringing door bells, riding elevators, catching bugs, playing on steps. (see Appendix II.C. for complete list) Several activities are liked by both groups:

1. Water activities: swimming, fishing, boating

2. Climbing or up-down motion: climbing on rocks, hills, construction mounds; going up and down steps, escalators, elevators; amusement rides.
3. Rides: amusement park rides or rides on most vehicles: bike, train, plane, boat, car, bus, trolley, truck, fire engine, tractor.
4. Sports activities: baseball, football, basketball, hockey, playing catch, pool, bowling, pinball machines, cards.
5. Spectator activity: watching men work; watching trains, boats, cars; watching college students or hippies; looking at views; watching ball games, movies, tv; window shopping.
6. Exploring: old houses, wastelands, museums, historic buildings.
7. Eating.

There is also an indication that activities that are connected with danger or that are forbidden have certain appeal: hopping trains, jumping on the trestle girders, picking on other kids, stealing cookies at Nabisco, stealing firecrackers or flares from the trains, exploring abandoned houses, sneaking into MIT buildings, or sneaking into Fenway Motor Hotel and other tall buildings to ride the elevator.

3. SOCIAL VALUES

a. SECURITY OF THE SOCIAL ENVIRONMENT. Fear of other people-- kids in particular--is one of the chief reasons for disliking places. It has been seen that social fears greatly influence the extent of kids' travel and the places they use. Interviews were filled with expressions of such fear: fear of

being beaten up or "jumped" by a gang, by older kids, by blacks, by "kids who aren't like me", (see Appendix II.F. for an inventory of such comments).

Fear was not the only social reason for disliking a place; places also symbolized people who were disliked but not feared:

We don't like those churches on Magazine St. cuz they're Protestant and we're Catholic.

We don't like the YMCA cuz the Pelletiers go there. They smoke and drink and everything.

I hate the Greek Orthodox Church--it's Greek--peeeee-yuuuuuuuuuw! They live in an ishy old house on Auburn St.

I hate Nixon and I hate the mayor so I don't like the City Hall.

I hate that place--Dari's--I hate him--I hate his guts, man. I'll kill im. He's got a dog face. Last time on Halloween I picked up some bottles from behind his car and threw em at his face (giggle).

Some places were disliked because they were associated with blacks, Puerto Ricans, poor people, hippies. Conversely, other places were often liked because people kids liked went there: their parents, relatives, friends, baseball heroes, older kids.

Although other social groups were not commented upon frequently in the interviews, other methods revealed strong biases against groups that were considered different,

especially among the M's. In city knowledge we have seen that s's knew least about the neighborhoods of differing social groups, disliked them, and did not want to learn about them. Responses to environmental classification pictures of foreign countries were particularly evocative; pictures of people and places from Asia, Africa, and the Middle East were singularly disliked and s's made conclusions about the people without any basis in what they saw in the pictures.

The people like to fight; I wouldn't feel safe; they might riot and kill you.

I don't like the people--people all dressed up in odd colors dancing in the streets.

I don't want people to worship different things--it looks like Asia or Africa.

The people and houses are bad--the houses are broken and the food isn't good and they can't talk language.

The people are hungry--I hate poverty.

They don't have enough clothes on.

They don't look good; they look sneaky.

Responses to Japanese and Chinese people and places were more favorable, however, and were associated with things kids know like Chinese restaurants or stores where they could buy firecrackers.

b. GROUP ORIENTATION. A second social value of kids is seen in their emphasis on friends. Kids rarely go places alone and are bored when no one is around. This is particularly true

of L's as seen in the activity discussion. L's seem to like to do things with larger groups of friends than M's and in fact consider more people to be their friends than do M's. They also talk about aunts, uncles, cousins and other relatives more frequently than M's and mentioned doing things with them twice as often as M's. In addition, L's seem to like larger groups of people around and don't mind crowds as much as M's do. M's frequently criticize crowding or "too many people" in environmental classification comments while L's talk about liking big cities, lots of people, and busy places in general. Class differences in social values are particularly evident in their discussions of where they would like to live; M's favor suburban choices but for L's friends and activity are the most important (although they may like the appearance of country and suburb).

M.

Los Angeles is good--they have single family houses and they have pretty big lots and they may be upper middle class things--that's the sort of thing I like--single family houses.

I'd like to live right behind Harvard Square--you know that section there--that's the rich section. There's a private school per five blocks. You look at it and you might think it was rural because it's mainly one-family housing.

L.

A neighborhood should have apartment houses and some split levels. It's good to have lots of people in one house so you can meet a lot of people. Like if you had one house here, one family here, one family there--it would be monotonous. If you walked 20 houses down you might find a kid you know. Instead there's six families in this one, six in that one--you got twelve families right in the two houses--more friends are nearby.

Out in Maynard they got beautiful houses. It's clean--they have the ranch-type. They have patios with em, garage, four bedrooms, dining room, kitchen, two baths--they're really new--just built.

This neighborhood is rotten--I mean the kids congregate in this section and we literally have to shoe them from our front yard.

Belmont has nice land and everything there--my grandmother works for someone there and she has a pool in her back yard and a nice house.

I'd make the houses new and I'd have a lot more people around who're just as big as me. The inside of the houses would be better and the outside would be better and more people would come to your house. I'd put my friends near my house.

I wouldn't want to move cuz it's hard to get friends; you'll probably miss the kids you play with when you move. It's easy to get friends here cuz your friends might have cousins that you don't know and you can get to be friends with them.

I wouldn't want to move to New Hampshire cuz the houses aren't very close together and you don't see many kids around there.

The greater social interest of L's was evident in their photo surveys as well; they took twice as many pictures of friends and people in the neighborhood as M's. They also seem to know more people in their neighborhood, or at least have more contacts with them: shop owners, factory workers, policemen, neighbors. Several of their personal acquaintances result from conflicts: old ladies who won't let them play on the street, shop owners who don't want them to hang around, or MIT officials who won't let them in.

4. SUMMARY OF ENVIRONMENTAL VALUES

In the preceding analyses of values there is a consistent difference between the two social groups that might account

for much of their behavior; this is the difference in urban orientations. Values and behavior of L's seem to be more urban, but those of M's are more anti-urban or suburban. Kids' values are of course rooted in their parents' values and are reinforced by the places parents take their children, as we have noted. To summarize:

Streets and playgrounds are more frequently used by L's than M's and function as social centers. However, M's tend to use playgrounds more for sports that cannot be played in their own yards.

Yards are used by M's but rarely by L's.

Downtown Boston is used much more by L's than M's; they go there by themselves, go to movies, hang at the Common or on the street. M's avoid it, partly out of fear, partly because they dislike crowded places.

Natural parks and water areas are valued by both groups, but M's spend more time in them and would prefer to live in such areas.

Modern houses are liked by both groups but M's want to move to the country or suburbs. L's like Cambridgeport because their friends are nearby.

Both groups are attracted to tall buildings, but L's like them more.

Activities of L's are more oriented to indoor, passive, large group activities like movies, teen centers, cards, "hanging around", pinball machines. M's like outdoor and smaller group activities such as bike riding or sports.

The subway--indoor, passive, lots of people, little privacy--is preferred by L's; M's particularly like bike riding--outdoor, active, private, flexible.

L's like larger groups of people, busy areas with people around. They have more friends and social contacts with kids of other age groups, community people, and relatives. M's dislike crowding and want more space and privacy; they have fewer friends and more limited associations with neighborhood people, with kids of other ages, and with relatives.

Both groups are biased against the unfamiliar--against people or places that are unlike what they have known. This has been seen both in the city knowledge place lists and in environmental classification. It is also evident in results of the recognition analysis. Here most of the liked places were familiar to the s's, but slightly more of the disliked places were unfamiliar. L's tended to like more unfamiliar places than M's; less than one fifth of M likes were unfamiliar but one third of L likes were unfamiliar. Thus kids seem to like what they know.

38. RECOGNITION: FAMILIARITY AND PREFERENCE

	(% of total places)	
<u>LIKED PLACES</u>	<u>Middle class</u>	<u>Lower class</u>
FAMILIAR	15%	21%
UNFAMILIAR	4%	11%
 <u>DISLIKED PLACES</u>		
FAMILIAR	8%	9%
UNFAMILIAR	9%	12%

E. IMPLICATIONS OF THE RESEARCH FOR THE DESIGN OF
EDUCATIVE CITIES

1. MAJOR PROBLEMS IN CHILDREN'S CITY EXPERIENCE

Research findings point to six major interrelated problems in Cambridgeport boys' city experience that should be dealt with in any attempts at making the city educative. Possibilities for handling these and other problems are discussed in detail in Part III.

1. Fear. Fear of other kids is one of the principal problems and inhibits children's free use of the city. Physical fears are common also, but not to the extent of social fears.
2. Boredom. Kids frequently complain about lack of things to do and places to go; several kids in fact say this is the reason other kids get into trouble.
3. Limited exposure to the city. Kids spend most of their time in the neighborhood and have only limited exposure to the larger city, although there are clearly many places that would be attractive to them. One serious consequence of their limited exposure is their strong bias--and lack of knowledge--against most unfamiliar places and people. Middle class kids in particular have limited exposure, and are dependent upon their parents for many trips outside the neighborhood.
4. Parental and institutional restrictions. Parents--especially middle class parents--restrict their children's travel (often with reason) and institutions, industry, businesses, and police do little to help kids use the city and in fact usually discourage kids' attempts to find things out.
5. Transportation limitations. Besides being limited in their travel by fear of other kids and parental and institutional restrictions, transportation agencies have done little to help kids. Kids are often afraid of getting lost, the maps are not clear, buses and trains often don't go to the places kids like--at least not in a direct way--and travel is expensive.

6. Maintenance. Cleanliness and neatness are highly valued but absent in most places in the neighborhood and larger city.

2. LIMITATIONS OF THE RESEARCH FINDINGS

The major limitation of the research findings is the sample: white city boys ages ten to twelve. It would be dangerous to generalize specific results to other age groups, to other ethnic groups, to girls, or to non-urban areas. Nonetheless, broad findings such as the problems of fear, boredom, limitations in kids city exposure, or the importance of open space in their city value and use would be expected to apply to city children of many ages and socio-economic groups; the detailed findings--favorite activities, places, specific values--are most restricted. It should also be noted that since the research was done in the summer, summer activities and places are no doubt stressed in subject responses; this is probably no serious limitation because at other times of the year children spend much of their time in school or indoors during winter.

Caution should also be exercised when interpreting the findings because of possible discrepancies between stated values and behavior and actual values and behavior. Many, though not all, of the analyses have been made using s's reports of their values and experience. Distortions may have resulted for several reasons:

inaccurate recall, lack of self-awareness, inhibition, or desire to satisfy the interviewers. It might be particularly dangerous to generalize about s's expected behavior from their responses to pictures of unfamiliar places and people, since real experience may modify stated values. However, most of the conclusions have been made on the basis of data from several sources, most of it relating to familiar environments.

We have tried to eliminate possible biases in the results in several ways: by using a number of methods to act as a check; by using many methods which were "open" and which interfered minimally with subjects' natural responses; by getting to know the subjects and their families as well as we could during the three-month period; and by using two or three judges to review many of the findings. Thus, we are quite confident in the validity of the major findings for the study group. Detailed limitations of each method are discussed in Appendix I.

It might be doubted whether differences attributed to class are indeed class differences or individual differences. Differences between groups are often so striking and so consistent that we are persuaded that class is an important factor influencing many--but not all--aspects of children's city conception and use.

3. RESEARCH NEEDS.

Gaps in our knowledge of children's city use and value are numerous. The most critical need is not for laboratory research but for demonstration experiments designed to promote children's use of the city; such possibilities are outlined in Part III. However, research such as this should be extended to other groups: girls, blacks, different age groups, and to children in suburban or other urban areas or even in other countries. Particularly helpful would be studies over a long period of time of children's growing and changing city conceptions and use; this would aid understanding of the environment in long-term development. It would also be helpful to work with parents more extensively to trace influence of parental city use, value, and knowledge on their children.

Several specific studies would be worthwhile. Vivid and detailed documentation of kids' city experience would be valuable to researchers and designers; film might be the best medium for this, in fact such films might be made by kids just as they made the photo surveys here. Study of children's use of specific place types might also be productive; wastelands would be one of the most interesting since little has been done. Children's fears in the city, especially social fears, deserve special attention; methods for

reducing the problem are of course the critical need. Children's attitudes toward unfamiliar environments and people and means for reducing such prejudice through environmental education are another important problem. Suggestions for future techniques are made in Appendix I.

PART III: POSSIBILITIES FOR MAKING CITIES EDUCATIVE

PART III: POSSIBILITIES FOR MAKING CITIES EDUCATIVE

A. CRITICAL ISSUES

At this point there are as many questions as answers on the problem of educative environment. One of the most difficult issues will be protection of users of such environments. This is particularly serious when the users are children. Who is to say what is good for the young? It can be reasonably argued that children deserve control over their development since their life is their own and they know best what their needs and desires are. But the threats to the old of increasing freedom of the young, of giving them control over their own growth are apparent. Adults usually presume to know what is best for children by virtue of their own experience. They feel that they can foresee the long-term consequences of experience better than innocent children. Children are considered to lack the experience necessary for responsibility and may in fact be confused by such freedom. Since children are less verbal, less experienced, less aggressive than adults, the tendency has been for adults to develop the theories and to manage the institutions that shape children. Children are a highly vulnerable group with few rights and are subject to manipulation by parents, institutions, media, and business. This does not mean that children could not represent themselves if

encouraged. They should be given opportunities to represent their interests and to become involved in issues that will affect them. Although there have been few precedents, such experiments are needed.

If a city were to develop programs in educative environment, several organizational questions must also be answered. To what extent should program management be centralized or decentralized? Freedom of action would be more likely if numerous unrelated efforts were carried out independently through private groups, agencies, and institutions. In this way, innovation and diversity of approaches would be more likely and the bureaucratic jungle could be avoided. However, funding would be difficult and such programs would be slow to materialize. In addition it would be difficult to experiment with possibilities that involve large parts of the city (such as the transportation system) since it would be necessary to coordinate several agencies and groups. On the other hand, centralized organization would make funding and coordination with other programs easier and for this reason might be the best way to begin. However, it would be important to structure it in such a way that it could avoid becoming a cumbersome, authoritarian institution that discourages participation of community groups and innovation. Precedents for centralized programs that seem to have avoided many of these pitfalls have been described

earlier: Boston's Summerthing, the National Park Service, and Philadelphia's Parkway Program.

Other organizational problems will be to involve users both in design, management, and evaluation of programs while protecting the rights of non-participants. To prevent environment from becoming a propaganda medium it will be necessary to maintain user control, to protect individual privacy, and to encourage diversity and conflicts in content. Thus, it will be important to prevent control by a small group that does not represent the interests of the larger population, particularly if that group is attempting to persuade others of its viewpoint.

An essential step for benefitting from experiments and for making programs responsive to users will be to establish methods to evaluate educative efforts. Evaluation of past experiments in educative environment as well as of new approaches are needed and should be a continuous part of any program. Evaluations should be done by outside groups as well as by the users, possibly through techniques similar to those developed here (See Appendix I). The problem will be to agree on criteria by which success is to be determined, for the values of users, makers, and of other groups might be in conflict. Moreover, concepts of what constitutes learning and development are diverse. In addition, public response to

experiments might be strongly influenced by their novelty; it will also be difficult to trace the effects of experiments on users, since there are many other factors besides the experiments that would contribute to learning and behavior.

B. ONE POSSIBILITY: AN URBAN SERVICE FOR CHILDREN

The foregoing issues along with the problems raised by the research make it impossible to say with assurance what policies for educative environment should be. What is needed is a series of wide-ranging experiments testing a variety of possibilities. There are numerous ways to begin such experiments. For example, a central agency committed to education, transportation, or recreation might sponsor a major program. Another alternative would be a series of small independent efforts through private foundations, institutions, or citizen groups.

One approach is explored here: an Urban Service for Children. Although this is only one of many possible directions, it is promising, at least in the beginning, because it could experiment with a variety of ideas and could involve numerous interest groups while still avoiding the likely problems of funding and cooperation characteristic of totally decentralized approaches. It would, however, depend on support from some central agency.

The values of an Urban Service for Children and its precedents have been discussed in Chapter I. Here the possible functions and structure of such a Service are suggested. These are based in part on our research findings and in part on speculation. Research has set the directions for many of the policy suggestions but proposals have by no means been limited to research findings, since the research is necessarily too focussed for policy needs and is more concerned with what is than with what could be.

Although we think that an Urban Service should be designed to serve all social groups, programs for children will be developed here since they have been the object of this study. The following proposals are intended at least for a social group similar to that of the study: urban ten to twelve year old white boys. Much of what is proposed might be appreciated by much younger children and often by teenagers and adults, by girls, and by children of any ethnic or racial background. However, more study is needed on the specific values and needs of these other groups before we can confidently evaluate the general appeal of many of the recommendations.

1. The Functions

What then might the general aims of an Urban Service be?

Several problems in children's city experience are apparent:

fear on the streets, lack of things to do and places to go, limited experience and knowledge of the city along with strong biases against unfamiliar or unusual places and people, restrictions placed on free city use by parents, institutions, and the transportation system, and dissatisfaction with the maintenance and appearance of the city. Four general goals for an Urban Service are suggested and relate to these problems and to the values of educative environment discussed in Part I:

1. GROWTH AND DEVELOPMENT: Expose children to the life of the whole city. This should be independent of adult supervision whenever possible.
2. DELIGHT: Make city travel and places more fun for children by heightening surprise, sensory delight, involvement.
3. SAFETY: Make city travel more safe for children.
4. ENVIRONMENTAL CHANGE: Encourage children to clarify their own environmental image, to learn about the process of change, and to become involved in environmental change.

To accomplish these goals, the Service might perform five basic functions, each of which will be described in detail:

1. Promote city travel by children, independent of adults.
2. Increase safety on the streets.
3. Create new "educative" settings in the city.
4. Provide environmental information and other amplifiers in the existing city.

5. Create new city activities for children, including environment making and management.

a. TRAVEL

Increasing city travel is essential, for it is the means for discovering the living city. Travel without adult supervision is particularly needed, because it is the best way for a child to learn about himself and to know the city. This does not mean that contact between children and adults should be discouraged; rather, communication with other age groups is needed in which the adult is not an authoritarian leader. As we have seen, the experience of the children in the study group, especially of middle class children, was largely confined to the neighborhood. The neighborhood, however, offered limited choice of things to do, places to go and their knowledge of places and people outside the neighborhood was limited. In addition, they had strong and unfounded biases against the strange and unfamiliar--biases which restrict their own freedom.

Some might argue that programs of neighborhood enrichment are needed instead of travel to other places. There are two major problems with the "local enrichment" approach. First, an enriched neighborhood soon becomes familiar. The great value in travel is that it forces one to confront and adapt to unfamiliar situations. Familiar places also become boring, as the research revealed in several instances. Second, it is not likely that a neighborhood could simulate the variety a city has. Biases against

other places and people are likely to be reinforced by local enrichment. Furthermore, poor neighborhoods would be particularly disadvantaged and could not afford enrichment programs. Promotion of travel is the best and most economical alternative.

When parents were asked how they would feel about their children travelling about the city if it were encouraged by a new citywide program that provided kids with travel services, nearly all parents were in favor of the idea. Some liked it because "anything to keep kids busy would be good." Others felt that travel was an important part of growing up:

It's important for kids to travel so that they will become interesting people.

Children have to learn how to handle themselves.

Kids must mingle with people to learn how to behave and to learn how to keep interested.

Boys will be boys--they have to explore.

What types of places should be visited and known by kids and why? Emphasis should be given to places they value highly, but about which they know little or would like to learn more and to places against which they have unfounded biases. For example, open space areas are among the most highly valued places, especially water areas, natural areas,

amusement parks. Of these, knowledge of natural parks is most limited. Similarly, considering their high value of water areas, they should learn more about such places, especially those where they could go swimming. Water areas and amusement parks are most often visited with adults; kids should learn how to get to these on their own. Other kinds of open space that exist but which they lack experience with are bridle paths, fishing places, foot trails, areas for climbing, places with animals, Bike roads are particularly high on their list of "learn more" places but few are known about. Trips to playgrounds and parks in other neighborhoods might be promoted to help kids get ideas for their own parks. Other types of entertainment and recreation places are also highly valued, especially professional sports, and indoor recreation, both of which are relatively unknown.

Kids also love high places where they can look out, particularly if it involves an elevator ride or climbing; few of these places were known, though there are numerous opportunities in the Boston area, for example the Custom House Tower, John Hancock tower or observation towers in places like the Blue Hills Reservation or Ft. Warren on Georges Island in the Harbor. Besides having fun in such places, kids would learn landmarks that would help them in city travel. These are often unknown to them now, as we saw in city knowledge analysis. Likewise transportation centers and vehicles, bridges, construction projects, auto showrooms, and historic places are well-liked

but not well-known. Interesting activities could be developed at such places to make visits attractive to kids.

Familiarity should also be encouraged with places that are not well-known or well-liked, but that would seem to have potential for becoming attractive or educational for kids. For example, kids have little contact with other towns and centers in the metropolitan area. Similarly, few institutions are known, but they are highly valued. Most of kids' institutional experience is now in the company of adults, but this is not a necessary condition. Boston has dozens of institutions that would interest kids but which are unknown to them or visited only with adults; for example the Science Museum, the American Museum of Negro History, Antique Auto Museum, the Babson world globe and relief map of the U.S., Blue Hills Trailside Museum, Children's Theater, Children's Museum, the Aquarium, the Zoo, Drumlin Farm, or the Harvard Museums. Kids also have interests in the workings of city departments like the police, the mayor's office, or fire department.

Finally, visits to places about which kids have many prejudices and little knowledge should be promoted. Ethnic areas and other neighborhoods stand out here, as we have seen. For example, trips to Italian, black, Jewish neighborhoods should be encouraged, particularly if something that kids have a

natural liking for can be found there as a magnet. Considering children's interest in eating, food might be an attraction in many areas, particularly ethnic areas. High culture--concerts, art, sculpture, theater--seems to be almost as distasteful as strange neighborhoods; most kids had little interest or knowledge of such places. Perhaps they might warm up to these with a trip to one of the museums or concerts they have never attended. Factories too, are low in value, probably because there is little to do there now, but many of them might offer trips inside their plants that would be interesting to kids, as the Necco candy factory, Cains Potato Chip Company, or Coca Cola now do for adult-supervised trips.

What techniques might be used to promote travel? Certainly one of the first steps is to inform kids about new places: where they are, how to get there, what can be done there. Street corner directomats or other information dispensing devices should be located at frequent intervals along major paths throughout the city. An important purpose of these would be to arouse children's curiosity about the city and to help them make plans so that they can use and learn from the entire city. Specifically, these would (1) explain one's location in relation to the larger city, (2) describe possibilities for things to do, (3) suggest places to visit in the area and explain how to get there, and (4) provide a phone

allowing children to contact home or to get additional information from a city information service. Pictorial maps, pictures, slides, films, or sonic messages would probably be the most effective means of presenting the information because they are involving and easier for children to understand than printed words. Devices should be designed so that children can activate them and select for themselves what they want to learn about. Such information sources should be accompanied by an array of simple guide signs, containing perhaps a picture of the place and simple directions for finding it. These would be located at intervals along the route. Frequently changing picture posters of different places might also be located throughout the city to encourage kids to think about and visit places they may not know.

Guide information should be provided along major paths such as those connecting with shopping centers, playgrounds or parks, major public transit stops, or schools. Paths for specialized kinds of exploration might connect with the major path. These should be designed to present a variety of experiences; some may present local history, architecture, or geology, and others could focus on the people, commerce, industry or ecology. Symbolic markings painted directly on the path or on buildings would help children find their way and would also add color to the city. As we have seen, bike paths especially would be welcome, at least to more middle class kids. An Urban Service would do well to attempt

creating a continuous network of bike paths throughout the city, cutting through a variety of territories. These would be relatively easy to develop and would provide a good structure for kids to get to know the city, while having fun. The great advantage of such paths over pedestrian paths or regular public transit is that when on a bike, a child can plan his own routes, though social contact of the subway and bus are reduced. Vacant land along railroad tracks, alleys, or river edges would be good locations for initial segments of such paths. In dense areas, special lanes for bikes only might be marked on the pavement or sidewalk.

Human guides too would be effective. An Urban Service might have an urban counterpart of the National Park Service Ranger Corps--a staff to take kids on trips, tell stories, answer questions, give instruction on map and subway usage, or to help kids with their problems. Such a corps would provide interesting and worthwhile part-time jobs for many high school and college students.

Another type of guide service that kids would profit from would be something similar to the AAA. The Urban Service might have small offices or mobile centers throughout the city with a staff member that helps kids with their travel problems. If a kid wants to go somewhere but doesn't know how to get there or wants to find out about a certain kind of place or is just looking for something to do, the Service

could chart his route, estimate costs and time, and suggest activities. This would make travel seem very special and would give children (and their parents) much more confidence about travel. A travel book designed for kids--a kid-style Fielding's or Michelin guide--would also be a helpful supplement. This might be largely a book of color pictures of places to go--a catalogue listing what can be done there, how to get there, costs, dangers or problems, and perhaps place ratings by a panel of kids.

A final method for promoting city travel would be to work through the public transit system. A special fleet of busses could take kids on surprise trips lasting from thirty minutes to a full day long. Busses would stop periodically at predetermined stations but would take kids to unknown places--the only information available before the trip would be duration of the trip. Kids from different neighborhoods might be picked up for the same trips so that they get acquainted. Fees on regular busses, or subways should be reduced for all kids under 18 and ideally would be free--at least on certain days--to encourage travel. An arrangement might be made with taxi companies to give their seats to kids when they are not on call. A similar policy might be adopted by other travel modes, even planes and trains, so that kids could even go on long distance trips at minimum cost.

b. SAFETY.

Along with encouragement of travel by kids comes the problem of safety. Just giving kids throughout the city more to do--especially worthwhile things--may in itself reduce social dangers. Some s's reported that they made trouble because they had nothing else to do. One good way to make both kids and parents less fearful of city travel by kids would be through the staff of guides already mentioned. These could act as monitors who could be stationed at known points in the city and who would wear a recognizable insignia. A second aid would be public phones that children could use, similar to the policephones; existing police phones would be usable if placed within the reach of smaller kids. Alarms either on the street or clipped to the kids' belts would also be useful. Another more elaborate technique would be a shortwave radio or signal device through which kids could contact nearby aid. Education could help too; kids should be encouraged to talk about their problems on the streets in school and to work out solutions together. One difficulty is in learning how to recognize danger and the second is knowing how to cope with it. Self defense education would be one approach. Kids might also be encouraged to travel in groups or with a guard dog. An Urban Service could provide kids who are afraid to go somewhere alone and who have no one with whom to go with an older companion. Traffic, the other common fear, is much less difficult to manage than social fear. Teaching kids where danger

exists and what signs and signals mean will in itself make them more cautious and competent. But care must also be taken to identify danger spots for kids carefully, in a way that will mean something to them.

c. EDUCATIVE SETTINGS.

So that city travel will be inviting to kids, there will have to be places to go, things to do, things to learn. To be sure, there are many attractive places that now exist but that are under-used by kids, such as those already discussed. However, there are many possibilities for heightening opportunities, either through completely new settings, environmental amplifiers, or new activities.

New educative settings might be designed to provide experiences that are not now available in the city. One approach would be in the direction of the outdoor museums that we know attract kids. These could be on a much smaller scale. Mock-ups of unfamiliar environments would provide a new kind of informative and imagination-evoking playground. Almost a whole culture could be represented in a small setting through its architecture, signs in the native language, native objects, materials, tools, or even costumes, food, or sounds. Here one could try out different habitats and life styles in a street or square from old Europe, an Indian camp, a jungle, a cave dwelling or in futuristic settings like a moon settlement or a dymaxion

house. Settings from cultures against which children (and the U.S.) show strong prejudices should be included: Asia, Africa, the Middle East. Such settings need not be large but could be part of a playground or could be fit onto odd pieces of unused land. Some might be connected with actual city activities. For instance, traditional crafts shops might be encouraged through Urban Service subsidies. An old time cobbler's shop could be connected with a modern shoe store, so that children could see how shoes were once made. Similarly, old cars might be displayed along side the new, a Daguerreotype studio with a modern camera shop, an old printing shop as part of the daily paper, an old style kitchen at the supermarket or in a restaurant, or a revival of Paul Revere's shop. Here children could watch craftsmen and could in fact try it themselves. In view of kids' attraction to vehicles, the idea might be extended to transportation; old vehicles like the horse-drawn carriage, an historic ship, an old subway train, or a London double-decker bus could offer trips for kids only.

Settings need not be from other places; sections of the living city could be preserved or restored in the old style, complete with shops, signs, and trades and technology of the period. Some locales might even be made futuristic and would be ideal testing grounds for new housing technology. Other possibilities might include tromp l'oeil or other visual or auditory illusion environments, neighborhood gardens

or zoos, giant musical instruments that could be heard over the city, frog ponds, or minnow streams. Mobile settings would be a possible way for increasing kids access to special environments throughout the city. These could be sent to a different neighborhood each week. One week a neighborhood might have an observatory, on another an aviary, a movie mobile on city history, a covered wagon, or children's weather station.

Love of climbing and of height and view are other favorite activities that settings should provide for. Wastelands would be prime territory for constructing hills, ditches, "mountains"--indeed, places where the geography of the nation could be simulated on small scale: desert, mountain, valley, grassland, swamp, forest. High places could be constructed throughout the city for climbing and looking, or more likely, existing structures could be made safe and official like church steeples, school roofs or the tops of office buildings.

Settings could also be made inexpensively with junk. Cities might have a counterpart of grandma's attic--an outdoor public place with random relics from the past. Wastelands would be ideal sites for such collections and would put to use waste objects. As publicly owned equipment is replaced by more up-to-date versions, the discards could be placed selectively in such a "museum", for example old road machines, lamp posts, signs, mail boxes, fire hydrants, pieces of buildings, busses,

subway cars. Artifacts might be supplemented with information on where the objects came from, their ages, and how they were used. Such places would stimulate imaginative play and would provide a richness now lacking in most urban play environments, including children's homes.

Wastelands could also be settings where kids could make their own places, much as they do now, though on a larger scale. In making environments for their own use, children would become more aware of other environments and of their own environmental values and needs. Kids could be given short-term leases on vacant land along with materials furnished by the Urban Service that could be used as kids wished: for forts, gardens, camps, social centers, shacks. These temporary property rights would allow kids to establish turf in strange areas where they now are aliens. Groups could acquire property by trading, selling, conglomerating. However, resistance to such uses of wastelands can be anticipated; the seclusion of most such areas would usually mean lack of supervision, the possibility of danger, or freedom to engage in activities not approved by adults. A partial solution to the problem might be to appoint older kids to monitor such places, thus keeping adults out of the picture while still providing some control.

Information or communication playgrounds would be another type of setting worthy of experimentation. Instead of the usual playground equipment, the setting would feature equipment for developing skills in expression, reading, math, physics. Multi-faceted film sculptures could allow children to choose films on subjects ranging from the city to hieroglyphics or swimming. Question-answer machines could engage children in intellectual games on a number of topics. Other possibilities would be graffiti walls, and teletype printers and receivers, closed circuit television, or radio for cross communications with other such playgrounds in the city. Responsive settings might be created to heighten environmental awareness as well. Places could be made where children could experiment with critical environmental variables like sound, light, color, space--perhaps even smell or heat. Sense impressions could be changed in quality or emphasis, allowing a child to program an environment and to then respond to it. Such places might require somewhat elaborate equipment and maintenance, however.

Some indoor experiments of this type have been tested by Sheridan Speath in an attempt to create open learning environments that minimize authoritarian teaching.⁹ Devices include booths where children select and listen to recorded stories and a board with lights in the shape of a book page which teaches order of words on the page and which lights

up when children press proper words. Others are a musical spiral staircase which lights up when stepped on in proper tonal sequence and a manipulation board full of gadgets and buttons of all kinds that teach finger dexterity and control, as well as sequence operations.

One of the more interesting devices is a long tube with a color sequence on it that lights up from left to right according to sound level. Children not only learn about acoustical intensity, but are fascinated when colors respond to whispers and shouts. All the devices are designed so that kids can make something happen; the most successful of these respond in light, color, or sound. Settings having a variety of such activities have been found to continuously engage children for several hours and although the atmosphere is informal, there have been no discipline or motivation problems.

d. AMPLIFIERS OF ENVIRONMENT.

Special settings may be one of the most involving techniques for making the city more educative but they are likely to be more expensive than other techniques. Creation of amplifiers of the environment, such as information, have the advantage of covering larger territory at lower unit cost, though they have other limitations already discussed in Part I.

Information might be developed around at least four themes: (1) travel in the city, (2) street safety, (3) exposure of specific places in the city, (4) exposure of unfamiliar or remote environments. Travel and safety information have been discussed in the preceding pages; here we will focus on 3 and 4.

i. EXPOSURE OF THE CITY. Specific content of a children's information system would vary with the area and with the audience, but at least five types of information about the city would seem relevant anywhere:

1. HUMAN LIFE: Who lives where?

The city's social ecology and culture (including life styles, languages, environmental values of groups).

2. PLANT AND ANIMAL LIFE: What other kinds of life exist in the city?

Natural ecology, biology, botany, zoology of the city.

3. ACTIVITIES AND PROCESSES: How is it done?

Production, consumption, transportation, planning, government, politics, recreation, communications.

4. PHYSICAL FORM: How is the city structured?

Variety and structure of the city, architectural character, geography, geology, meteorology, city systems.

5. HISTORY AND THE PROCESS OF CHANGE: How are the social and physical environments evolving?

The evolution of all of the above over time and the relations between city form and the values, social structure, technology, and physical setting of the times.

To communicate effectively with children, information will have to go beyond the conventional conception of what a sign can be. Messages are more likely to be involving for children if they have color, light, sound, or pictures; they would be particularly engaging if they are three dimensional or animated, or if they can be moved or changed in some way by the observer. Attention to what kids like is instructive: juke boxes, pinball machines, candy machines, anything that can be climbed, color, blinking lights, modern up-to-date styles, television, films, carnivals, and perhaps most magnetic of all--food. These will be models for many of the following suggestions for presenting information about the city.

Activities in factories, for instance, could be exposed by opening up walls to allow views inside; these might be coupled with sounds from inside so the scene is even more vivid. Upper floors of selected industrial or office spaces

could be exposed to the street level by means of closed circuit TV or even giant periscopes that run down the side of the building to the street level. Windows alone are an important source of information and displays could be better designed to tell about the place. Certain exhibits at factories might be magnified and projected to show the inner structure of products, for example, a water purification plant could have comparative displays of polluted and purified water. Many of the most intriguing windows are often too far from the ground for a child--or even an adult--to see through. One solution to this problem would be step pyramids that lead up to the sill. These would not only open the interior to view, but would satisfy children's natural urge to climb and could make handsome street sculptures at the same time.

Other possibilities for telling about the local scene would be film loops or slide shows accompanied by sounds that tell about production processes, construction projects, and the like. Equipment could be encased in durable but handsome free-standing columns on the street and films could be periodically changed. Another alternative would be to use store windows for such films. However, the cost and maintenance requirements of film displays are sure to limit their use to a few select locations. A more economical approach would be standard commercial signs which could be designed to inform children as well as adults; such signs should be low, colorful, and should use simple wording along with pictures or objects that will help explain the message--

they might even be designed by children. In addition, signs could be bilingual to teach other languages. The city might also be "loaded" with "sonic signs"--sounds and spoken commentary related to each place; these could be broadcast over a short wave channel so that as kids with receivers pass the place, they also receive the message. These, however, would require special equipment and would become tiresome unless they were changed frequently. Other places might be best explained through guided tours: tours through industries, to playgrounds in other neighborhoods, to the fire station, police station, or through the city hall. In many locations, images and use of the same setting by different groups should be presented to encourage children to see the city from other viewpoints. Such exhibits might consist of photomontages of pictures taken by different groups or films could illustrate contrasting uses of the place.

Many of the most fascinating city activities are the large scale systems like transportation, power, or communication. One effective way for teaching about these would be through outdoor models large enough to walk through. For example a model of the transportation or power systems could demonstrate principles of flow--capacity, rate, control points--with illuminated channels that change in color or sound with changing conditions. Observers could control the system and test the consequences of varying rates of movement or channel capacities. Similar models could be made to explain social migration in the city or ecology and geography of the entire region.

One might learn about the form of the city through models also. Regional ecology and geography could be replicated in a large model of perhaps an acre or two, allowing one to grasp the variety of the region and the relation of its parts. A series of models could illustrate the development of the region at different points in time. Scale of the city could also be taught with models; familiar objects could be placed in the models for comparison with a life size model. Similarly, oversize models of familiar city elements like fire hydrants or mail boxes could help kids imagine what it would be like to be a Lilliputian. Linear measurements--historic and modern--could be experienced by placing distance markers in several systems along common paths: yards, rods, furlongs, meters, cubits.

Interesting parts of the local scene that might not catch children's attention could be heightened by several types of attention directors; for example giant plastic hands that point, graphic markers leading to or encircling selected elements, blinking lights, or sounds that emanate from the place. At points in the city with a fine view, the common telescope is essential but might be accompanied by a control panel that would allow children to activate lights or sounds in various parts of the panorama as well as on a map, thus helping children learn where places are both on the map and in the city. Such techniques of amplifying parts of the cityscape would have to be applied selectively both to protect the environment from being camouflaged by amplifiers and to prevent excessive interference with individual privacy.

To help children understand the relation of the local place to the larger city, views or films of the place from the air could be displayed or a closed circuit television camera could be mounted in a remote part of the scene and could allow viewers to manipulate angle and zoom by remote control. Hidden parts of the local scene, normally closed to view, may have special interest. Viewing tubes could allow one to see what's under the street or a cut-away section of a building could show how it is put together. Geology of the city would be natural demonstrations for underground public spaces like the subway or construction sites.

The quality of the physical environment might also become a topic for information. Major polluters could be pointed out along the skyline or river. Pollution levels could be indicated by colossal sculptures in the form of human lungs that blacken as levels increase. A similar display (ears) could monitor sound levels. Other mistakes in environmental management might be pointed out as well, such as water pollution, housing developments, or highways. It can be expected that such techniques would precipitate controversy, especially if the worst offenders were specifically identified. Thus, a public organization might be restricted to talking about problems at a very general level, leaving the task of harassing individuals to private groups. But successes, too, should be made known to children and visited by them through tours of other neighborhoods, housing developments, parks, shopping centers, water areas, or playgrounds.

History, normally presented unimaginatively, could be made lively as well. One effective way would be to provide activities that interest kids at places of historic or symbolic significance. Another technique would be to present conflicting views of what was to have taken place, for example both the American and British viewpoints of "the Boston Massacre". Contemporary change, too, is made involving through controversy as in the routing of a new inner city highway. The decision-making process in current change could be made vivid through manipulable models that children could change to test the consequences of various policies. Animated models might show how the city has changed or mutoscopes. --the penny arcade movie machines--could be located on street corners to show what a trip down the street would have looked like one hundred years ago or how the place looks at night or during another season. Miniature dioramas inside vandal-proof containers--a city version of the easter egg with the peephole--could depict old scenes or viewing frames could allow one to superimpose the old scene on the new. Commemorative statues and gravestones could even be accompanied by push-button sonic messages and pictures, relating the life of the man in word and image.

But perhaps the best way to present information about the city and to involve children would be through people. One important function of an Urban Service would be to provide

story tellers, street teachers who would relay city facts and legends to the next generation, who would spark interest to deeper learning and experience with the city. Although this approach would be free of the problems that signs and mechanical information devices present, care must be taken to prevent the activities from becoming routine and formal.

ii. PLACE-FREE INFORMATION. City information is usually limited to the local place. However, information could be consciously designed to stimulate children's thoughts and fantasies about other parts of the city or world or about other eras in history, somewhat like the environmental mock-ups already discussed. The surprise scenes and objects out of context would give ordinary places special meaning and might even encourage people to visit the places depicted, especially if graphics were accompanied by descriptions and information on how to get there. A local river could be vividly depicted in an inland area, the heart of the financial district in sunny residential areas or a verdant park in a parking lot. Blank building walls or empty billboards could provide the space. The idea could be extended to the past or to remote places: scenes of Colonial Boston in the New West End, the old Harbor in filled areas like Haymarket or Park Square, London street scenes on Charles Street, San Francisco's Nob Hill on Beacon Hill, or scenes of Rome along the passage under the Central Artery connecting the North End with the Haymarket.

Meaningful objects placed randomly throughout the city would also be evocative and fun to play on. An old boat placed in the South End could remind residents that Boston does have a Harbor. In another inland area an old plane could be combined with information about the airport. Other well-placed and durable objects like old cars, washing machines, a workable pump, buggies, train cars, farm machinery, or wind mills could motivate adults to tell children stories about their past and expose children to things they may never have seen or touched.

Similarly, scale models of national symbols like the Statue of Liberty or Empire State Building would delight children; these could be manufactured inexpensively of fiberglass and placed in playgrounds throughout the country. Objects from other cultures would also generate enthusiasm: a Buddhist temple bell, a rickshaw, a replica of Mayan telephones, a village well, or suits of armour. Objects that normally find their place in museums or dumps could be brought to life on city streets.

e. CITY ACTIVITIES.

Finally, an Urban Service would create new activities for children in the city. Travel alone would be a major activity focus, as discussed earlier, but there are other possibilities as well. Opportunities are needed for children to do meaningful work or to watch and learn from other people doing their

work. For many children this would provide a better education than school and we have seen with the study group that such opportunities are very limited. Children are regarded as incompetents or troublemakers and are shut out of adult life. Although it is against current trends, apprenticeships for kids should be opened in factories, stores, at institutions. To get the movement started the Urban Service along with parents could apply pressure on businesses, particularly on those for whom children are major customers; children could picket against those who don't cooperate. The Service might also help kids set up small business cooperatives run and managed primarily by kids. These could sell at minimum cost things that kids use. Apprenticeships could not only show kids how a job is done, but could expose him to the city as well; for instance kids could spend a few days apprenticing on a bread truck, mail truck, street cleaning machine, police car, tow truck, taxi, or garbage truck. Another approach to apprenticeships would be for the Service to provide itinerant craftsmen, musicians, or artists who travel from neighborhood to neighborhood, teaching kids their skills, with supplies provided by the Service. Fairs or markets could then be set up where children could sell their creations or put on shows.

Other activities might center around getting kids to learn more about their own environmental values and about the city. Children could make films or drawings of places they like

or could take kids from other neighborhoods on trips to their hangouts. Kids could organize radio and television programs or newspaper columns on city problems. They could even become important activists in improving the environment and could demonstrate en masse against environmental atrocities.

Another possibility related to kids' interests in camping would be residence exchange programs. These would encourage kids to learn about other families, neighborhoods, and housing. Kids could spend a few days living with a family in another part of the city. An Urban Service could seek volunteers throughout the city; expenses would be paid to sponsors if necessary. Kids could sign up for an area where they would like to spend a few days and the Urban Service would match them with a family. A variation might be urban camps or hostels in different neighborhoods set up only for kids-- an urban alternative to the country camp might be especially attractive to suburban kids for whom the city is an ideal environment. Hostels might be designed to allow kids to test alternative types of housing or life style: trailer houses, mansions, house boats, tower apartments, suburban houses, cabins, the kibbutz or an extended family.

But the most important activity for kids would be the design and management of the Urban Service itself. Kids should be closely involved in planning the service: suggesting activities,

designing and building bike paths, designing play grounds, evaluating the Service's programs. One of the most useful activities would be to engage children in maintenance and operation of many of the Urban Service facilities such as information booths, signs, special settings, guide services, or policing. In fact, since children seem to value maintenance so highly, why not set up city maintenance corps staffed by kids? Maintenance jobs would be organized around things kids care about; they could plant flowers and trees, fix holes in the streets, paint colorful designs on dirty buildings, check polluters, and keep the parks and play grounds clean. The organization could work on a merit system similar to scouts (but with pay) so that children could work their way up from street sweepers to street monitors with the power to give tickets to offenders. Older kids could staff information booths and could act as guides or street police.

2. THE STRUCTURE AND STRATEGY FOR DEVELOPMENT

No real precedents exist for the type of organization needed to achieve the proposed program. Although one approach will be outlined, the problem of setting up such an institution demands more intensive study than can be given here. In many ways the National Park Service now performs a similar service, but it operates only on Federal land, is very centralized, and normally works outside urban areas. The Parkway Program analogy is not satisfactory because it is part of the established school system and focusses on academic programs and not on development of the city. What is needed is a new organization that combines physical design and planning with education and activity programs in the city as a whole. It would not be a substitute for school, but rather a supplement. Although it would relate to the functions of several existing agencies, it should be independently organized. Since activity throughout the city would be encouraged, it is important that the Service be organized at least at the metropolitan level. This would insure coordination and equal distribution of services, regardless of economic condition of individual neighborhoods.

The program could be organized at local, state, or Federal levels, but each local unit should be quite autonomous to insure diversity and responsiveness to local needs. Even

within one city, considerable autonomy should be given neighborhoods, agencies, or individuals who participate, provided the general aims of the Service are met.

The Service might be set up as a public corporation to provide fund raising capability and to maintain public control, while remaining relatively free of administrative and political problems in the city government. Its main functions would be to develop sites and programs of unique interest and to encourage and coordinate area-wide participation of local public agencies and private organizations. Cooperation with several organizations would be important: the parks department, public transit agencies, industry, colleges and other institutions, the school department, outdoor advertising, and businesses. Although general management of the Service would be handled by adults, children should be engaged in program development. In many cases children might actually participate in the design process. In others, it may be most productive to involve children mainly in the evaluation phase of programs. Each program might have a city-wide advisory committee composed of children to act as a check on program development (a major shortcoming of public school education where teachers and administrators accroach leadership).

How could cities be convinced to embark on such a program? With the growing problems of public education, youth, leisure, street safety, and the increasing interest in environmental quality, the benefits of an Urban Service would be expected to be appreciated. An important step toward making the idea more attractive will probably be to propose the Service for all population groups rather than just children. A major obstacle will be funding. To get such a program started and to convince cities to test its value, it would probably be necessary to obtain initial funds from Federal sources. Supplementary grants for experiments in educative environment might be obtained in connection with existing programs such as those of HUD, HEW, OEO, or EDA. Federal grants might be supplemented by low cost Federal loans or matching funds from local foundations, businesses, or the city. After the program is started, the city could take over financial responsibility through a variety of techniques. User fees would be one source of revenue. Membership cards for all Urban Service attractions might be sold to families on a yearly basis; needy families would receive free passes. Other revenue might be obtained from concessions; parts of the Service might be leased to concessioners to operate outdoor museums, provide guide services, food, or information. Franchise fees could then be used in support of the program. The Park Service now leases such space to 200 concessioners who operate shops, restaurants, camps or guide services throughout the park system under terms

set by the Park Service. The Service might also rent its services to schools or institutions. For example, the public school system might hire the Service to take its children on field trips related to its curriculum. Such trips are now infrequent and difficult for the school system to manage, for they require planning, special staff, and transportation. Businesses and industries could perhaps be persuaded to make contributions in the public interest. These would enhance their public image and would be good advertising. In some cases the Service might give outright grants to organizations for developing the educative quality of their property, for instance in historic places. Such a method is now used in the oldest areas of San Juan, Puerto Rico, where homeowners are given maintenance grants for preserving the historic character of their homes.

Several indirect incentives are possible as well. City ordinances such as the building and zoning ordinances, might be modified to permit special development opportunities such as zoning variances in return for exceptional efforts to create sites and activities of educative value to the city. Tax benefits might also be given to those who make a substantial contribution. Perhaps all public programs could even be required to commit some percentage of their funds to making the city educative. For instance, government construction projects might be required to present information on the construction process, the history of the site,

and the nature of the new project.

To begin, the Urban Service idea might be tested in one or two cities for a five year period. Experiments should be designed to both test the organizational structure and the programs and to stimulate community support. The first experiments should explore--probably in a limited way--each of the five parts of the suggested program: travel, safety, settings, information, activities. Specific content would depend upon local needs.

An important part of the program would be its evaluation. This will be difficult; since almost nothing of this type has been done, nearly anything might be welcome in the beginning--programs might be liked because they are novel rather than because they are good. To obtain a reliable evaluation, the program should be tested over an extended period. Answers to several questions should be sought in the evaluation. For children these might be: Do city travel and city awareness of children increase? Do any of the problems such as boredom, fear on the streets, or confusion during travel diminish? How much do kids become involved in program development and operation? Are kids getting anything from the Service besides knowledge of the city? Which experiments are most successful with the kids and why? Are the needs of different age groups met? Could local support be generated for the

Service on a permanent basis? How do parents respond to the Service? Does the Service create problems of competition or poor cooperation with other agencies or with schools?

3. THE RISKS

Although we are optimistic about the value of such a program, there are certain risks. First, there is the problem of control; who is to decide what the content of the programs should be? As we have seen with the Chinese prototype, the techniques of educative environment can become a vicious propaganda weapon if they are controlled by one group, particularly if that group is attempting to reduce personal freedom. We would expect to reduce this possibility by means of a decentralized control system whereby many groups, especially children, contribute to program control and management. An Urban Service would have to monitor contributors' activities to prevent children from being exploited.

A second danger is that the environment might become over-explained and much of the mystery and pleasure of discovery would be lost. Some might worry that the city could become a vast dull school. This outcome is not likely. Given the enormous complexity of the city, the impact of Urban Service actions on the form of the total city is likely to be relatively small. In fact, nearly any structuring that could be given the city would be welcome, especially to children. Moreover, explanation of the city would in most cases not be attempted; rather, the purpose would often be to lead children to places and to let them make of it what they wish. Wastelands are one resource in particular that might best remain ambiguous

jungles. In fact, a policy for protecting such areas from development is probably called for.

Third, will conflicts develop between the Urban Service and the public school system? If the Service becomes successful, many children, especially those who dislike school, will be more attracted to Service activities than to school; they will avoid their homework for better things. If that time comes, the public schools may have to change, perhaps extending their programs to include Urban Service activities. Until then it is best to view the Urban Service as a supplement to formal education--not as a substitute. Moreover, for many courses of study schools as we know them are successful, for they offer a structured, continuous learning under the guidance of a tutor. One could not become a doctor or lawyer through the program we have proposed, though it may help him to become a better one.

Still other limitations could be named: the costs are uncertain; management of such a decentralized program may be difficult; businessmen and police may object to the increasing numbers of kids on the streets without adults. Vandalism to Urban Service facilities may be another problem. As with any public property, these must be designed to withstand reasonable abuse, but can be expected to require periodic maintenance, and in some cases, supervision.

From the children's viewpoint, the greatest problem may be that places designed for them will be dominated by adults, leaving no room for children. This has frequently been the case with carnivals and children's museums. Quotas could be set on adult attendance or places might be accessible only through child-size portals. But if adult visits soared, this would be a happy problem, for it would signal the need for extending the program to other groups.

Parents may become the biggest obstacle and may fear that by increasing the openness of the city, children will come under bad influences or will be exposed to too much before they are old enough to make decisions. We have argued that exposure is particularly important for the young. The dangers of boredom, apathy, and isolation are likely to be far greater and more lasting than contact with the world around.

APPENDIX I: THE RESEARCH METHODS

A. THE SUBJECTS

1. WHO THE SUBJECTS WERE

S's were 28 white Catholic boys who had just finished fifth or sixth grade (10-12 yrs. old) and who lived in the section of Cambridgeport between Sidney St., River St., the Charles River, and Cottage St. There are about 125 10-12 year old white boys in this area and about half of these are Catholic, so we were working with about one fourth of the boys in this age group (about one half of the Catholic boys). Two groups of s's were selected--lower or working class and middle class (probably closer to lower middle). Social classification was based on (1) income, (2) occupation, (3) dwelling and other observable possessions, (4) family size, (5) kid's friends, and (6) values and aspirations. Conversations with the parents (usually in their home), interviews with kids, and talks with a local clergyman who knew local families well provided information to aid in classification. Of the 28 s's, 13 were classified as middle class and 15 were lower class. Boys were selected because girls at this age, according to our information, don't do much in the city and when they do they're following boys. Inclusion of girls would also have meant enlarging the sample and therefore our research task. Cambridgeport was selected because (1) it is centrally located in the Boston area, (2) considerable data had already been collected on teenagers in the area by CDRC, and

(3) it has a mixture of income and ethnic groups, thus allowing comparison of space use of different groups in the same area.

Subjects were further organized by friendship groups. We thought we might get more and better information from a group of s's than from an individual in some of the methods like the photo survey discussion or trips. This seemed especially important in working with children because a single child might be very timid in talking to a strange adult or may tend to give responses that he thought were expected of him, rather than responses that he truly felt. In other words, we thought a child would be more "himself" in a group of his peers. There were six groups of three friends each: three working class groups and three middle class groups (10 of the 28 subjects were not in groups). We thought it important to hold group size constant, since that is an important variable in behavior. Most kids did not have more than two friends, all of whom could agree that they were friends. It was difficult to identify friendship groups that also satisfied our other requirements. This took two months. We didn't know if a subject was going to be useful until we'd talked to all the kids who were potential members of his group, and by that time we had made a big investment. Several subjects (10) were involved in the program who could not be fit into groups. In this sense, group

research (given our requirements) is uneconomical, except for the data produced by s's not in groups that relates to their individual experience.

Problems of Group Research With Kids

1. Disorderly conduct is frequent
2. Kids get restless more quickly.
3. Individual thoughts are often suppressed
and group members are often dominated by a leader.
4. It is difficult to get them all together at one time.
5. At least one research assistant is necessary to work with a group of three. Larger groups would require more assistants.

Advantages of Group Research

1. Timidity of individuals is reduced, though this wasn't a big problem with individuals. However, when kids were in groups they were much more open and would say things they'd never say alone. I felt that I got a better idea of what the kids were like when I saw them in groups.

Note: The problems and benefits of individual research are the opposites of the above statements.

2. Peers are a good check on individuals. Conflicts with friends often lead to interesting facts.
3. It's more fun to do research with groups both for researcher and for kids and it requires less repetition of the same things, given the same number of s's.
4. Less probing is required from the researcher because members of the group stimulate each other. Good responses seem to result naturally from the group situation and the researcher's main task is to keep the group on the subject.

2. HOW WE OBTAINED SUBJECTS

The clergyman provided us with an initial list of kids that he thought would satisfy our specifications. This was a great help in the beginning and provided us with about half of our s's. The problem with his list, we soon learned, was that it largely eliminated trouble makers, e.g. the Dana Park bunch. Kids from unstable family situations had also been left out.

Initial contacts were made by telephone. Mothers were called and the work was explained. They were usually willing and interested in having their children participate. The research was conducted in a local school which helped us convince parents of our legitimacy. We made an appointment to pick up the kid at his house before the first session. This allowed us to talk with the mother, to see the home, and it probably made the kid more relaxed. A letter was given to the mother at this time explaining the project and who we were (see Parent Letter). In general this procedure worked very well. (Sometimes mothers were afraid that I was a psychiatrist who was going to psychoanalyze the kids and do mysterious experiments and tests or make a TV film showing how bad the kids and their parents were--they had read about such things or seen them on TV.)

For a while we thought it would be a good idea to get s's by having kids tell their friends about the project and to then bring them along. This did not work out at all. Either the friend would be of the wrong age, race, class, or area, or the friends would never show up. It worked best if we got their friends' names and then contacted them ourselves.

Middle class kids kept appointments well except for a baseball playing bunch, who had to be reminded the night before or picked up at home. S's were paid 50¢ per hour and this was welcome to most of them and often provided them with their first job.

Most problems arose in obtaining lower class kids, though these were the most interesting and need help the most. It was often impossible to reach them by phone, either because they didn't have one or because mothers worked and the kids were out. Most of our lower class kids were recruited from the street or found by getting names of kids from s's we already had. When we finally involved the lower class kids, it was difficult to keep them coming. Appointments and money incentives meant little to them and we had to round them up for each session. This was enormously time consuming and frustrating. Sometimes we were lucky to get two subjects a day. (Teens told me

the only way to keep them coming would be to "give 'em a free jug"). Once involved, they were enthusiastic and productive. However, their gang mates would often disturb the session by yelling outside the windows or scaling the walls of the school and climbing in the windows. We would have taken the whole gang but most of them were too old. We also had problems with lower class kids threatening middle class kids outside the school building.

Incidentally, throughout the summer groups of yelling girls often stood outside our windows, begging to participate because they said they didn't have anything to do. We gave them a few jobs like going around to spy on what the boys were doing or to find more kids for us, but unfortunately we couldn't fully involve them.

3. IDEAS FOR INVOLVING CHILDREN IN RESEARCH

Boys of this age group are fascinated by climbing, playing pinball machines and pool, smoking, and eating (especially food from machines). The auditorium in Blessed Sacrament School had been serving as Teen Center during the summer and consequently had pool tables, juke boxes, and candy and pop machines in it. Kids who came to talk to us were invariably attracted to these things and begged to use them. They were also attracted to the possibility of vandalizing the school, a year-around pastime. Unfortunately,

we couldn't let them play in the school because the equipment was not our responsibility. This also would have created too much distraction to other kids whom we were trying to interview. A research station (sound proof) connected with such an activity center would be an excellent way of attracting and holding kids. They could even be paid in tokens that could be used in the machines--machines that would reject money! It would seem that a research center in conjunction with activity centers is a prototype that would be successful for all age groups. For example, research centers might be connected with (or next to) laundries, bars, corner stores, spas, bowling alleys.

A more conventional possibility for work with kids could be a connection with a school. While a steady flow of subjects could be assured, the institutional setting could produce very biased results, although much would depend on the personality of the research staff and the character of the rooms in which the work is done. This was not a particular problem in this study because (1) school was not in session, (2) the Teen Center equipment was scattered around making the place seem more like a pool room than a school, and (3) our relationships with the kids were very informal and permissive.

A third possibility would be a mobile research center which could be taken to the subjects and which could be combined with some other type of service or activity like a food wagon or bookmobile. Advantages here would be access to a large audience without the problems of getting setup each time you move.

PARENT LETTER

Dear _____,

This summer we are conducting a program on cities for ten to twelve year old boys at the Blessed Sacrament School. We hope your son will enjoy participating. It will require two to four hours of his time each week for most of the summer and he will be paid fifty cents an hour. We will work with each child both individually and with his friends at hours that are convenient for him.

Father Butler at Blessed Sacrament is providing space in the school for most of the activities. These activities will consist mainly of conversations and map and picture making. These are not tests, but rather are means of exploring how the city could become a more interesting, educational, and safe place for children to grow up in. We think your son will enjoy doing this and will have the chance to earn some money. Our work is related to the TEENAGER PROJECT that was conducted in Cambridgeport last summer.

The project is being directed by Michael Southworth who is writing a doctoral thesis at MIT on the subject of children's conception and use of the city. He will be assisted by Mrs. Lois Stern, an architecture student interested in housing and community design.

If you have any questions Mr. Southworth may be reached at 523-8019 and Mrs. Stern at 868-0841. Thank you for your cooperation.

Sincerely,

Michael Southworth
Lois Stern

B. THE METHODS

Several research methods were used in this study to obtain information on the same questions. Although this was somewhat uneconomical (since some redundant information resulted), I considered it necessary since I anticipated problems in obtaining accurate and complete information from children. Moreover, I expected each method would emphasize a different aspect of children's city experience because of the nature of the method itself. These problems existed, but not to the extent I had expected. If I were to repeat the research I would focus on interviews, pictures (both photo surveys and other pictorial methods), and trips.

Presentation of methods to each subject followed a general sequence: more open methods such as interviews and photo surveys preceded the more structured methods like "familiarity with elements in the Cambridge/Boston scene" and "map comprehension". This order was followed to minimize the possible biasing effects that structured methods might have on later responses to more open methods. "Classification and value of unfamiliar environments", although quite structured, was seen as a relatively innocuous

exercise that would provide a good activity for getting acquainted with subjects; it therefore was the first thing we did with subjects before we started the more serious business of interviews and photo surveys.

Data collection took one full summer for myself and one research assistant. Each subject came two to four hours per week throughout most of the summer. Analysis of the data took me the following year with the aid of two quarter-time assistants. (As with most research, analysis could have continued much longer, since possibilities for analysis never seem to be exhausted).

The general approach to data analysis was to first analyze the results of each method separately, beginning with the interviews and photo surveys which presented the fullest picture of kids' city experience. After we had gained a feeling for the results of each method, the arduous process of synthesizing and comparing results began. To do this, it was helpful to first organize our impressions of how things related. Certain themes or hypotheses that dominated these first impressions were then identified (e.g. use of wastelands, conflicts between groups, love for water, boredom with city life). Data produced from all relevant methods was then searched for information

relating to that theme. Sometimes very little was found; other times we uncovered heaps of information and occasionally surprising finds triggered new explorations.

LIST OF METHODS (in general order of presentation to subjects)

1. CLASSIFICATION AND VALUE OF UNFAMILIAR ENVIRONMENTS.

S's were asked to group 75 pictures of unfamiliar environments according to similarities they saw in the places. They described their grouping procedures and then described and evaluated selected settings.

2. INTERVIEW AND MAP. S's were questioned extensively on their city experience and value.

3. PHOTO SURVEY. S's photographed parts of the city they valued.

4. INDIVIDUAL PHOTO SURVEY DISCUSSION. S's talked about their photos and answered brief questions about each place photographed.

5. GROUP PHOTO SURVEY DISCUSSION. Each group of three friends discussed together the pictures they had taken and selected those places they valued as a group.

6. TRIP PLANNING. Each group of three friends planned a trip to show us the places they valued and used most in the city.

7. CITY TRIPS. S's were to be taken on unstructured and structured trips in the city. (We had time for only one of these.)

8. CITY KNOWLEDGE. S's were questioned on specific information they had on fifty general types of places, activities, and social groups in the city.

9. FAMILIARITY WITH THE CAMBRIDGE/BOSTON SCENE. S's were asked to identify 135 places selected from the Cambridge/Boston area and to describe their experience with places that were familiar. S's evaluated all places.

10. MAP COMPREHENSION. S's were tested on several types of map problems.

11. VINELAND "SOCIAL MATURITY" SCALE. A brief interview was given to s's to evaluate the extent to which they exhibited independent behavior in activities other than use of the city.

12. CITY DIARIES. On selected days s's kept a log of their city activities.

13. TEENAGE INFORMANTS. Teenagers were questioned on the city experience of pre-teens.

14. PARENT INTERVIEW. Parents were questioned on their attitudes toward their children's use of the city.

CRITERIA FOR EVALUATING METHODS

In evaluating the methods, five criteria seem important:

1. How good is the data generated? That is, how much data does the method produce, how honest is the information, and how relevant is the data to the research topic?
2. How well do s's like the method? How much interest do they have in doing it?
3. How much do s's get out of the experience? Were they rewarded in some way? (e.g. learn about themselves, the city)
4. How interesting was the method to the researchers after repetitions of the same method with many s's?
5. How much time, energy, or materials were required to produce the data?

In retrospect, the interview and map produced most information, both on city conception and use. Photo surveys were especially valuable in discovering the environmental values of the kids and were also fun to do and talk about. "Familiarity with elements of Cambridge/Boston scene" and "classification and value of unfamiliar environments" were

primarily useful for getting kids to talk about the city and their experience. However, as presented, they were somewhat dull to do, but could be developed into interesting techniques. The remaining methods were less fruitful, though each has special qualities that make it attractive. Unfortunately, there was no time to do the city trip experiments we had planned (except for one). These I would have expected to be fun and productive. Of all the methods, I think trips, pictorial discussion, and teenage informants are the methods most deserving of further development and testing.

In the following pages, the aims and techniques of each method are first described, followed by a discussion of analytical procedures and an evaluation of the method.

1. CLASSIFICATION AND VALUE OF UNFAMILIAR ENVIRONMENTS

PURPOSE

1. What do various unfamiliar environments symbolize for kids?
2. Do these results correlate with their values in familiar environments?
3. Do these results differ for the two social groups?

METHOD

Seventy five equal-size color photos were selected randomly from a collection of over five hundred places that were likely to be unfamiliar to kids. Photos were taken from a large collection of magazines and postcards--no pictures were eliminated from the collection that were in color and which depicted a reasonably large-scale environment.

Kids were shown the array of pictures (in the same layout each time) and were asked to put places that were similar to one another in groups and to then explain what made them similar. The grouping task was repeated with groups of pictures they had assembled. S's then picked the places they liked best and least and the places they would like to have near them. They were questioned on why they chose the places and were asked to describe them and what they would do there.

ANALYSIS

1. Grouping behavior was analyzed by group size, number of groups, frequency each picture was included in a group, variety and frequency of grouping reasons, and frequency certain pictures or clusters of pictures were included in groups for the same stated reasons.
2. Frequency of positive and negative evaluations in each evaluation category were tabulated for each picture and for both social groups.
3. All evaluative comments were carefully studied in relation to the picture about which they were made. Predominant types of responses were identified and compared for both social groups.

EVALUATION

1. Pictures are interesting to kids and they enjoyed looking through them. This was a good thing to do for the first session because it was simple for them, required little verbalization, and was a good activity for getting acquainted.
2. If there had been more time it may have been a good idea to let the kids pick the pictures of places out of magazines and to then make the collection from these.

Their photo surveys could have been used in this way also (or at least the places they photographed, since often the pictures were of low quality and were in black and white).

3. It is difficult to analyze patterns of grouping for seventy five pictures except by computer. Our analysis of grouping was impressionistic. Grouping behavior was fascinating; I was often amazed at the places that kids thought were alike and at the reasons they gave. Group size was also curious. Some kids made enormous groups and others found it difficult to put together more than two things.

4. Evaluation and description of pictures produced intriguing responses that revealed much more about a subject than just his reaction to the depicted place. Picture discussion is a good method for getting s's to talk about their experience and ideas. Responses to these unfamiliar places helped us interpret s's responses to their own city and often brought out deeper values (racial prejudice) more quickly than could a picture of a familiar place. Values expressed in this method were strikingly similar to those uncovered in other methods like the interview and photo survey that focussed on the familiar environment.

Thus, it is not necessary to have s's talk about pictures taken by themselves to obtain a good indication of s's general environmental values.

CLASSIFICATION AND VALUE OF UNFAMILIAR ENVIRONMENTSPROCEDURES

1. Begin by carefully looking over these pictures of places.

(Show s array of 75 color photographs of environments. Use the same layout of pictures on the table for all s's.)

2. (After a few minutes)

Now put the places that are similar to one another together so that they make groups. You may make as many or as few groups as you want and it doesn't matter how many pictures are in each group. Just put those pictures together that you think go together. If there are places that don't seem to fit into groups, then put those off by themselves.

3. (When grouping finished)

What makes the places in this group similar? (repeat for each group)

4. Now see if you can make larger groups of these small groups. Are any of these small groups similar to one another?

(continue until three or four supergroups are formed, if you can do it without forcing s. If s makes only two or three groups in (2), then ask him to subdivide in (4).

5. What makes these large groups similar? Different? (Repeat for different combinations.)

6. (Collect all pictures into one pile.)

Now pick out all the places from the whole collection that you like most and least. Put the ones you like most in one pile and the ones you like least in another and put all the rest here.

(If s picks more than ten for either pile, have him pick top ten in each.)

7. What is it that you like (dislike) about each of these? (for top ten only)

8. If you could go to any of these places, which ones would you like to visit most?

9. What would you do there? (for top ten only)
10. How would you describe these places to a friend?
(pick out five pictures each from most liked and most disliked piles)
11. Which of all of these places (likes and dislikes) would you most like to have near you, say within ten or fifteen minutes? Why? Assume that you can have any ones that you want.

NAME

ID

#

ENVIRONMENTAL CLASSIFICATION AND VALUE

2,3. _____ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

REASON

_____ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

REASON

_____ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

REASON

_____ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

REASON

_____ 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

REASON

(IF SUBJECT MAKES ONLY 2 OR 3 GROUPS IN PART I, THEN HAVE HIM DIVIDE THESE INTO SUBGROUPS IF HE CAN. NOTE HOW HE MAKES DIVISIONS ON FIRST PAGE AND LABEL SUBGROUPS ACCORDING TO GROUP FROM WHICH THEY ARE TAKEN.)

4,5. SUPERGROUPS

REASON SIMILAR

SG 1

SG 2

SG 3

SG 4

SG 5

SG 6

REASON SG'S DIFFERENT

SG 1/2

SG 1/3

SG 1/4

SG 1/5

SG 2/3

SG 2/4

SG 2/5

SG 3/4

SG 3/5

SG 4/5

NOTES:

6. LIKE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

WHY (top ten only) HOW KNOW OUT ABOUT

1		6	
2		7	
3		8	
4		9	
5		10	

7. DISLIKE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

WHY (top ten only) HOW KNOW ABOUT

1		6	
2		7	
3		8	
4		9	
5		10	

8. VISIT 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

WHAT DO AND HOW OFTEN (top ten only)

1		6	
2		7	
3		8	
4		9	
5		10	

HOW DESCRIBE TO A FRIEND (pick five likes and five dislikes)

1		6	
2		7	
3		8	
4		9	
5		10	

9. NEAR YOU 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75

WHY (top ten only)

1		6	
2		7	
3		8	
4		9	
5		10	

2. INTERVIEW AND MAP

PURPOSE

1. Where do children go and what do they do in their neighborhood and in the city? What are the frequency and scheduling of these activities?
2. What is the extent of their territory? Are there territory conflicts between social groups?
3. What is the social context in which their city activities occur?
4. What travel modes do they use?
5. How do kids image and value their neighborhood and city in terms of its form, activity and social character? What would their ideal environments be like?
6. What problems do they have in using the city?

METHOD

All interviews were given by me to control the procedure. We started the interview by having the s sketch a map of the important places inside his neighborhood. The subject was given a 40 x 60 sheet of paper and was asked to draw his neighborhood in the center, thus minimizing the effects of the edges of the paper on map configuration. After the

map was outlined, we started the interview. All interviews were tape recorded, since it was important to obtain s's comments verbatim. S's added to the map as the interview proceeded when things were mentioned that related to the map. This made the interview more interesting to s's who might otherwise have been bored, and it also clarified things during the interview. In general, it was helpful to let s's have a pencil and paper during all sessions so they could doodle--this usually had the effect of making them less restless and more productive--we discovered this quite by accident. (It also produces magnificent doodles.) After the neighborhood map and interview were completed, we asked s's to extend their map to places outside the neighborhood and the interview followed with related questions. This map was usually very unstructured and brief, which I think reflected their limited experience with the larger city and lack of knowledge of how places were connected with the exception of a few common trips.

ANALYSIS

Interviews

Interviews were analyzed both for quantitative and qualitative information. Preceding analysis it was important to read all interviews several times so that a general picture could be formed of each subject and of the group as a whole before the information was fragmented for analysis.

Interview content was then organized and analyzed both by interview questions (or set of questions) and by general themes. Examples of themes used are:

1. Type of place: water, wastelands, streets, playgrounds, etc.
2. Danger in the city: physical and social
3. Boredom
4. City travel: modes, routes, social groups, problems
5. Biases: urban/rural, social
6. Environmental quality: neatness, pollution, dirt
7. Desired changes and needs
8. Parental control

Selected information that could be easily quantified was placed on coding sheets (see coding outline and coding sheet). These were organized for later computer analysis by the DISCOURSE program. Each place mentioned by any subject was assigned a coding sheet--since almost 500 places were mentioned, almost 500 coding sheets were necessary. Each sheet contained a place for each subject's responses in 34 different categories: 22 interview items, 1 trip plan item, 2 map items, and 9 photo survey items. Many sheets of course were almost empty, because often only a few subjects had anything to say about a place. The sheets allowed quick comparison of density of responses to any one place, of responses produced by different methods, and of class differences in place responses (middle class

s's responses were in the left column and lower class s's responses were in the right column). Using the coding sheets the following analyses were made and resulted in both maps and tables:

1. Number of places in each category of place use and in each zone for each subject and for each social group.
2. Percentage of s's (total in each class) who use each place and the percentage of s's in each place-use category (this was done for selected places only).
3. Same as (2) for place evaluations.
4. Frequency and variety of activity types in selected places.
5. Frequency of mentions of various activity types (see activity outline in Appendix II.C.)
6. Frequency of place-use mentions in each category of place-use for each place type (see place type outline in Appendix II.A.)
7. Same as (6) for place evaluations.

Maps

Maps were evaluated for content, territory, and structure in the following way:

1. Places and elements shown on maps were listed for each s. These were then grouped by types (streets, buildings and other elements, and friends' homes) and type of detail for both social groups was compared. A composite map showing frequency of indication of all elements by each social group was also made.

2. Size and boundaries of the neighborhood and extent of territory mapped outside the neighborhood were evaluated and mapped for each s and for both groups.

3. Map structure was evaluated for each s and social group according to how reliable the maps would be in helping one travel in the area mapped. Each map was rated by two judges according to 4 criteria that seemed most critical:

a. Accuracy of street connections, order, placement	12 pts
b. Freedom from distortion	4 pts
c. Connectedness of pattern	4 pts
d. Presence of orientation references that help relate the neighborhood to the larger city	4 pts

TOTAL POSSIBLE 24 pts

RATING

Comparisons were then made of relations between map detail, territory, and structure for each social group.

EVALUATION

1. Of all the things we did, the interviews were probably the single most productive item and gave the fullest picture of kids' city conception and use.
2. The most useful analyses were by "theme" rather than by "question" because information related to most of the questions was contained throughout the interviews, rather than being restricted to a particular question. Another difficulty with analysis by question is that distortion is more likely in analysis of subject responses out of context.
3. It is important that all interviews be given by the same person. This not only insures consistent interviewing procedure, but eliminates the problem of s's responding differently to different interviewers because of interviewers' personalities. Great care had to be taken in wording questions so that all kids would understand the questions--several kids interpreted the same words differently.

To avoid this, it was best to state troublesome questions in two or three ways until it was clear that the s interpreted the question the way it was intended. Even more important than wording of questions was tone and inflection of my voice and the context in which the question was asked. I soon learned that some children were very sensitive to cues (such as voice or context) that might indicate what answer I expected or desired from them, though I don't think this was a problem with most kids.

4. Most kids hate questions that require "why" or "how often" type answers.

5. If I had very limited time, I would do group interviews only. Although personal experiences not shared by the group would be suppressed, I think one would get a good picture of their city experience and the whole research process would be more fun for everyone. I tried this with three kids who were not in the study sample and it was very productive for the time required. A stenographer would certainly be useful here because on a recorded tape it is difficult to separate and identify the comments of different kids.

6. It is important to use verbatim subject response in analysis but typing of tapes is very time-consuming and tedious. It took about 3½-5½ hours of typing to cover

a one hour interview (15-25 pages of typing). It was difficult for anyone except myself to do the typing because children often did not talk clearly enough. Also, place names were not familiar to the typists and were usually misheard and mistyped, so I had to check each tape she did anyway.

TIME: 1½-3 hrs.

INTERVIEW AND MAP

PART I

We would like you to draw a simple map of your neighborhood showing the important streets and places--the places that mean a lot to you and the places you go.

(Give s a 40 x 50" sheet of paper. Tell him to draw his neighborhood in the center of the sheet. Have s label places and streets and identify his house with an X. When the map is well defined, begin the interview. Use probes on all questions that require recall of several items. The s may add to map when he talks about places during the interview that are not on the map.)

1. Where do you spend most of your time everyday? (e.g. houses, yards, playground)
2. What are the important places to you inside the neighborhood?
3. When you are with friends, where are the best places to spend time inside your neighborhood? Why?

What do you do there?

How often do you go there with friends?

How do you get there? (mode and route)

4. What are the best places to spend time when you are alone inside the neighborhood? Why?

What do you do there?

How often do you go there alone?

How do you get there?

5. When you are with friends, what are the worst places to spend your time? Why?

Do you go there? What do you do there?

How often do you go there with friends?

How do you get there?

NOTE: This interview is based in part on an interview developed by Stephen Carr and Andrea Cousins for teenagers.

6. What are the worst places to spend time when you are alone in the neighborhood?

Do you go there? What do you do there?

How often do you go there alone?

7. Where else do you go inside the neighborhood that you haven't mentioned so far?

8. Where do other kids hang out? What do they do there? What kind of kids are they? Do you go there?

9. Do girls have any special hangouts? Where?

10. Where do your friends live inside the neighborhood?
(Mark F)

How many of these live within easy walking distance of your house?

11. Of the friends whom you see most often, which live farthest away from your house? Where?

How do you get there?

12. What would you say are the boundaries of the neighborhood?

13. What is the name of your neighborhood? Where does the name come from?

14. How would you describe your neighborhood to someone who had never been there?

15. What streets in this area are the nicest? Why?

Which are the worst? Why?

Which are the best to play on? Why?

Which are the worst? Why?

16. How would you say the houses are here?

How do they compare with those in other parts of the city?

17. How would you describe the people in your neighborhood?

Are most of the people alike or are there a bunch of different groups? Explain.

Are the people here of any particular nationalities or religions?

18. How well off are the people in this neighborhood would you say?

How do they compare with other parts of the city?

19. How do the kids in this neighborhood compare with those in other parts of the city?

20. Do you ever want to move out of your neighborhood? Why (not)? Where?

21. Is anything missing in your neighborhood? What?

22. How would you change it if you could do anything you wanted?

23. Of all the places that you know, that you've been to, where do you think would be the best places to live? Why?

24. Of all the places you've heard about or imagined what would be the best places to live? Why? How did you find out about them?

25. Is this an interesting area to live in? Why (not)?

What would be the most interesting area to live in that you can think of? Why?

26. Do you ever get bored? How often? Why?

Do other kids get bored?

27. What do you know about the history of your neighborhood?

IF NO ANSWER: Are there any old places that are important? How did you find out about this?

28. What do you think this area was like 100 or 200 years ago?

How did you find out?

29. Do you think the area will be different in 10 or 20 years? How?

PART II

30. Would you say that you spend most of your free time when you are with your friends inside or outside the neighborhood?

31. Would you say that you spend most of your free time when you are alone inside or outside your neighborhood?

Now I would like you to expand your map. Show the places you go outside the neighborhood to other parts of the city. If you have friends who live outside the neighborhood, show their houses. (Mark F).

32. Are there neighborhoods outside your neighborhood?

What are they like?

Are they different from your neighborhood? How?

33. What places do you go outside the neighborhood?

What do you do there?

How do you get there?

How often do you go there?

With whom do you go?

34. What are the farthest away places you go outside the neighborhood?

How do you get there?

What do you do there?

How often do you go there?

With whom do you go?

What are the closest places outside your neighborhood that you visit?

How do you get there?

What do you do there?

How often do you go there?

With whom do you go?

35. Where are the best places to go outside the neighborhood if you're alone? Why?

What do you do there?

How do you get there? (mode and route)

How often do you go there alone?

36. If you are with friends where are the best places to go outside the neighborhood? Why?

What do you do there?

How often do you go there with friends?

How do you get there?

37. Where are the worst places to go outside the neighborhood? if you are alone? Why?

Do you go there? What do you do there?

How often do you go there alone?

How do you get there?

38. If you are with friends, where are the worst places to go outside the neighborhood? Why?

Do you go there? What do you do there?

How often do you go there with friends?

How do you get there?

39. What other places do you go outside the neighborhood?

What do you do there?

With whom do you go?

How often do you go there?

How do you get there?

40. IF S HAS NOT MENTIONED BOSTON: Do you ever go to Boston?
Where?

What do you do?

How do you get there?

With whom do you go?

41. Do your friends travel around as much, more, or less
than you do?
IF DIFFERENT: Where do they (you) go that you (they)
don't go?

42. Who gets around the most of anyone you know your age?

43. Do girls get around as much as boys?

44. What is the best way to travel around the neighborhood
if you're alone? Why?

45. What is the best way to travel around the neighborhood
if you're with a group of friends? Why?

46. What is the best way to travel around Cambridge? Why?

47. What is the best way to travel around outside Cambridge?
Why?

48. IF S HASN'T MENTIONED BUSES OR SUBWAYS: Do you and your
friends ever use buses or subways?

Where do you go when you use them?

Do you like to use them? Why (not)?

49. What are the most dangerous places you know about and
visit? Why?

50. What kinds of things make places dangerous?

51. Are there any places you wouldn't like to go if it were night?

52. Of all the places that you've been, where are the easiest
places to get lost?

53. Do your parents let you travel around where you want in the city? Why (not)?
- Where can't you go? Why not?
54. How old were you when you started going around freely?
55. Do you ask or tell your parents each time you go? IF NO: When don't you?
56. Are there things that you do and places that you go that you don't tell your parents about because you think they might not like it? Which ones?
57. Do you think many kids go places their parents wouldn't want them to go? Where?
58. Do you ever go on school trips? Where?
- How often?
- Do you like to go on school trips?
- What kinds of places should they take you to?
59. Do you go with your parents when they go to other places in the city? Where? How often?
60. Do other adults ever take you on trips? Who? Where? How often?
61. Would you rather travel around with your parents or other adults or would you rather go with kids? Why?
62. Do kids your age care much about what the city is like? Why (not)?
63. What are the important things to improve in the city for kids your age?
64. If your school decided to teach a course on cities, what would you like to learn?
65. Do you think kids should travel around town? Why (not)?
66. Is it better to go to familiar or to unfamiliar places? IF UNFAMILIAR: What are the best kinds of unfamiliar places to go?

67. How often do you go to places that aren't familiar?
68. Are there any places you would like to visit but can't? Which ones? Why?
69. If you could go anywhere in the city you wanted to go, where would you go? Why?

How do you know about these places?

70. What other cities would you like to visit? Why?

How do you know about these places?

71. What other states or countries would you like to visit? Why?

How do you know about these places?

72. What cities and states have you visited?

73. Show north, south, east and west on your map.

74. Point out where the following places would be on your map:

- a. Boston
- b. Sommerville
- c. Roxbury
- d. Boston Harbor
- e. Brookline
- f. Charlestown
- g. Airport
- h. Franklin Park
- i. Fenway Park
- j. Charles River
- k. Harvard
- l. MIT
- m. Watertown

BIOGRAPHICAL INFORMATION

1. Name _____
2. Age (yrs. and mos.) _____
3. Grade finished _____
4. Address _____
5. How long have you lived there? _____
6. Do you live in an apartment? _____
Does it have a yard? _____
7. Where else have you lived? _____
How long? _____
8. What school do you go to? _____
How long? _____
9. What other schools have you attended? _____
10. How well do you like school? _____
11. Do you have any favorite subjects? _____ Which ones? _____
12. How would you say you do in school? _____
13. Do you like drawing and art? _____ Do you draw much? _____
14. Does your mother work? _____ How much? _____
15. Does either of your parents work on Sat. or Sun.? _____
16. What does your father do? _____
17. How many brothers and sisters do you have? B _____ Ages _____
S _____ Ages _____
18. Did your parents grow up in Cambridgeport? ___ If so, where?

19. Where do most of your other relatives live? _____
20. Where do your grandparents live? _____ Were they born there?
If no, where? _____

21. How often do you visit relatives? _____
Which ones and where? _____
22. Does your family have a car? _____
23. Do you have a bicycle? _____ If no, do you want one? _____
Why (not)? _____
24. Do you get spending money each week? _____ Where? _____
How much? _____
25. Do you have any jobs? _____ What? _____
26. Do you belong to any organizations, e.g. scouts, YMCA, camp? _____
What? _____
27. What group of three or more friends do you do things with most often? _____
28. Who are your best friends? (question if response differs from previous answer) _____
29. What do you want to do when you finish school? _____

INTERVIEW CODING OUTLINE

ENVIRONMENTAL VALUES:	cell number	
Questions 3,5,36,38	1. <u>+/-N/O</u>	best/worst places to go inside/outside neighbor- hood with friends
Q. 4,6,35, 37	2. <u>+/-N/O</u>	best/worst places to go inside the neighborhood alone
Q. 15	3. <u>+/-S</u>	best/worst streets in N
Q. 15	4. <u>+/-SP</u>	best/worst streets to play on in N
Q. 23	5. <u>FP</u>	best places to live that are familiar
Q. 24	6. <u>?P</u>	best places to live that are unfamiliar
Q. 25	7. <u>I</u>	most interesting place to live
Q. 68,69, 70,71	8. <u>VP</u>	places like to visit but can't
Q. 49,51	9. <u>D</u>	most dangerous places
Q. 53	10. <u>X</u>	places parents say kids can't go
Q. 56	11. <u>GX</u>	places kids go that parents forbid
Q. 52	12. <u>L</u>	easiest places to get lost
Q. 27	13. <u>HP</u>	historic place
PLACE USE:	14. <u>H</u>	hangout, spend much time
	<u>U</u>	use fairly often
	<u>M</u>	mention (seldom use, have used)
	<u>R</u>	reference (never use)

15. _____ frequency of use (times/
month)

16. _____ places where most time
is spent everyday

17. W walk
B bike
BU bus
S subway
C car

18. _____ social group in which
place is used

A = alone
F = friends
P = parents
O = other adults
I = institutions: school,
camp, ymca, church
G = girls
T = teens
R = cousins or siblings

19. _____ own activities (see
activity coding sheet in
Appendix II.C.)

20. _____ others' activities (except
girls) (see activity
coding sheet)

21. _____ girls' activities (see
activity coding sheet)

TRIP PLAN

23. TP _____ trip plan place

MAP

24. E _____ edge of neighborhood

25. MP _____ place shown on map

PHOTO SURVEYS:

26. _____ number of pictures taken
of place
27. +/-V _____ most/least important place
28. +/-L _____ like/dislike place
29. _____ frequency of use (times/
month)
30. _____ social group in which
place is used (see item 18)
31. _____ activities (own) (see
activity coding sheet)
32. _____ activities (others) (see
activity coding sheet)
33. +/-VG _____ most/least important place-
group
34. +/-LG _____ like/dislike place-group

3, 4, and 5. PHOTO SURVEY, INDIVIDUAL DISCUSSION, AND
GROUP DISCUSSION

PURPOSE

1. What do s's value and use in their neighborhood and city?
2. To what extent do members of friendship groups agree on valued places?

METHOD

Each subject was given an inexpensive camera (which he could keep) and two rolls of film. We found a VALIANT camera which sold for 75¢ and some film that was 25¢ per 16 exposure roll. (These can be obtained from WORKSHOP FOR LEARNING THINGS, 55 Chapel St., Newton, Mass. 02160.) Each s produced about 30 pictures. Children were asked to take pictures of places in the city that were important to them for some reason: because they went there a lot, liked or disliked the place, etc. It was felt that this basically non-verbal method would be a good supplement to the interviews and might uncover many things that could not be articulated in interviews. We thought the pictures would also help them talk about their experiences and values. It was emphasized that the pictures should be of places they valued, and not of places they thought we would like. Surveys were not completed by all s's until two months had elapsed.

Individual Photo Discussion

After each s had produced about 30 usable pictures, we discussed them with the s. Each picture was mounted on a card on which information about the picture was recorded. S's identified each picture, told us why they took it, how often they went there, what they did there, who they went there with, and who else went there and what they did. After discussing each photo and locating the place on the map, we asked s's which places they liked best and least and why. Then they were asked if there were any places they would like to have photographed but didn't. This question was important because kids may not have covered their territory.

Group Discussions

In the group discussions each group of three friends got together and took turns talking about his pictures. The group was encouraged to support or refute what the other kid was saying about his pictures. This brought out many previously unmentioned activities, places, values and placed each individual's pictures in the group context. The session was recorded. After discussion the group picked the places it liked most and least from the whole bunch and discussed them.

ANALYSIS

1. Density, variety, and territory of photographed places were computed and mapped for individuals and social groups.
2. Same as (1) except with liked and disliked places only.
3. Photographs were classified by type of place and density of photographs within each place category was tabulated for each social group.
4. S's reasons for taking photos were classified by type and frequencies within each category were calculated.
5. Information on activities and uses that was not already contained in the interview data was added to the interview analysis.

EVALUATION

1. Kids enjoyed taking pictures and cameras often served as bait for new subjects. Kids also enjoyed looking at their pictures and telling us about them, but about half the time they gave little information on frequency, users, and activities. Many s's who lacked verbal skill and interest were quite interested and capable with visual methods. It was important to have pictures identified carefully for in many instances I would not have guessed why a picture

had been taken. S's explanations should be transcribed verbatim. The pictures helped us to understand interview responses and to get a better idea of how kids used places, but usually the surveys didn't produce surprising information.

2. Some kids were lazy and didn't photograph all the places they visit and value and they shot their film in just a few places. There was a general tendency to take several pictures in one place, though number of pictures taken per place is a partial indication of the value of the place to the kid. Kids who used their bikes did better surveys (i.e. more extensive). Some kids went around with their friends who were also in the group, although we instructed them not to do this. This produced many photos of the same thing (which may have resulted anyway). A few kids also told us they discussed with their friends what they should photograph, although we told them not to do this. This may have eliminated some personal patterns, but I don't think the problem is serious.

3. There were problems with the cameras, largely due to their inexpensive construction. We soon learned that s's could not be allowed to load and unload their cameras and that the backs of the cameras had to be taped on to discourage opening and to prevent light leakage. Many ruined films resulted in the beginning and were disappointing to all of us, but when we got the control system going, things went fairly well. Sometimes we had problems with brothers

and sisters of s's fooling around with the cameras and ruining pictures, so we had to warn against this. It was often surprising what the kids brought in--the brightest kids took horrible pictures (technically) and some of the delinquents took beautiful shots. Some pictures were beautiful and a couple of kids turned out to be real artists.

4. The group discussions were interesting and group comments or arguments often gave us a fresh view of kids' activities and values. It was curious how individual choices would sometimes be killed by the other two friends. Although they could agree that many things were important, each kid seemed to have some places and experiences that were almost his own. In one case this type of conflict resulted in an unhappy session. A boy whom we thought was a friend of the other two kids--and who actually was according to them--actually turned out to be the group scapegoat. Each place that this boy talked about was mocked by his "friends"--in the middle of the session he was visibly upset. Then he made a sudden reversal in behavior and started making fun of his own pictures saying they were silly and that he really didn't like those places at all, though I knew him well enough to know that he cherished them. He had been mowed down by the others who almost seemed to resent the fact that he had gone to some places they didn't know.

TIME: Picture taking--1-2 weeks
Individual discussion--1 hour
Group discussion--2 hours

PHOTOGRAPHY INSTRUCTIONS

We would like you to take photographs of places you go to alone, places you go to with friends, and places that are important to you. Try to show the most interesting aspects of these places. Give some thought to the photographs before you take them. There will be 32 in all--16 on each roll. Plan carefully.

Procedure

Directions are in each camera box. After you have taken the photographs, bring the two rolls of film to your next meeting. These will then be developed and printed so that we can discuss them. If you need help, or if you ruin some film by mistake, call Lois Stern 868-0841 at 5:30 or 6:00 PM or try to find us at Blessed Sacrament School in the daytime.

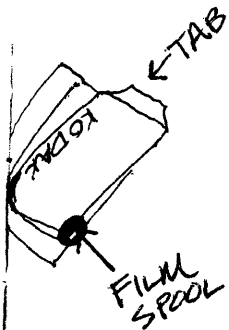
SIMPLE

DIRECTIONS

274

1. LOADING

OPEN THE LOCK ON THE BOTTOM OF THE CAMERA. THEN SLIDE DOWN THE BACK OF THE CAMERA TIL IT COMES OFF. PLACE THE SPOOL WHICH IS EMPTY IN THE RIGHT COMPARTMENT TO DO THIS, FREE THE SPOOL BY PULLING DOWN ON THE LATCH AT THE BOTTOM OF THE SPOOL. PUSHING UP ON THE LATCH HOLDS THE SPOOL IN PLACE. OPEN THE PACKAGE OF FILM. REMOVE WHITE TAPE. DO NOT UNWIND EXCEPT A LITTLE BIT TO LOAD CAMERA. PLACE FILM SPOOL ~~ON~~ IN LEFT COMPARTMENT. PUT THE TAB IN SLOT ON RIGHT HAND SPOOL. WIND NOB ON TOP A BIT TO MAKE SURE FILM IS WINDING. SLIDE BACK ON SECURELY. LOCK BACK. TURN. WIND NOB ON TOP SLOWLY. YOU WILL SEE THE 1 SHOULD BE UPSIDE DOWN. YOU ARE READY TO TAKE YOUR FIRST PICTURE.



- ## 2. TAKING PICTURES. ★
1. REMOVE LENS CAP
 2. SET DISTANCE, DAYLIGHT, SCALES. KEEP CAMERA ON I.
 - ★ 3. SNAP. THEN WIND TO NEXT NUMBER.

3. UNLOADING

AFTER TAKING 16TH PICTURE. KEEP TURNING NOB TIL FILM ENDS AND YOU CAN'T SEE IT THROUGH RED WINDOW. UNLOCK BOTTOM OF CAMERA. OPEN BACK. TAKE OUT FILM. LICK SHINY PART OF WHITE TAB AND STICK IT AROUND FILM.



CALL LOIS STERN 868-084
IF YOU HAVE TROUBLE

NAME _____ DATE _____ ID _____

INDIVIDUAL PHOTO SURVEY DISCUSSION

- NOTE ON EACH PHOTO CARD:
1. What and where? (locate on map)
 2. Why did you take this picture?
(verbatim)
 3. How often do you go there?
 4. Do you go alone or with friends?
If with friends, how many?
 5. What do you do there?
 6. Do other kids hang there?
What kind of kids?

AFTER ALL PHOTO CARDS FINISHED:

1. Which of all these places that you have photographed are most important? Why?
2. Which are least important? Why?
3. Which places do you like best? (mark +) Why?
4. Are there any that you don't like? (mark -) Why?
5. Are there places that you wanted to photograph but which you couldn't? Which ones? (Decide if s should get more film).
6. NOTES:

GROUP MEMBERS _____

DATE _____ ID _____

GROUP PHOTO SURVEY DISCUSSION

These are the pictures that all of you took of important places in the neighborhood and in the city.

Today we'd like to see how much you agree with one another on the important places--the places that you visit a lot or have strong feelings about.

Let's begin by hearing what each of you has to say about your own pictures. Tell us why you took each one. Why is it important?

Could you begin _____ (s) _____ ?
(Record discussion)

For each place:

1. Do any of you disagree with the importance of the place _____ s _____ has photographed?

After all s's have finished:

2. Are there any places that you didn't get pictures of that should be in here? Which ones?
3. Are there any places here that shouldn't be? Which ones?
4. Now we'd like all of you to get together and pick out the places that are most important to all of you. (Question s's on any disagreements.)
5. Which places are least important?
6. Which places do you like best?
7. Are there any of these places that you don't like?

6. TRIP PLANNING

PURPOSE

1. What places in the Cambridge/Boston area are important to kids?
2. Do social groups differ significantly in their choices?

METHODS

We told the kids we wanted them to take us on a trip to the places that were important to them anywhere in town; we emphasized that we wanted to visit places they considered important--not us. Transportation was to be by bike or by car. We said we'd give each of them \$1.00 to spend as they pleased on the trip. Each kid was asked to make a list of the places he thought we should visit. Then we talked about each trip plan and compiled a group trip plan.

ANALYSIS

1. Type, location, territory, variety, and density of trip plan places were analyzed.
2. Results were compared for social groups and with interview results.

EVALUATION

This was a very productive method for the short amount of time it took. Kids got excited and involved with this because it seemed real. Like the group photo survey discussions, this produced interesting conflicts but many agreements. I was always fascinated by the importance of food to them and their choices of places to eat:

KEMPS KEMPS KEMPS! The places that came out of this quick trip planning session were a good summary of the places that came out of the lengthy interview, although the rich commentary was lacking. If I had to do this research quickly and was mainly interested in the names of valued places (and not so much in the reasons), I would do this instead of the interview. Although we had intended to take them on the trip they had planned, it turned out that we didn't have the time, except in one instance. I think results would have been somewhat redundant with the interviews and photo surveys.

TIME: $\frac{1}{2}$ hour.

TRIP PLANNING

PROCEDURE (tell s's something like this, but informally)

Lois and I would like you to take us on a trip. We want you to show us places that you go to or that are important to you in some way. They can be anywhere in the city.

The only limitations are that the trip be finished in two or three hours. We can walk, or if you want, we can use the bus or subway, but you can't spend more than \$1 each on the transportation. We will pay up to \$1 for transportation and \$1 to spend on other things.

So today plan the trip then next time we'll take it. Here are some maps and here are your photo surveys--you might find these useful. Now you don't have to plan the trip exactly, but you should have a good idea of where you will take us.

Remember, we just want to see the places that you think are important--the places that you think are important--the places you visit, that you hang out in, that you have strong feelings about. Pretend that Lois and I are kids the same age as you and that we are from somewhere else and want to find out what the place is like. Don't take us to places because you think we'll like them, but take us because you think they're important.

RECORD TRIP PLANNING SESSION

7. CITY TRIPS

We planned to do three types of trips with the kids:

- A. Free-choice trips of the neighborhood and city to places that kids considered important to them. (see Method 6. TRIP PLANNING)
- B. Free-choice trips in an unfamiliar part of the city. Kids were to be taken to an unfamiliar point selected by me and were then to take me on an hour trip from that point to places that attracted them.
- C. Structured city trips in which s's would be taken on a predetermined route to test problems they have in using several orientation systems in an unfamiliar environment (path markings, guide signs, pictorial maps) and to find out what aspects of city settings attract their attention and involvement, are memorable to them, and are valued by them.

Trips were planned as group trips for three friends. Kids were to take their cameras with them for (2) and (3); these trips were to be followed by brief group interviews.

The trips were not done due to lack of time and difficulties in getting three kids together except for one free-choice trip. This was done with a group that included one of our subjects and two other kids, one of whom was a teenager

and was highly productive. The group made a trip plan to show us some of the most important places in the area for fifth and sixth grade kids--and for many older and younger ones too. Most of the places were in the industrial area and included the railroad tracks and trestle. During the trip they took me to 14 of their "forts" (places for smoking, talking, and sometimes drinking) and to many dare-devil places for jumping, swinging, and climbing. They hopped a train, they explained the whole trestle area to me in detail, took me across the trestle to their hangouts at BU, "Essex" or "frog" pond, and finally to Kemps, where I learned what made this place heaven for every kid. During the trip we all took pictures and I recorded the commentary.

The greatest advantage of this method was that it showed me how they actually use places--things that don't really come out of interviews. For instance, I had not been aware of the enormous amount of climbing they do on everything that's climbable, including the guard rails on the bridge over the Mass. Pike.

The trip was a fine experience for me because I discovered a part of Cambridge that I never knew existed--a quiet place, away from people, with many beautiful and sometimes grand scenes. For kids it is a wonderful escape from the domination

of adults. It is not surprising that kids have apparently for several decades been attracted to the trestle. (I heard stories of fathers and grandfathers going down to the trestle in their youth.) After the trip I felt they had certainly discovered and claimed one of the best open spaces in Cambridge.

GROUP _____

DATE _____ TIME _____ TO _____

TRIP TO FAMILIAR PLACES (A)

PROCEDURE (see Method 6. TRIP PLANNING)

BEFORE TRIP: See if you can conduct this trip like a guided tour, since Lois and I don't know anything about the places. Tell us about all the places and things to do. Remember to take us to places because they are important to you--not because you think we'll like them.

Record comments during trip: be sure each place is identified.

Photograph places that seem important to them.

Note route choice.

Note behavior: "fooling around", looking, pointing, excitement/boredom, etc.

Note relations between kids: leaders, clowns, followers, trouble makers.

NOTE: this method was used with only one group of subjects.

GROUP _____

DATE _____ TIME _____ TO _____

UNSTRUCTURED TRIP TO UNFAMILIAR PLACES (B)PROCEDURE (tell s's something like this)

BEFORE TRIP: Today I'd like you to take me on a trip around an area that none of us knows very well. First I'll take you by subway to another place, and then you'll take over from there.

WHEN THERE: Now let's walk around here. Go anywhere that looks interesting to you. We can spend about an hour. Take pictures of anything that interests you. I'll let you make all of the decisions.
(give s's money to spend)

RECORD COMMENTS DURING TRIP: BE SURE EACH PLACE IS IDENTIFIED. PHOTOGRAPH PLACES THAT SEEM IMPORTANT OR BEHAVIOR THAT IS INTERESTING.

Note behavior.

Note relations between kids.

WHEN FINISHED: Now see if you can get us back home by subway or by bus.

AFTER TRIP: (Individually)

How would you describe that trip? Where did you go?

What were the highlights?

What did you like best about it?

Is there anything you didn't like?

NOTE: this method was not used.

STRUCTURED TRIP (C)

METHOD: Each of 20 s's will take a pedestrian trip through a relatively unfamiliar environment in central Boston and will be accompanied by the experimenter. The pedestrian trip will begin at Park Station and will end at Haymarket Station; the s will then take the subway from Haymarket Station to Central Square. The trip will take 30 to 40 minutes. The experimenter will instruct s's to use each of three different modes of orientation during three different trip segments.

1. Freedom trail: Park Station to the Post Office
2. Guide signs: Post Office to Durgin Park
3. Pictorial map: Durgin Park to Haymarket Station

Guide signs will be made and will be either presented to s's at appropriate points on the trip or they will be mounted in the environment just before each trip.

The map will be carried by s's.

S's will use subway signs to get from Haymarket Sta. to Park Sta. and from Park Sta. to Central Square.

During the trip the experimenter will note s's behavior, especially mistakes, hesitation, and indications of interest. If s's make mistakes, they will be corrected.

S's will be divided into two groups of 9 each. One group will take the trip as described above. The other group will take this same trip, but with the addition of information about some part of the environment at several points throughout the trip. Additional information will be given orally at points that we would not expect s's to attend to under normal conditions.

PROCEDURE: (tell s's something like this, but informally)

Today I'd like you to take me on a trip to Boston. Let's begin by going to the subway in Central Square.

(Go to Central Square)

Now take me to the train that goes to Boston. Here's your subway money. We want to get off at Park Station. I'll depend on you to tell me when we should get off.

(When off train)

Now let's go outside.

(When outside)

Now follow that path marked in red and see where it takes us. Do what you want, but be sure to stay on the path.

(Don't answer Q's relating to trip. When at Post Office...)

Now I want you to follow those signs to Durgin Park. There will be several of them. Look carefully at them so that you know where to go.

(When at Durgin Park)

From now on I want you to use this map so that we can get to the subway. The path you should follow is marked in red. We are here now. (Indicate)

(When at subway)

Now let's take the subway to Central Square. Follow the directions on the signs.

(After the trip)

1. How would you describe the trip you just took to one of your friends?
2. What places do you remember best? Why? Describe them.
3. Which ones did you like most? Why?
4. Which ones did you like least? Why?
5. Now I'm going to show you a bunch of pictures. Tell me if you recognize any of these places from the trip we took. Be careful because some of these were NOT on the trip. If you aren't quite sure tell me.

6. Which of these places that you recognize did you like most? Why? (if different from 3)
7. Which of these places that you recognize did you like least? Why? (if places different from 4)
8. Could you tell me what each of these places that you recognize is? What's going on here? What do people do here? Who goes here?

8. CITY KNOWLEDGE: PLACE RECALL

PURPOSE

1. How aware are kids of choices of places, activities, and people in the city?
2. How do they evaluate these choices?

Would they like to know more about any of these activities and places in the city?

METHOD

S's were asked to name all the places they could think of for fifty different forms, activity, and social categories. S's then evaluated the general types in terms of whether they would like to visit or do such things and whether they'd like to know more about other such things in the city.

ANALYSIS

1. A composite list of subject responses was compiled for each response category. Total frequency of place mentions within each category was tabulated for each social group. Number of responses within each category was calculated for each subject and for each social group. A total score was then computed for each subject and an average score for each social group.

2. Average variety of responses was calculated for each social group in each category.
3. Average territory (distance from home) of responses in each category was calculated for each subject in each social group.
4. Frequency, variety, and territory of responses were compared for each social group within broad categories of activity, form, and social character. (see Appendix IID for classification)
5. Subject evaluations of categories were compared for each social group both in single and in aggregated categories.

EVALUATION

1. This is easy to do and gives a good idea of the range of kids' city exposure. Additional questions could be added such as how much s's go to those places they name, what they do there, etc., but this would take much longer, given the fifty categories. Fifty categories are about all they could take in one sitting.
2. S's required continual prodding (e.g. "any more?", "is that all?", "can you think of any others?") to make sure they were naming all the places they could.
3. This type of data should be easy to analyze.

TIME: one hour

CITY KNOWLEDGE: PLACE RECALL

TELL ME ALL THE PLACES YOU CAN THINK OF IN THE BOSTON/CAMBRIDGE REGION WHERE YOU CAN DO OR SEE THE FOLLOWING THINGS (press subject to tell everything he remembers in each category) (items are in random sequence--see Appendix B for classification)

1. Eat foreign food
2. Take a boat ride
3. Play outdoor games like baseball, tennis, golf, etc.
4. Swim
5. Hear a concert or see a play
6. Have a picnic
7. Movies
8. Fine paintings and sculpture
9. Buy expensive things
10. Watch professional sports
11. Poor neighborhoods
12. Shop in big stores that have a lot of things
13. Dangerous places where you can get into trouble
14. Buy candy or ice cream
15. Find kids like yourself
16. Catch animals, e.g. bugs, snakes, frogs
17. Learn about science
18. Rich people
19. Colleges
20. Famous people's houses
21. Find out about Boston/Cambridge history
22. Foreign neighborhoods, e.g. Italian, Spanish, etc.

23. Mansions
24. Hippies
25. Ruins
26. Water: ponds, harbors, rivers, lakes
27. Panoramas of the city
28. Very old buildings
29. Jewish neighborhoods
30. Ships
31. Flowers and gardens
32. Areas with rocks and big trees
33. Factories
34. Railroad tracks and trains
35. Black neighborhoods
36. Big parks
37. Libraries
38. Beautiful buildings and streets
39. Construction sites
40. Nice neighborhoods
41. Auto showrooms
42. Highways
43. Good bike roads
44. Slums
45. Modern buildings
46. Exciting places
47. Junk yards, dumps
48. Fields with long weeds, vacant lots

49. Old places
50. Housing projects
51. Big bridges
52. Nice churches

53. Which of these places would you like to visit? (Show subject this list)
54. Are there any that you wouldn't want to visit?
55. Which of these places would you like to know more about, that is, find out where more such places are located?

9. FAMILIARITY WITH THE CAMBRIDGE/BOSTON SCENE

PURPOSE

1. Do kids know about places that I expect would be important to them or to adults?
2. Are places which have both memorable form and activity better recognized than places with predominantly form or activity dominance?

How does recognition of local places compare with that of places in the larger city?

3. How do s's evaluate the places?
4. What experience do s's have with places they recognize?

METHOD

Color photos of 135 places were randomly selected from a list of about 300 places in the Boston/Cambridge area that were hypothesized to be important to adults and/or kids. Places were classified into groups according to general activity and form character:

- a. Places that were likely to be remembered mainly for their appearance, that is, form character.
- b. Places that were likely to be remembered primarily because of what one does there, that is, their activity.

- c. Places that were likely to be remembered both for their activity and form character.

These groups were further subdivided into (a) local places and (b) non-local places. The test sample concentrated on the Cambridgeport area and on Central Boston. To inhibit guessing, 15 places were added to the collection that were from other cities and that kids would not be likely to recognize (s's knew these were present). Kids were shown groups of 15 pictures at a time. Each s saw the groups in the same order. If they recognized them they were then questioned on what the place was, what they did there, how often they went there, with whom, and by what mode. After s's had gone through all photos, they were asked to select the places from the whole bunch that they liked most and least and to explain why.

ANALYSIS

1. Recognition scores were calculated for individuals and for each social group.
2. Recognition scores of each social group were compared for the three place-type categories (form dominance, activity dominance, and form and activity dominance) and for two location categories (local, city).

3. Frequencies of likes and dislikes were tabulated for each place and for each activity/form category for each social group. Percentages of liked and disliked places that were recognized places and percentages of recognized places that were liked and disliked within each category were also computed.

4. Most-recognized, most-liked, and most-disliked settings were analyzed individually in relation to s's descriptive and evaluative comments.

5. Setting evaluations were compared for the activity/form categories and also for a more detailed place classification (e.g. parks, monuments, wastelands, etc.--see Appendix II.A.)

EVALUATION

1. Kids like to look at and talk about pictures of the city, especially when they are familiar places. However, they disliked answering questions about places particularly because questions were so repetitive and there were so many places. I doubt the accuracy of their frequency answers-- I don't think they know much more than "a few times a week", "a few times a month", etc., but they usually gave specific answers like 3 times a week, 4 times a year. I think it is easy for them to tell when they've seen a place or not and I believe their answers are reliable (except for one

subject who claimed not to recognize places we know he had visited). It is very important that the pictures be taken to show a common view in good light and in color. Some kids were very clever in using cues in photos that identify a place even if they haven't been there--we had to watch for that.

2. The method brought out experiences that hadn't come out of either the interview or photo surveys. We found that kids actually had wider experience in some instances than the interviews would have indicated.

3. The method was tedious for both subject and interviewer because of the repetitive questions. In retrospect, the most valuable results were not so much the recognition data, but rather what s's said about the places. If I were to repeat the research, I would use the pictures primarily as stimulus for free discussion. Responses should be recorded verbatim, however. (We simplified subject responses but lost valuable overtones.) I would also try this with groups of two or three kids. This would reduce the monotony for everyone. I tried this once with some kids who weren't regular s's. They had fun talking about places, arguing about whether it was a good place and how often they went there, etc. The great advantage of having a group here would be, I think, that a great many "why" type answers would come out of their natural comments without the researcher's constant prodding.

TIME: two hours

INSTRUCTIONS: Look at these pictures and pick out the places that you recognize. Be careful because some of the pictures are from other cities. (have s answer Q's)

PLACE	KNOW	WHAT AND WHERE (note only if wrong)	HOW OFTEN	WHAT DO YOU DO THERE	WHO DO YOU GO WITH	LIKE/ DISLIKE	REASON FOR L/D
A. 11. Harvard foot bridge	+					+	
16. River St. Bridge	+					+	
20. River St. cycle shop	+					+	
30. MTA Sta./Cent. Sq.	+					+	
32. Mass. Ave. toward MIT	+					+	
45. Mr. Softee/Brookline street nr. Tudor	+					+	
50. Trash park/Brook. St.	+					+	
55. Shell Sta. & S&S on Mem. Dr.	+					+	
64. storage yard/ RR & Albany st.	+					+	
75. Lechmere	+					+	
87. Boylston St./Bos.	+					+	
98. King's chapel	+					+	
110. Haymarket	+					+	
121. Bunker Hill	+					+	
139. Times Square (NYC)	+					+	
B. 1. Harvard gate	+					+	
3. Harvard Square	+					+	
7. Longfellow House	+					+	
39. Simone's/Brookl. & Green	+					+	
60. B.U. view nr. B.U.	+					+	

	PLACES ONLY IF WEIGHT OF PLAN THERE IS	WATER	BY AIR	BY RAIL
B. 81. Northeastern U.	+	-	-	+
86. Trinity Ch.	+	-	-	+
94. Beacon St.	+	-	-	+
97. Old Granary Cem.	+	-	-	+
102. Filene's corner	+	-	-	+
109. Haymarket	+	-	-	+
115. North End	+	-	-	+
125. Logan Airport	+	-	-	+
139. Dover Sta./So.End	+	-	-	+
145. (St. Pat's/NYC)	+	-	-	+
<hr/>				
e. 4. Harvard Sq.	+	-	-	+
26. PO/Cent. Sq.	+	-	-	+
31. Woolworth's/C.Sq.	+	-	-	+
48. Shoe shop/ Pearl & allston St.	+	-	-	+
59. B.U. dorms from Magazine beach	+	-	-	+
65. RR tracks nr. MIT	+	-	-	+
78. B.U.	+	-	-	+
79. Fenway ball park	+	-	-	+
93. Louisberg Sq.	+	-	-	+
103. Old Corner Book Store	+	-	-	+
104. Old State House	+	-	-	+
107. JFK building	+	-	-	+
127. Pleasure Rav/	+	-	-	+

	(Does only if wrong)	OFTEN	HERE	WITH	DISLIKE
C. 141. (Detroit)	+	-			+ -
147. (Chicago)	+	-			+ -
D. 6. Brattle Street	+	-			+ -
12. Peabody Terrace	+	-			+ -
14. Treeland/Mem. Dr. nr. western Ave.	+	-			+ -
19. Junk yard on River St.	+	-			+ -
44. view of Pru. down Tudor?	+	-			+ -
51. cute store on Brookl. nr. Putnam	+	-			+ -
66. MIT	+	-			+ -
85. Pub.Lib. Bos.	+	-			+ -
89. Public Garden	+	-			+ -
90. Trailways/ Pk.Sq.	+	-			+ -
91. Frog Pond/Common	+	-			+ -
99. Chinatown/Boston	+	-			+ -
136. Fens/Boston	+	-			+ -
137. (Chicago)	+	-			+ -
143. (Mus. Nat.HIST) (NYC)	+	-			+ -
E. 17. Laundermat/ Western Ave.	+	-			+ -
21. River St. shop	+	-			+ -
27. Brigham's/c. sq.	+	-			+ -
41. factory/Franklin	+	-			+ -
46. Pearl St. bldg.	+	-			+ -

DISLIKE

WITH

THEIR

GROUPS ONLY IT FEELS OF THEM

+

-

- 49. Printing shop on Pearl nr. Putnam
- 57. Mem. Dr. nr. B.U. Bridge
- 62. view up Albany st.
- 67. MIT
- 69. Longfellow Br.

+
+
+
+
+

-
-
-
-
-

- 80. Mus. of Fine Arts
- 82. Symphony Hall
- 88. Commonwealth Ave.
- 92. Hatch Shell
- 133. Charles view

+
+
+
+
+

-
-
-
-
-

- 10. Harvard/Dunster
- 18. Hoyt Field
- 24. YMCA/ C. Sq.
- 28. Baptist Ch./C. Sq.
- 36. Volvo/Mass. Ave.

+
+
+
+
+

-
-
-
-
-

- 43. Engine shop/ Brookline St.
- 54. suburban house/ Henry St.
- 56. overpass/mem.dr.
- 63. RR tracks nr. Albany St.
- 112. museum of Science

+
+
+
+
+

-
-
-
-
-

- 113. Causeway St/N.Sta.
- 123. Suffolk Downs

+
+

-
-

E.

F.

	THOSE ONLY IF WE CAN GET THEM	THERE	WITH	DISLIKE
F. 146. (Detroit)	+	-		+
148. (NYC)	+	-		+
G. 2. Harvard Yard	+	-		+
5. old cem. nr. Harvard	+	-		+
22. River St.	+	-		+
38. Pearl St. gas Sta	+	-		+
47. machinery/ Brookl. nr. Speridakis Test	+	-		+
52. Deli/Brookl. & Putnam	+	-		+
58. Mag. Beach pool	+	-		+
74. Lechmere Sta.	+	-		+
96. State House and Park St.	+	-		+
76. B.U.	+	-		+
95. Tremont St.	+	-		+
100. Washington St.	+	-		+
120. So. Sta.	+	-		+
142. (Detroit)	+	-		+
150. (NYC)	+	-		+
H. 8. subway yard/ Harvard	+	-		+
15. Western Ave Br.	+	-		+
23. Western Ave. toward C. Sq.	+	-		+
34. Mass. Ave. shop	+	-		+
35. Mass. Ave. Fire Sta.	+	-		+

	(note only if wrong)	OFTEN	THERE	WITH	DISLIKE
H. 37. Necco	+	-			+
61. Fort Washington	+	-			+
68. Tech Sq.	+	-			+
70. Porter Sq.	+	-			+
77. B.U. Marsh Chapel	+	-			+
101. Washington St.	+	-			+
114. Boston Garden	+	-			+
116. Paul Revere House	+	-			+
126. So. Bos./U.S. army base channel	+	-			+
144. (Smithsonian)	+	-			+
J. 9. Harvard Stadium	+	-			+
13. Mem. Dr. conc. boat	+	-			+
25. City Hall/C. Sq.	+	-			+
33. Mass. Ave./ Santoros	+	-			+
40. view down Franklin	+	-			+
53. Pearl and Putnam	+	-			+
71. Sears	+	-			+
84. Prudential	+	-			+
106. Boston city hall	+	-			+
111. Mass. General Hosp	+	-			+
118. North End view	+	-			+
119. Boston Harbor	+	-			+

	CRUISE ONLY IF WRONG OR TEN	HERE					
J. 131. Harbor view	+	-					+ -
138. (Detroit)	+	-					+ -
140. (Chicago)	+	-					+ -
K. 29. Central Sq.	+	-					+ -
42. Sidney St./simplex	+	-					+ -
72. Inman Sq.	+	-					+ -
73. Lechmere/courthouse	+	-					+ -
83. Christian Science Mother Ch.	+	-					+ -
105. Teapot/city hall	+	-					+ -
108. Faneuil Hall	+	-					+ -
117. Paul Revere Mall	+	-					+ -
122. U.S.F. Constitution Charlestown	+	-					+ -
124. Revere Beach	+	-					+ -
128. Castle Sq.	+	-					+ -
130. Boston view	+	-					+ -
134. MIT view across Charles	+	-					+ -
135. (Detroit)	+	-					+ -
149. (Yale)	+	-					+ -

NOTES:

INSTRUCTIONS: Look at these pictures and pick out the places that you recognize. Be careful because some of the pictures are from other cities. (have s answer Q's)

PLACE	KNOW	WHAT AND WHERE (note only if wrong)	HOW OFTEN	WHAT DO YOU DO THERE	WHOM DO YOU GO WITH	LIKE/ DISLIKE	REASON FOR L/D
A. 11. Harvard foot bridge	+					+	-
16. River St. Bridge	+					+	-
20. River St. cycle shop	+					+	-
30. MTA Sta./Cent. Sq.	+					+	-
32. Mass. Ave. toward MIT	+					+	-
45. Mr. Softee/Brookline street nr. Tudow	+					+	-
50. Trash park/Brook.St	+					+	-
55. Shell Sta. & S&S on Mem. Dr.	+					+	-
64. storage yard/ RR & Albany st.	+					+	-
75. Lechmere	+					+	-
87. Boylston St./Bos.	+					+	-
98. King's chapel	+					+	-
110. Haymarket	+					+	-
121. Bunker Hill	+					+	-
139. Times Square(NYC)	+					+	-
B. 1. Harvard gate	+					+	-
3. Harvard Square	+					+	-
7. Longfellow House	+					+	-
39. Simeone's/Brookl. & Green	+					+	-
60. B.U. view nr. B.U.	+					+	-

C.	141. (Detroit)	+	-					+	-
	147. (Chicago)	+	-					+	-
D.	6. Brattle Street	+	-					+	-
	12. Peabody Terrace	+	-					+	-
	14. Treiland/Mem. Dr. nr. western Ave.	+	-					+	-
	19. Junk yard on River St.	+	-					+	-
	44. view of Pru. down Tudor?	+	-					+	-
	51. cute store on Brookl. nr. Putnam	+	-					+	-
	66. MIT	+	-					+	-
	85. Pub. Lib. Bos.	+	-					+	-
	89. Public Garden	+	-					+	-
	90. Trailways/ pk. Sq.	+	-					+	-
	91. Frog Pond/Common	+	-					+	-
	99. Chinatown/Boston	+	-					+	-
	136. FENS/BOSTON	+	-					+	-
	137. (Chicago)	+	-					+	-
	143. (Mus. Nat. HIST) (NYC)	+	-					+	-
E.	17. Laundemat/ Western Ave.	+	-					+	-
	21. River St. shop	+	-					+	-
	27. Brigham's/c. sq.	+	-					+	-
	41. factory/Franklin	+	-					+	-
	46. Pearl St. bldg.	+	-					+	-

	WHERE	WHEN	HOW	BY	OTHER	DIS. IVE		
E.	49. Printing shop on Pearl nr. Putnam	+	-			+	-	
	57. Mem. Dr. nr. B.U. Bridge	+	-			+	-	
	62. view up Albany st.	+	-			+	-	
	67. MIT	+	-			+	-	
	69. Longfellow Br.	+	-			+	-	
	80. Mus. of Fine Arts	+	-			+	-	
	82. Symphony Hall	+	-			+	-	
	88. Commonwealth Ave.	+	-			+	-	
	92. Hatch Shell	+	-			+	-	
	133. Charles view	+	-			+	-	
	F.	10. Harvard/Dunster	+	-			+	-
		18. Hoyt Field	+	-			+	-
		24. YMCA/ C. Sq.	+	-			+	-
28. Baptist Ch./C. Sq.		+	-			+	-	
36. Volvo/Mass. Ave.		+	-			+	-	
43. Engine shop/ Brookline St.		+	-			+	-	
54. suburban house/ Henry St.		+	-			+	-	
56. overpass/mem.dr.		+	-			+	-	
63. RR tracks nr. Albany St.		+	-			+	-	
112. museum of Science		+	-			+	-	
113. Causeway St/N.Sta.		+	-			+	-	
123. Suffolk Downs		+	-			+	-	
132. Boston view		+	-			+	-	

	THREE ONLY IS SUFFICIENT	WITH	DEVELOP
F. 146. (Detroit)	-	+	-
148. (NYC)	-	+	-
G. 2. Harvard Yard	-	+	-
5. old cem. nr. Harvard	-	+	-
22. River St.	-	+	-
38. Pearl St. gas Sta	-	+	-
47. machinery/ Brookl. nr. Speridakis Te.	-	+	-
52. Deli/Brookl. & Putnam	-	+	-
58. Mag. Beach pool	-	+	-
74. Lechmere Sta.	-	+	-
96. State House and Park St.	-	+	-
76. B.U.	-	+	-
95. Tremont St.	-	+	-
100. Washington St.	-	+	-
120. So. Sta.	-	+	-
142. (Detroit)	-	+	-
150. (NYC)	-	+	-
H. 8. subway yard/ Harvard	-	+	-
15. Western Ave. Br.	-	+	-
23. Western Ave. toward C. Sq.	-	+	-
34. Mass. Ave. shop	-	+	-
35. Mass. Ave. Fire Sta.	-	+	-

	NOTE ONLY IF VISIBLE	THERE	VIA	DISCOUNT
H. 37. Necco	+	-		+
61. Fort Washington	+	-		+
68. Tech Sq.	+	-		+
70. Porter Sq.	+	-		+
77. B.U. Marsh Chapel	+	-		+
101. Washington St.	+	-		+
114. Boston Garden	+	-		+
116. Paul Revere House	+	-		+
126. So. Bos./U.S. army base channel	+	-		+
144. (Smithsonian)	+	-		+
J. 9. Harvard Stadium	+	-		+
13. Mem. Dr. conc. boat	+	-		+
25. City Hall/C. Sq.	+	-		+
33. Mass. Ave./ Santoros	+	-		+
40. view down Franklin	+	-		+
53. Pearl and Putnam	+	-		+
71. Sears	+	-		+
84. Prudential	+	-		+
106. Boston city hall	+	-		+
111. Mass. General Hosp	+	-		+
118. North End view	+	-		+
119. Boston Harbor	+	-		+

10. MAP COMPREHENSION

PURPOSE

1. What kinds of difficulties do kids have in using maps?
 - a. finding familiar and unfamiliar destinations
 - b. planning efficient routes
 - c. relating map representations to the three-dimensional city

2. What are the effects of map graphics on comprehension: diagrammatic, semi-pictorial, pictorial.

3. Do map using skills correlate with map drawing skills or with extent of kids' independent travel in the city?

METHOD

Kids were first shown a map of Cambridge and were asked to locate their house and a few other familiar places and to identify directions. They were then shown photos of some places and a larger collection of maps, some of which were maps of the places in the photographs. Some maps were pictorial and others were diagrammatic. S's were asked to match the places with the correct maps and to tell how they determined which went together. The reverse of this situation was also presented in which s was shown maps and asked to match them with places. The purpose was to find out how well they could infer the

map from the place, and from the place, the map--a basic skill in map using. Then s's were given a few photos of places and were asked to draw maps showing the way the places would look on a map. Finally, s's were asked to find several destinations and to plan several trips on three different kinds of maps of Central Boston: diagrammatic, semi-pictorial, total pictorial. We wanted to find out how well they could locate destinations, plan efficient trips, and to find out what effects map graphics had on map usage. Destination finding and trip planning were repeated with the standard MBTA map.

ANALYSIS

1. Each item was scored and a total score was calculated for each subject. Average scores were then computed for each social group.
2. Performance was evaluated on destination finding, route planning, map drawing, and matching of maps with street scenes. Scores on the three different types of maps were also compared.
3. Map comprehension scores were compared with ratings on s's neighborhood maps and with their independent city travel scores.

EVALUATION

1. This was somewhat interesting to them. Kids liked to look at the maps and pictures and to look for things in them. The tasks required very little verbalization, which probably made it more acceptable to them.

2. Only a few kids had reading problems that handicapped them in using the directory to find destinations. None of the effects predicted by Carr and Cousins on the basis of their work with teenagers (i.e. embarrassment and total rejection of the task) were evident with this bunch of kids. Kids showed wide variations in skill and style of map using, but nearly all did better than I expected and two were brilliant--better than most adults I tried it on, some of whom were MIT students! Most kids had rarely used maps, except in geography class.

TIME: one hour

BLANK PG.

NAME _____ DATE _____ INT. _____ ID. _____

MAPS

A. CAMBRIDGE MAP

This is a map of Cambridge. Could you find a few places on it for me: (note difficulties--slow, disoriented, mistakes, etc.)

- + - 1. Your house.
Address _____
- + - 2. Blessed Sacrament School
- + - 3. Brookline Street
- + - 4. Turn the map in the right direction so that it goes the same way the streets go outside.

B. MATCHING MAPS WITH PICTURES

Look at these four places. See if you can find the map that goes with each of these pictures. There is only one map for each picture.

	<u>picture</u>	<u>answer</u>	<u>reason match is good</u>	(note difficulties and speed)
+ -	5. A	4		
+ -	6. B	3		
+ -	7. C	2		
+ -	8. D	8		

C. MATCHING PICTURES WITH MAPS

Now look at these four maps. See if you can find the place that goes with each of these maps. There is only one place for each map.

	<u>map</u>	<u>answer</u>	<u>reason match is good</u>	(note difficulties and speed)
+ -	9. A	3		
+ -	10. B	6		

- + -11. C 8
- + -12. C 2

D. DRAWING MAPS FROM PICTURES

Now I'd like you to draw some maps of these four places. Make maps like these maps you've been using. Show the way the streets and buildings lay on the ground; show the way the place would look if you were looking down on it from high in the air.

picture note difficulties: ask about location of elements
in each picture

- + -13. 1
- + -14. 2
- + -15. 3
- + -16. 4

E. TRIP PLANNING AND MAP USAGE

(don't let s look at more than one map at a time)

Now I would like you to find some places on these maps. Use this directory to find where the places are on the map. All of the places are listed in alphabetical order. The letters and numbers after each place tell you where to find the place on the map, for instance the public garden is F-1, so you find F and 1 on the map and then follow the lines. The place should be near where they cross. Now you try it.

- + -17. Map 1 notes
MASS. GENERAL HOSPITAL
- + -18. Now show me what would the best--fastest way to get from here, the State House, to the Hospital.

(describe route--note probs: speed, difficulties in map reading, mistakes)
- + -19. Map 2
OLD NORTH CHURCH
- + -20. NORTH STATION TO OLD NORTH

- + -21. Map 3
FANEUIL HALL
- + -22. PARK STATION TO FANEUIL

- + -23. Map 1
CHARLES STREET MEETING HOUSE
- + -24. PARK STREET CHURCH TO CHARLES STREET MEETING HOUSE

- + -25. Map 2
MUSIC HALL
- + -26. ARLINGTON STATION TO MUSIC HALL

- + -27. Map 3
POST OFFICE
- + -28. PARK STATION TO POST OFFICE

Now instead of using the directory, I would like you to just scan the map to see if you can find these places.

- + -29. Map 1
SOUTH STATION
- + -30. OLD SOUTH MEETING HOUSE TO SOUTH STATION

- + -31. Map 2
STATE STREET BANK
- + -32. STATE HOUSE TO STATE STREET BANK

- + -33. Map 3
CHINATOWN
- + -34. PARK STATION TO CHINATOWN

- + -35. Which of these maps do you like best?
Why?
- + -36. Least?
Why?
- + -37. Which one is easiest to use?
Why?
- + -38. Most difficult?
Why?

F. SUBWAY MAP

39. Have you ever used this subway map before?

These colored lines show where different trains go and these black lines are bus routes. The words here are the names of the subway stations and the numbers are the numbers of buses.

You can find the names of places here on the back and they're alphabetical. These letters and numbers tell you how to find the places on the other side of the map.

Now let's try planning a subway trip. We want to go to _____ . Find it in the directory.

- + -40. DOWNTOWN BOSTON (no directory needed here) notes
- + -41. Now tell me how you'd get there from Central Square by subway. (note problems in all cases)
- + -42. REVERE BEACH
- + -43. (route) (from Central Square in all cases)
- + -44. FENWAY PARK
- + -45. (route)
- + -46. MUSEUM OF SCIENCE
- + -47. (route)

GENERAL NOTES:

11. VINELAND "SOCIAL MATURITY" SCALE

PURPOSE

1. How do kids compare in the degree to which they act independently in activities other than city travel?
2. Are kids who travel around the city (without adults) also more independent, self-reliant in other ways?

METHOD

This scale is not as frightening as it may sound. It is simply a list of 117 activities like "is responsible for younger children when parents are out", "buys own clothing", "makes useful things", etc. These are arranged progressively to cover infancy to eighteen years: the greater the number of positive responses, the higher is a s's independence score. "Social Maturity" is a misnomer in my estimation. F. A. Doll, who developed the scale, says that it measures "the extent to which the person progressively dominates his environment, demands, or justifies his own freedom of action as age increases." In other words, it attempts to measure one's ability to take care of himself. The scale has been developed over a period of 30 years and has been widely used in assessing certain aspects in the social development of children.

ANALYSIS

1. Scores were tallied for each subject--a simple matter.
2. Scores were correlated with each s's travel score.

EVALUATION

The scale is easy to administer; results usually supported what I had already guessed about the s. It produced no great discoveries but merely confirmed in a fairly objective way what I felt about kid's experience.

TIME: ten minutes

12. CITY DIARIES

PURPOSE

1. What do children do and where do they go on a typical summer day?
2. What is the scheduling of these activities?
3. How do they get where they go?
4. With whom do they do things?

METHOD

Children were given diary sheets on which they were asked to write brief information about their city activities. After each diary day they brought the sheets to us and we interviewed them briefly on some of the highlights and details of their diary day. Each s received 25¢ per diary sheet. Days throughout the summer were sampled so that we could get a good picture of kids' activities over a period of time. Each s was to do five days, 4/5 of which were to be weekdays.

ANALYSIS

1. Density and variety of place and activity mentions were analyzed.
2. Average amounts of time spent in each activity were calculated.
3. Frequency of various travel modes and social groups were determined.

EVALUATION

1. These were valuable because they gave us a real sense of having followed the kid around although they didn't produce much information. The method did not work at all for lower class kids and for some middle class kids. Some kids just didn't remember, didn't care, or thought it was girl-stuff.
2. A few kids didn't write down some things because they were afraid their parents would look at them. When we discovered this problem, we encouraged kids to remember any things they might have left out, including things that their parents might not like--this often uncovered interesting information.
3. A better method, especially for lower class kids, would have been to ask s's about the previous day's activities, thus

relieving them of the job of recording activities. No doubt many things would be forgotten or overlooked but it would probably be satisfactory for this kind of information.

CITY DIARY

Read carefully:

INSTRUCTIONS

In the spaces opposite the hours, please tell us as accurately as possible what you did on the diary day. Answer all of the questions at the top of the sheet for each activity you did--even if the activity didn't seem important to you. Your answers may be very short--1 or 2 words, or longer if you like. You will receive 25¢ for each completed diary sheet. Thank you.

NAME _____ DATE _____

		WHERE DID YOU GO?	WITH WHOM?	WHAT DID YOU DO?	HOW DID YOU GET THERE
	7 AM				
	8				
	9				
MORNING	10				
	11				
	12				
	1 PM				
AFTERNOON	2				
	3				
	4				
	5				
EVENING	6				
	7				
	8				
	9				
	10				

13. TEEN INFORMANTS

Quite late in the summer I discovered the unique value of engaging teenagers from the area as informants and interpreters of younger kids' behavior. These teens were familiar with the s's and a few years earlier had done most of the things our s's were now doing. They knew kids' hangouts, who went around with whom, and what kids liked to do. They were more articulate than our s's, partly because they were older, but I think mainly because they were talking about something that was history for them--something they no longer had secrets about.

If I were to repeat this type of research I would use teens from the beginning to aid in getting subjects and in setting up some of the research. I'd thought of using them as research assistants, but decided that teens are so feared and so respected by the pre-teens that there would be trouble. I think the idea of using informants who are one stage beyond that of the group is a good general technique for this type of research because it releases one from any loyalties or fears that may be connected with being a member of a group and it also makes available more experience.

14. PARENT INTERVIEW

PURPOSE

1. What are parents' views toward children's use of the city?
2. What places do they want their kids to stay away from?
3. How would they improve the city and neighborhood for kids?

ANALYSIS

1. Responses to each question (or group of questions) were analyzed separately for all subjects.
2. The frequency and range of ideas were noted and comparisons were made for each social class.

EVALUATION

1. This interview provided a good opportunity to get into the kids' homes and to get a glimpse of what their home life was like. This exposure often explained curious things we had noticed about kids' ideas or behavior. Most mothers were interested in the project and were happy to talk to us. Lois was already acquainted with most of the mothers since she had usually gone to kids' homes to pick them up for the first session and she often spoke with mothers on the phone when arranging appointments for the kids. There

were only two refusals. Both of these cases would have provided excellent material I think--one family has produced some of the worst delinquents in the area and had several sons in reform school--the other was one of the poorest white families in the area. Both of these were contacted in person, since we felt certain they would say no over the phone, but our strategy was unsuccessful.

2. We had to be careful so kids didn't think we were going to tell their parents about their activities. Parent interviews were one of the last things we did and a few kids were worried that we were going to tell all we had learned about them. We were able to win their confidence, however. Many parents had no idea of where their kids went and all the mischief they got into and would have been horrified if they knew all we knew. Parents usually treated their kids as being less competent than I would have. Several families had problems. In many cases I thought the kids were more aware and capable than their parents and the family might have been better off if the kids had more to say about the way things were run.

3. If our schedule had permitted, more time should have been spent with the parents, perhaps on several different occasions rather than one visit. Although the information that came out of the interview was useful, it was somewhat superficial.

TIME: one half hour

PARENT INTERVIEW

We're interested in parents' opinions on what children do and where they go in their neighborhoods and in the city. We would like to talk about where you think children should be permitted to go and about how parents make these decisions.

1. Where does 's go in the neighborhood? Where does he hang out? Does he go with other kids? How many?
2. Does go outside the neighborhood? Where? With whom?
3. Does he ask you if he can go to places inside the neighborhood each time he goes? IF ONLY SOMETIMES: Which ones?
4. Does he ask you if he can go to places outside the neighborhood each time he goes? IF ONLY SOMETIMES: Which ones?
5. Are there places in the neighborhood that kids shouldn't go? Which ones? Why? Does go there?
6. Do you tell to stay away from any places in the neighborhood? Which ones? Why?
7. Are there places outside the neighborhood that kids shouldn't go to? Which ones? Why? Does go there?
8. Do you tell to stay away from any places outside the neighborhood? Which ones? Why?
9. How old are kids when they begin to go around the neighborhood freely?
What age for girls?
Does travel around much in this neighborhood?
10. How old are kids when they begin to go places freely outside the neighborhood?
What age for girls?
Does travel freely outside the neighborhood?

IF NO: When will he be old enough? IF YES: When did he start?
11. If went into the city do you think he would have any kinds of problems?
Do you think he would be able to use buses and subways?
Could he use the maps and follow directions?
12. IF APPLICABLE: Do you give any special instructions when he goes to far away places?

13. If children did go someplace in the city like to the stores, movies, or to a game, would you worry about them? What about?
14. When you go to Cambridge, to Boston or other places, does _____ go with you? Where? How often? How do you usually travel?
Does _____ like these trips? (try to get a sense of child/adult trips in city)
15. Are there any places that kids should know about and visit in the city?
Which ones? Why?
16. What are the best things about this neighborhood for bringing up children?
Do children make good use of these?
How could neighborhoods be improved for children?
17. IF APPLICABLE: Is Cambridge a good place for bringing up children? Why (not)?
18. What would be an ideal place for bringing up children?
Why?
19. How would you feel about your child going around the city if it were encouraged by the city and school?
For example, how would you feel about free transportation for children, lessons for them on how to get around the city and take care of himself, or special signs and trails for children to follow?

APPENDIX II

A. PLACE TYPE CLASSIFICATION

Note: General categories are ranked by number of places within the category.

	Total Number of Places
1. OPEN SPACE.	101
A. Parks	49
i. Natural parks	14
ii. Sports fields	12
iii. Amusement parks	11
iv. Playgrounds	7
v. Cemeteries	5
B. Water Areas	34
i. Lakes, rivers ocean	29
ii. Pools	5
C. Wastelands	18
2. TRANSPORTATION.	96
A. Streets	65
B. Subways and railroads	13
C. Highways	10
D. Bridges	4
E. Bicycle paths	3
F. Airport	1
3. COMMERCE.	85
A. Eating places	25
B. Miscellaneous commercial	19
C. Corner stores	12
D. Department stores	11
E. Auto sales and gas stations	7
F. Shopping centers	7
G. Banks	4
4. PLACES OUTSIDE THE CITY.	75
A. Towns near Boston	38
B. States	15
C. Other cities	12
D. Other countries	10

5. INSTITUTIONS.	63
A. Colleges	18
B. Schools and libraries	11
C. Churches	9
D. Government	8
E. Museums and other "cultural"	7
F. Fire and police	5
G. Medical	5
6. MONUMENTS AND BUILDINGS.	36
A. Landmarks (not historic)	26
B. Historic places	10
7. INDUSTRIAL.	34
A. Factories	29
B. Construction	5
8. RESIDENTIAL.	32
A. Houses	16
B. Apartments, hotels, motels	16
9. ENTERTAINMENT AND RECREATION.	21
(open space excluded)	
A. Indoor recreation	11
B. Spectator sports	6
C. Cinemas	4

B. COMPLETE LIST OF PLACES USED AND MENTIONED BY SUBJECTS

Note: Major place type categories are ranked by frequency of total use and mentions. "Hang out" and "use" frequencies are combined and "mention" and "reference" categories are combined.

HANGOUT = Frequently used, sense of ownership
 USE = Moderately frequently used
 MENTION = Infrequently used
 REFERENCE = Never used

Subcategories are arranged in the same way. Places within each subcategory are arranged by location (zone) and alphabetically within each zone.

Zone 1 = 0- $\frac{1}{2}$ mi. from center of Cambridgeport
 Zone 2 = $\frac{1}{2}$ - $1\frac{1}{2}$ mi. "
 Zone 3 = $1\frac{1}{2}$ -3 mi. "
 Zone 4 = 3-5 mi. "
 Zone 5 = 5-7 mi. "
 Zone 6 = Metropolitan area
 Zone 7 = Outside metropolitan area

	<u>Hangout and use</u>	<u>Mention and reference</u>	<u>Total mentions</u>
<u>1. TRANSPORTATION</u>	<u>134</u>	<u>347</u>	<u>481</u>
STREETS	85	269	354
Z1. Acorn St.			
Allston St.			
Auburn St.			
Blackstone St.			
Brookline St.			
Chalk St.			
Chestnut St.			
Corner of Fairmont/Pleasant			
Corporal McTernan St.			
Cottage St.			
Decatur St.			
Erie St/Cobblestone St.			
Fairmont St.			
Franklin St.			
Glenwood St.			
Granite St.			
Green St.			
Hamilton St.			

Henry St.
Howard St.
Kelly Road
Kinnard St.
Laurel St. (wall near corner)
Lawrence St.
Lopez St.
Magazine St.
Massachusetts Ave.
Newton St.
Pacific St.
Pearl St.
Perry St.
Peter St.
Pleasant St.
Prince St.
Putnam Ave.
River St.
Rockingham St.
Rockwell St.
Salem St.
Sidney St.
Speridakis Terrace
Tufts St.
Upton St.
Valentine St.
Watson St.
Waverly St.
Western Ave.
Whitney Ave.
Williams St.

Z2. Bow and Arrow Sts.

Boylston St.
Broadway
Columbia St.
Commonwealth Ave.
Flagg St.
Harvard St.
Inman St.
Prospect St.
Vassar St.
Windsor St.

Z3. Linnaen St.

Park St.
Tremont St.
Washington St.

SUBWAYS AND TRAINS	22	42	64
--------------------	----	----	----

- Z1. Tunnel/trestle
 - The tracks
 - Tracks by Fort Washington
- Z2. Kendall Station
 - Railroad station near Mass. Ave.
 - Railroad yard
 - Subway yard
- Z3. Charles St. Station
 - Dudley Station
 - North Station
 - Park Station
 - South Station
- Z5. Ashmont

HIGHWAYS	9	20	29
----------	---	----	----

- Z1. Memorial Drive
- Z2. MIT Parking Garage
 - Mass. Pike
- Z3. McGrath Highway
- Z4. Felsway
 - Rotary/Felsway and 93
 - Route 93
- Z7. New York Thruway

BRIDGES	9	13	22
---------	---	----	----

- Z1. Boston University Bridge/
 - Cumberland Farm Bridge
 - Bridge on Memorial Drive near Lindstrom Field
 - Pedestrian overpass
 - Western Avenue Bridge
- Z2. Bridge/Mass. Ave.
 - Walking bridge/Harvard

BICYCLE PATHS	9	2	11
Z1. Bicycle road Other bank-Charles River/Boston bike path/park/kid's playground			
Z3. Fresh Pond bicycle path			
AIRPORT	0	1	1
Z4. Logan Airport			
<u>2. OPEN SPACE</u>	<u>184</u>	<u>210</u>	<u>394</u>
A. PARKS	(96)	(97)	(193)
PLAYGROUNDS	41	39	80
Z1. Alberico Park Dana Park Fort Washington Hastings Square/Parrow Park Peter Park Trash Park			
Z2. Playland			
NATURAL PARKS	24	25	49
Z1. Fort Washington			
Z2. Cambridge Common Essex Pond/Duck Pond/the trees			
Z3. Boston Common Fresh Pond Fresh Pond Bike Path Hatch Shell Public Garden			
Z4. Arnold Arboretum Franklin Park Zoo Sheepfold Park/Medford Waverly Oaks Park			

Z5. Camp Ted/Waltham

Z7. New York State/
Lake George

OUTDOOR RECREATION	25	22	47
--------------------	----	----	----

Z1. Hoyt Field
Lindstrom Field
River/Baseball Field
Section

Z2. MIT Baseball Fields
MIT Rubber Pits
MIT Skating Rink
MIT Tennis Courts
MIT Trampoline

Z3. Gerry's Landing Field/
Browne & Nichols School
Russell Field/N. Cambridge(end of Dudley St.)

Z4. Riding Stables/Medford

Z6. Miniature Golf Course at Boston
Baby/Natick

AMUSEMENT PARKS	3	9	12
-----------------	---	---	----

Z5. Revere Beach

Z6. Marshfield Fair
Paragon Park/Nantasket
Pleasure Island/Wakefield

Z7. Canobie Lake Park
Coney Island
Disneyland
Lincoln Park
Montreal/Expo
New York World's Fair
Wehlo Park

OTHER NATURAL AREAS	3	2	5
Z3. Cambridge Cemetery Mount Auburn Cemetery			
Z7. The desert Grand Canyon Polar caves			
B. WATER AREAS	(53)	(68)	(121)
LAKES, RIVERS, OCEANS	48	52	100
Z1. Cardboard Hill Charles River Baseball Field Section of riverbank Trestle			
Z2. Essex Pond/Duck Pond/the trees Other Bank of Charles (Boston) bike path/park/kid's playground Playland/Charles River			
Z3. Fresh Pond Harbor Hatch Shell			
Z4. Castle Island City Point Mystic Lakes			
Z5. Orient Heights Revere Beach			
Z6. Lake Cochituate/Natick Nantasket Beach Ocean Paragon Park			
Z7. Canobie Lake Park Cape Cod Hampton Beach Lake Michigan Miami Beach New York State/Lake George Niagra Falls Pacific Ocean Salisbury Beach Utah/Salt Lake			

POOLS	5	16	21
Z1. Magazine Beach Pool Pool on Phil Doherty's Block			
Z2. Brighton Pool Charles Bank Pool War Memorial Pool			
C. WASTELANDS	(35)	(45)	(80)
Z1. Abandoned House Near Blessed Sacrament Church Abandoned House on Fairmont Apple Trees on Valentine St. near trestle Cardboard Hill Garage next to old house Junk lot on Erie Old house Roofs in industrial area Roofs on Perry St. Tire stacks/tire pits The tracks Tracks by Fort Washington Tree lot/Hamilton Place The tunnel/trestle			
Z2. Hill "W"/"tar pits"/Boston University			
Z3. Belmont Dump			
Z6. Quincy Quarries			
<u>3. COMMERCE</u>	<u>(87)</u>	<u>(130)</u>	<u>217</u>
SHOPPING CENTERS	39	15	54
Z1. Central Square			
Z2. Harvard Square Inman Square			

Z3. Downtown Boston
 Cleveland Circle
 Porter Square
 Union Square

EATING PLACES 12 32 44

Z1. Brigham's
 Brookline Bar
 Charlie's Seafood
 Charlie's Tap
 Coffee Time
 Crossed Swords
 Dunkin Donuts
 Erie Lunch
 Freddy's
 Green Village
 Hamburger House/Central Square
 Hayes-Bickford/Central Square
 Hi-Fi Pizza
 Mayflower Spa
 The Original Cafe/Main St.
 Pearl Street Cafe
 Royal Pizza/Central Square
 Simeones
 The Village/Brookline St.

Z2. F and T Deli
 Kemps
 Peter Pan
 "The Tasty" Hot Dog Stand

Z4. McDonalds

Z6. McDonalds/Natick

CORNER STORES 16 26 42

Z1. Alex's Store
 Corner Store on Valentine Street
 Cumberland Farms Store
 Ed's Store/Pearl St.
 Jimmy's/Magazine St.
 Joe's Store
 Kowlow's Drugs
 Pearl Market
 Red's Store
 Sid's Store
 Sub Shop/River St.
 Zaki's Store

OTHER COMMERCIAL	7	24	31
------------------	---	----	----

- Z1. Arcade/Central Square
 - Automatic Bendix Wash
 - Bakery/Putnam
 - Barbershop
 - Cambridge Gas and Electric Company/Central Square
 - Flag Storage Building/Putnam Avenue
 - Furniture Store/Laurel St.
 - Liquor Store/Central Square
 - Radio Station/Central Square
 - Shop on River St. near Pleasant that was set on fire
 - Stop & Shop
 - Stop & Shop Parking Lot
 - Thom McAn
- Z2. Bike Shops/Harvard Square
 - Cycle shop near stadium across river
 - Hippie shops
 - Western Union/Harvard Square
- Z3. Joke Shop/Boston Haymarket

DEPARTMENT STORES	11	9	20
-------------------	----	---	----

- Z1. Almy's
 - Woolworth's
- Z2. Harvard Coop
- Z3. Filene's
 - Gilchrists
 - Jordan Marsh
 - Kennedys
 - Kresge's/Boston
 - Lechmere
 - Zayre's
- Z6. Boston Baby Store/Natick

AUTO SALES	1	14	15
------------	---	----	----

Z1. Esso station/Massachusetts Avenue
 Gas stations
 Used car lot
 Shell station
 Sunoco station/Kelly Road

Z2. Chevrolet garage/Commonwealth Avenue
 Cadillac/Oldsmobile

BANKS	1	10	11
-------	---	----	----

Z1. Cambridgeport Bank Building
 Liberty Bank/Central Square

Z2. Harvard Trust

Z3. State Street Bank

<u>4. INSTITUTIONS</u>	<u>52</u>	<u>123</u>	<u>175</u>
------------------------	-----------	------------	------------

COLLEGES	28	42	70
----------	----	----	----

Z2. Boston University
 Boston University Dormitories
 Boston University Gym
 Harvard
 Harvard Law School
 Hill "W"/Boston University/
 "Tar Pit"
 MIT Baseball Fields
 MIT/Game Room
 MIT/Gym
 Main MIT Building
 MIT rubber pits
 MIT skating rink
 MIT tennis courts
 MIT/theater
 MIT/trampoline
 MIT/TV room
 Memorial Hall
 Westgate

SCHOOLS AND LIBRARIES	11	27	38
Z1. Blessed Sacrament School Branch Library/Woodrow Wilson Court Dancing school Old Morse School Morse School Webster School			
Z2. Cambridge Latin Cambridge Library St. Mary's			
Z3. Brown and Nichols Camp School/Linnaean St.			
CHURCHES	4	19	23
Z1. Blessed Sacrament Church Blessed Sacrament Convent Blessed Sacrament Rectory Church near Central Square Churches on Magazine St. Funeral Home on Magazine St. Greek Orthodox Church Negro Church on Allston St. Pilgrim Church			
GOVERNMENT	3	15	18
Z1. Cambridge City Hall MDC Building at river Post Office/Central Square Recruiting Station/Central Square U.S. mail boxes			
Z2. Armory near Boston University NASA			
Z3. Government Center			
FIRE AND POLICE	2	11	13
Z1. Fire station/Central Square Fire station/River St. Police station			

Z2. Fire station near Harvard

Z3. Fire station/Boylston St.

MUSEUMS	2	5	7
---------	---	---	---

Z3. Aquarium
Museum of Science
Symphony Hall
Wax Museum

Z4. Arnold Arboretum
Franklin Park Zoo

Z7. Benson's Wild Animal Farm

MEDICAL	2	4	6
---------	---	---	---

Z1. Doctor's office on Magazine St.
Doctor's office on Fairmont St.
Medical Center on Mass. Ave.

Z2. Cambridge Hospital
Orthodontist on Mt. Auburn

Z3. Doctor/Commonwealth Avenue

<u>5. MONUMENTS AND BUILDINGS</u>	<u>40</u>	<u>87</u>	<u>127</u>
-----------------------------------	-----------	-----------	------------

LANDMARKS (non-historic)	27	71	98
--------------------------	----	----	----

Z1. Blessed Sacrament Church
Cambridge Gas and Electric
Company
Church near Central Square
Church on Magazine St.
Cambridge City Hall
Fenway Motor Hotel
Greek Orthodox Church on Magazine
St.
Pilgrim Church

- Z2. Boston University bell tower
 Boston University dorms
 Main MIT building
 New apartment building near Mt. Auburn
 Peabody Terrace
 Roosevelt Towers
 Tower/Somerville
 Westgate
- Z3. Bunker Hill
 Government Center
 John Hancock Building
 Prudential Building
 State Street Bank
- Z4. Tower/Medford
- Z7. Empire State Building
 Pan American/New York City
 Statue of Liberty/New York City
 United Nations/New York City

HISTORIC PLACES	13	16	29
-----------------	----	----	----

- Z1. Fort Washington
 Old house (George Washington
 visited it)
 Old powder house/river
- Z2. Tower/Somerville (near Union Square)
- Z3. Bunker Hill
 John Kennedy's home
 Longfellow House
 Paul Revere House
- Z4. Tower/Medford
- Z7. Abalene, Kansas (Eisenhower grave)

6. TOWNS, CITIES, STATES AND COUNTRIES

	<u>8</u>	<u>119</u>	<u>127</u>
TOWNS NEAR BOSTON	8	48	56

- Z1. Cambridge
 Coast, port

Z2. Brookline
 Harrington District
 Riverside/West Cambridge

Z3. Back Bay
 Brighton
 Charlestown
 North Cambridge
 North End
 Roxbury
 Somerville
 West Cambridge

Z4. Arlington
 Belmont
 Medford
 Watertown

Z5. Waltham
 Mattapan
 Dorchester

Z6. Bedford
 Billerica
 The country
 Foxboro
 Holbrook
 Ipswich
 Lexington and Concord
 Maynard
 Middleton
 Natick
 Pembroke
 Quincy
 Wellesley
 Wilmington

Z7. Fairhaven
 Fitchberg
 Fort Devons
 Sturbridge

STATES

0

37

37

Z7. California
 Colorado
 Connecticut
 Florida
 Hawaii
 Maine
 New Hampshire

New Jersey
 North Carolina
 Ohio
 Oregon
 Pennsylvania
 Rhode Island
 Texas
 Vermont

OTHER CITIES	0	18	18
--------------	---	----	----

Z7. Baltimore
 Chicago
 London
 Los Angeles
 New York City
 Philadelphia
 Plymouth
 Quebec
 San Francisco
 Seattle
 Washington, D. C.

OTHER COUNTRIES	0	16	16
-----------------	---	----	----

Z7. Africa
 Alaska
 Canada
 England
 Germany
 Ireland
 Mexico
 New Foundland/Nova Scotia
 Spain
 Wales

<u>7. INDUSTRIAL</u>	<u>25</u>	<u>70</u>	<u>95</u>
----------------------	-----------	-----------	-----------

FACTORIES	21	57	78
-----------	----	----	----

Z1. California Paints/Waverly St.
 Charles River Press
 Clem's Auto Repair/Erie St.
 Electric Power Plant
 Factory down by trestle with
 secret passages

Fanny Farmer Company
 Glass factory/Brookline St.
 Heinz Company near trestle
 Jordan Marsh Warehouse
 Myerson Tooth Company/Hamilton St.
 Nabisco Company
 Newspaper route office/Boston
 Herald Traveler
 Pipe Company on Erie
 Polaroid
 Polaroid Parking Lot
 Print shop
 RCA Victor buildings
 Riverside Press
 St. Johnsbury
 St. Johnsbury water fountain
 Simplex
 Stone and Forsythe

Z2. Coca Cola Company

Z3. Boston Sand and Gravel
 Hood Milk Company/Charlestown

Z4. Globe newspaper factory

Z6. Budweiser Company/Natick
 Quincy quarries

CONSTRUCTION	4	13	17
--------------	---	----	----

Z1. The construction on "the mountains"
 House that's being torn down/
 Green St.
 Torn-down garage
 Store being torn down near square

Z2. Tech Square construction

<u>8. RESIDENTIAL</u>	<u>31</u>	<u>55</u>	<u>86</u>
-----------------------	-----------	-----------	-----------

HOUSES	19	35	54
--------	----	----	----

Z1. Bad houses on Brookline
 Crabby woman on Acorn St.
 Dari's house
 Friends' houses
 Friends' yards
 House on Lawrence St.
 House on Perry St.
 House on Rockwell St. where
 lady was murdered

My yard/my house
 Neighbor's house
 Ol' lady Margaret
 Old women on Newton St.
 Platt's house
 Porch of lady on Watson St.
 Puerto Rican house near Alberico Park
 Scout master's house

APARTMENTS	12	20	32
------------	----	----	----

- Z1. Apartment building with court/
 Mass. Ave.
 Apartment building with stairs/
 Rockwell St.
 New apartments/Kenwood St.
 New apartment building on Mass. Ave.
 Apartment on Mass. Ave. with dogs
 Fenway Motor Hotel
 Kensington apartment building/
 Magazine and Upton St.
 Woodrow Wilson court
- Z2. Boston University dorms
 New apartment building near Mt. Auburn
 Newtowne Courts
 Peabody Terrace
 Roosevelt Towers
 Washington Elms
 Westgate
- Z4. Apartment building near Union Market
 Bank on Watertown Square

<u>9. ENTERTAINMENT & RECREATION</u>	<u>52</u>	<u>30</u>	<u>82</u>
--	-----------	-----------	-----------

INDOOR RECREATION	23	18	41
-------------------	----	----	----

- Z1. Blessed Sacrament Teen Center
 Bowl Haven
 Bowling Alley on Magazine St.
 YMCA
- Z2. Boston University gym
 MIT/game room
 MIT/gym
 MIT/theater
 MIT/tv room

Z3. Bowling alley/Boston
Penny arcade/Washington St.

SPECTATOR SPORTS	19	9	28
------------------	----	---	----

Z2. Boston University stadium/
Brave's Field
Fenway Park
Harvard Stadium

Z3. Boston Garden/sports

Z7. Detroit/stadium
Kansas City/stadium
Oakland/stadium

CINEMAS	10	3	13
---------	----	---	----

Z1. Central Cinema

Z3. Central Theater/Boston
Savoy Theater
The shows/Washington St.

C. CLASSIFICATION AND FREQUENCY OF ACTIVITY MENTIONS IN
SUBJECT INTERVIEWS

Note: General categories are ranked by frequency of subject mentions within the category (i.e. mentions that s's engage in the activity themselves). Specific activities are also ranked by frequency of mentions and beginning with most frequently mentioned). Frequency of subjects' mentions of activities other kids engage in (but not necessarily the s) are shown in parentheses.

	<u>Total mentions</u>
A. INACTIVE UNSTRUCTURED RECREATION	155 (2)
1. look at when going by	
2. look around	
3. watch them play baseball	
4. look out high windows, high places	
5. look in store windows	
6. watch firetrucks	
7. watch boats	
8. watch construction	
9. watch trains	
10. watch trucks	
11. see fish	
12. watch guys play tennis	
13. watch hippies	
14. go in and see dead people	
15. look at cars	
16. look at ships (models)	
17. wait for train	
18. watch ballet dancing	
19. watch guys play their instruments	
20. watch guys practice	
21. watch kids hop freights	
22. watch kids swim	
23. watch planes	
24. watch animals	

Total mentions

B. ACTIVE STRUCTURED RECREATION	151	(27)
1. baseball		
2. football, tackle		
3. cards		
4. basketball		
5. soccer		
6. foursquare/twosquare		
7. play games		
8. bowling		
9. dodgeball		
10. hockey		
11. tag		
12. volleyball		
13. pool		
14. stick ball		
15. wiffle ball		
16. checkers		
17. ping pong		
18. footraces		
19. frisbee tag		
20. pinball machines		
21. outs		
22. poker		
C. ACTIVE UNSTRUCTURED RECREATION	104	(33)
1. hop freights, jump off		
2. go on rides, amusements		
3. ride elevators		
4. look for tennis balls		
5. game of war, play guns		
6. climb, play on "mountains", dirt piles		
7. throw rocks, rock fights		
8. climb on three cannons		
9. climb roofs		
10. catch frogs, turtles		
11. jump on tires		
12. ride bike up and down mounds		
13. jump off trestle		
14. slide on cardboards		
15. snowball fights		
16. catch grass hoppers		
17. build forts		
18. fool around on trucks		
19. go in empty garage		
20. go in empty house		
21. jump in sand pile		
22. jump up and down on furniture		
23. knock over barrels		
24. run on trestle		

Total mentions

25. run through sprinkler
26. sand fights
27. skid on bikes
28. skip rocks
29. throw cans in river
30. throw rocks at bottles
31. go up and down stairs
32. break bottles
33. carve names
34. chop trees
35. climb fences
36. climb on scaffolding
37. climb trees
38. explore
39. go down hill
40. hang on to truck, get ride (winter)
41. jump from roofs
42. jump in rubber pits
43. kiss
44. rain dance, climb lamp posts, shake
45. shoot guns
46. splash in fountain
47. throw rocks at cans
48. walk the tracks
49. yell
50. crawl through sewer pipes
51. play with shopping carts

D. MODERATELY ACTIVE UNSTRUCTURED RECREATION 95 (32)

1. visit people
2. drink water from fountain
3. sit outside
4. sit on steps
5. go to friends
6. talk
7. play with dogs
8. talk to someone
9. look for kids/meet friends
10. lie down
11. take pictures
12. talk to men at fire station
13. play with cars
14. get air for bike
15. get free paper
16. play in sandbox
17. feed animals
18. play with kittens
19. roll on the grass
20. trade baseball cards

Total mentions

21. look for keys
22. play cops
23. ask man on truck for candy
24. bum money
25. get chalk
26. draw with chalk
27. follow boys (girls)
28. play house
29. play with dolls
30. stay home
31. tease dog
32. bum smokes

E. MISCELLANEOUS 90 (71)

1. hang around
2. play
3. fool around
4. mess around
5. nothing to do
6. sit around
7. do everything
8. do our (their) own thing
9. do nothing

F. ACTIVE MODERATELY STRUCTURED RECREATION 89 (14)

1. play ball, play catch
2. swim
3. fish
4. swing
5. play on monkey bars
6. wrestle
7. bounce ball against wall or steps
8. have picnics
9. ice skate
10. ride on slide
11. hide and seek
12. jump on mats, trampolene
13. kite flying
14. tobogganning
15. go camping
16. jump over hedges
17. shoot bow and arrow
18. skiing

Total mentions

G. CONSUMPTION	82	(5)
1. shop		
2. buy stuff		
3. go out to eat		
4. get coke from coke machine		
5. get ice cream		
6. eat pizza, subs, etc.		
7. buy guns		
H. TRAVEL	78	(1)
1. ride bike		
2. ride around (car, parents)		
3. walk around		
4. ride horses		
5. sail sailboat, help with sailboat		
6. boat ride		
7. follow fire trucks		
8. go over bridges		
9. ride mini-bus in common		
10. ride swan boats		
11. bike hikes		
12. field trips		
13. go on trips		
14. go somewhere		
15. hiking		
16. sightsee		
I. INACTIVE STRUCTURED RECREATION	50	(3)
1. go to baseball game		
2. go to shows		
3. read		
4. watch baseball on tv		
5. watch hockey games		
6. listen to radio		
7. go to circus		
8. listen to records		
9. see dog show		

Total mentions

J. UNAPPROVED ACTIVE UNSTRUCTURED RECREATION 30 (89)

1. get kicked out
2. drink
3. get chased by cops, get bagged
4. pick on kids, hit them, beat them up, jump them
5. chase kids
6. sneak in (football, subway)
7. break windows
8. fight
9. light fire crackers
10. ring doorbells
11. smoke
12. steal things, steal cars
13. wreck stuff
14. write on walls
15. pull knives on kids
16. push kids in pool, splash them, try to drown them
17. raise cain
18. ring fire alarms
19. set fires
20. slit tires
21. start fights
22. start riots
23. steal bikes
24. steal cookies
25. switch the tracks
26. throw fish at boats
27. throw kids in the water spray
28. set fire to trains, trestle

K. INSTITUTIONAL 15 (2)

1. go to doctor, dentist
2. go to school
3. go to church
4. go to meeting
5. pray and water flowers
6. get haircut

Total mentions

L. WORK

9 (0)

1. go to bank
2. errands
3. help guy fix garden
4. help man
5. pay bill
6. send telegrams
7. shine shoes
8. do family wash
9. help cook
10. help guys fix their cars
11. help kid with wires, work (mit)
12. paper route

D. CLASSIFICATION OF PLACE TYPES FOR CITY KNOWLEDGE:
PLACE RECALL

I. How much do s's know about the social character of the city?

- 11. Poor neighborhoods
- 18. Rich people
- 20. Famous people's houses
- 22. Foreign neighborhoods, e.g. Italian, Spanish
- 25. Hippies
- 29. Jewish neighborhoods
- 35. Black neighborhoods
- 40. Nice neighborhoods
- 44. Slums
- 50. Housing projects

II. How much do s's know about activity choices in the city

I. INACTIVE

- 4. Auto showrooms
- 5. Hear a concert or see a play
- 7. Movies
- 8. Fine paintings and sculpture
- 10. Watch professional sports
- 17. Learn about science
- 19. Colleges
- 21. Find out about Boston/Cambridge history
- 37. Libraries
- 41. Auto showrooms

II. ACTIVE

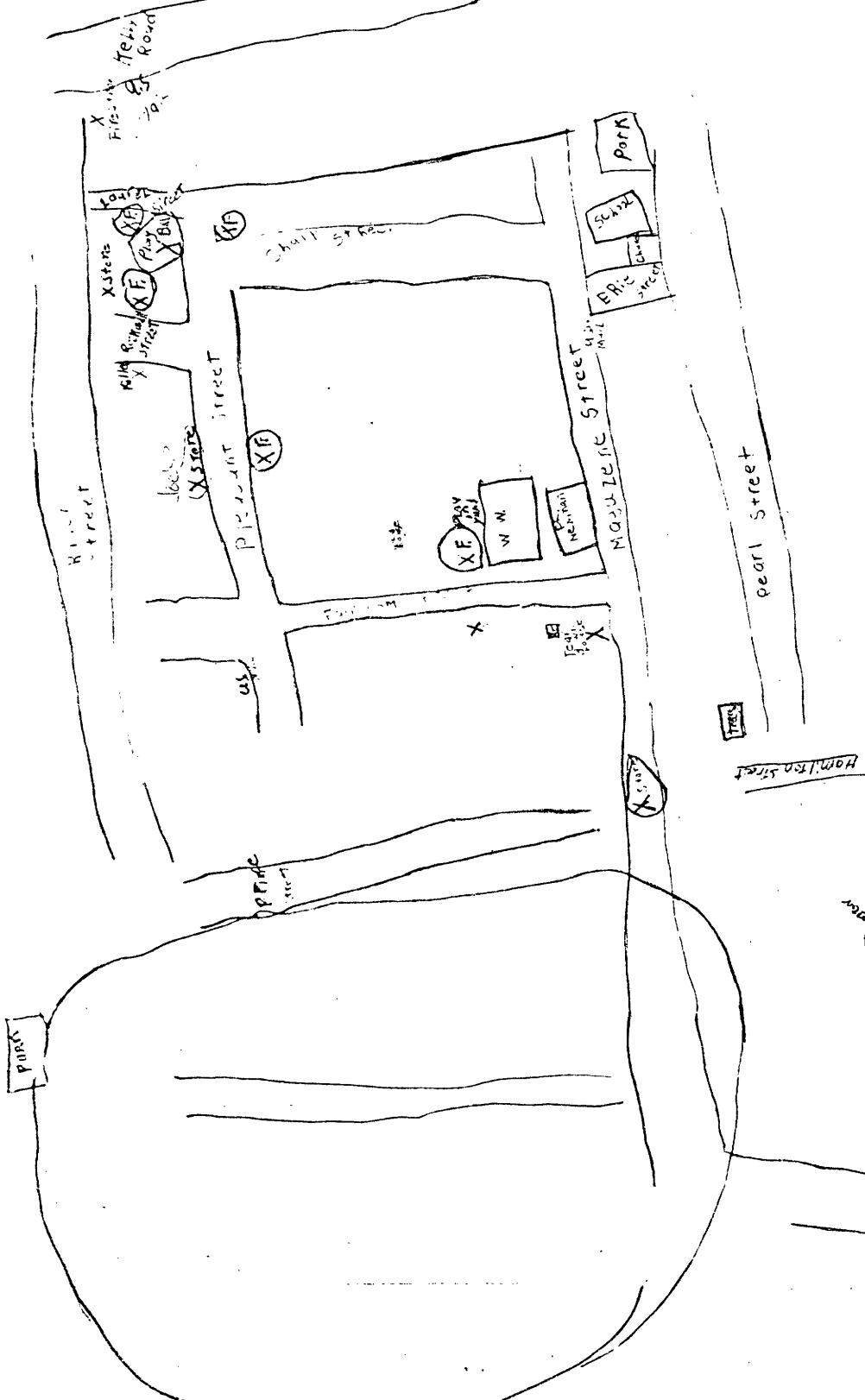
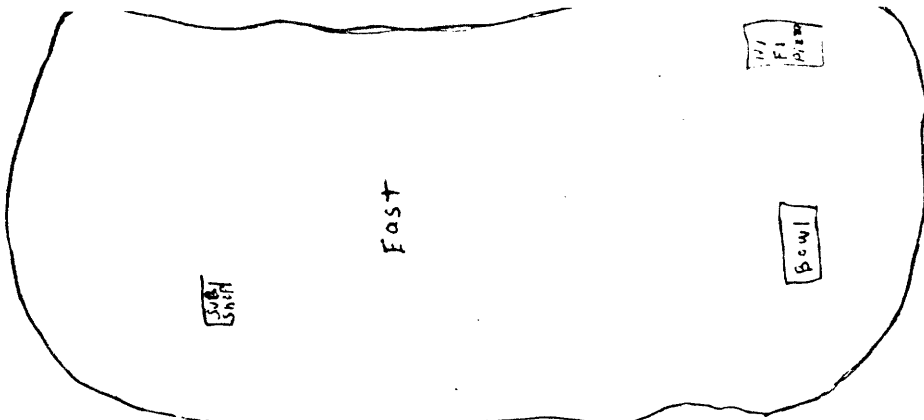
- 1. Eat foreign food
- 2. Take a boat ride
- 3. Play outdoor games
- 4. Swim
- 6. Have a picnic
- 9. Buy expensive things
- 12. Shop in big stores that have a lot of things
- 13. Dangerous places where you can get into trouble
- 14. Buy candy or ice cream
- 16. Catch animals, e.g. bugs, snakes, frogs
- 43. Good bike roads
- 46. Exciting places

III. How much do s's know about form choices in the city?

- 25. Ruins
- 26. Water: ponds, harbors, rivers, lakes
- 27. Panoramas of the city
- 28. Very old buildings
- 30. Ships
- 31. Flowers and gardens
- 32. Factories
- 33. Areas with rocks and big trees
- 34. Railroad tracks and trains
- 36. Big parks
- 38. Beautiful buildings and streets
- 39. Construction sites
- 42. Highways
- 45. Modern buildings
- 47. Junk yards, dumps
- 48. Fields with long weeds, vacant lots
- 51. Big bridges
- 52. Nice churches
- 23. Mansions
- 49. Historic Places

D. NEIGHBORHOOD AND CITY MAPS DRAWN BY SUBJECTS

North



Hamilton Street

found
fence

DUND
Park

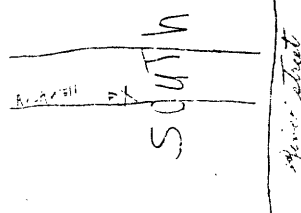
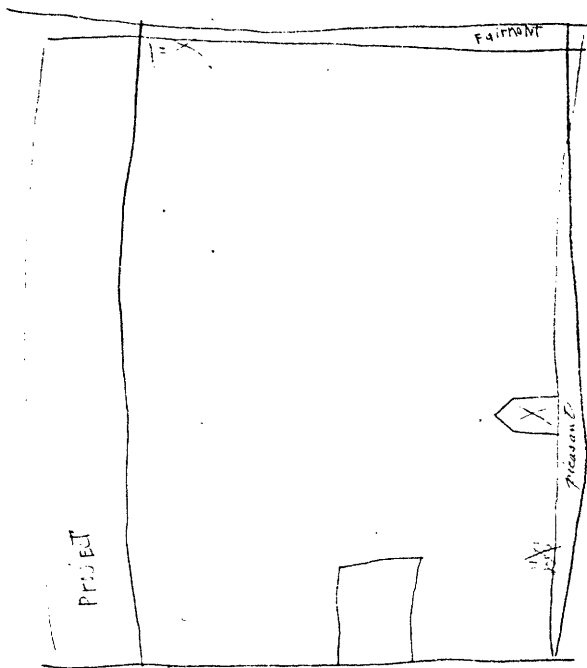
WEST

600
SOUTH

OLD
HOUSE

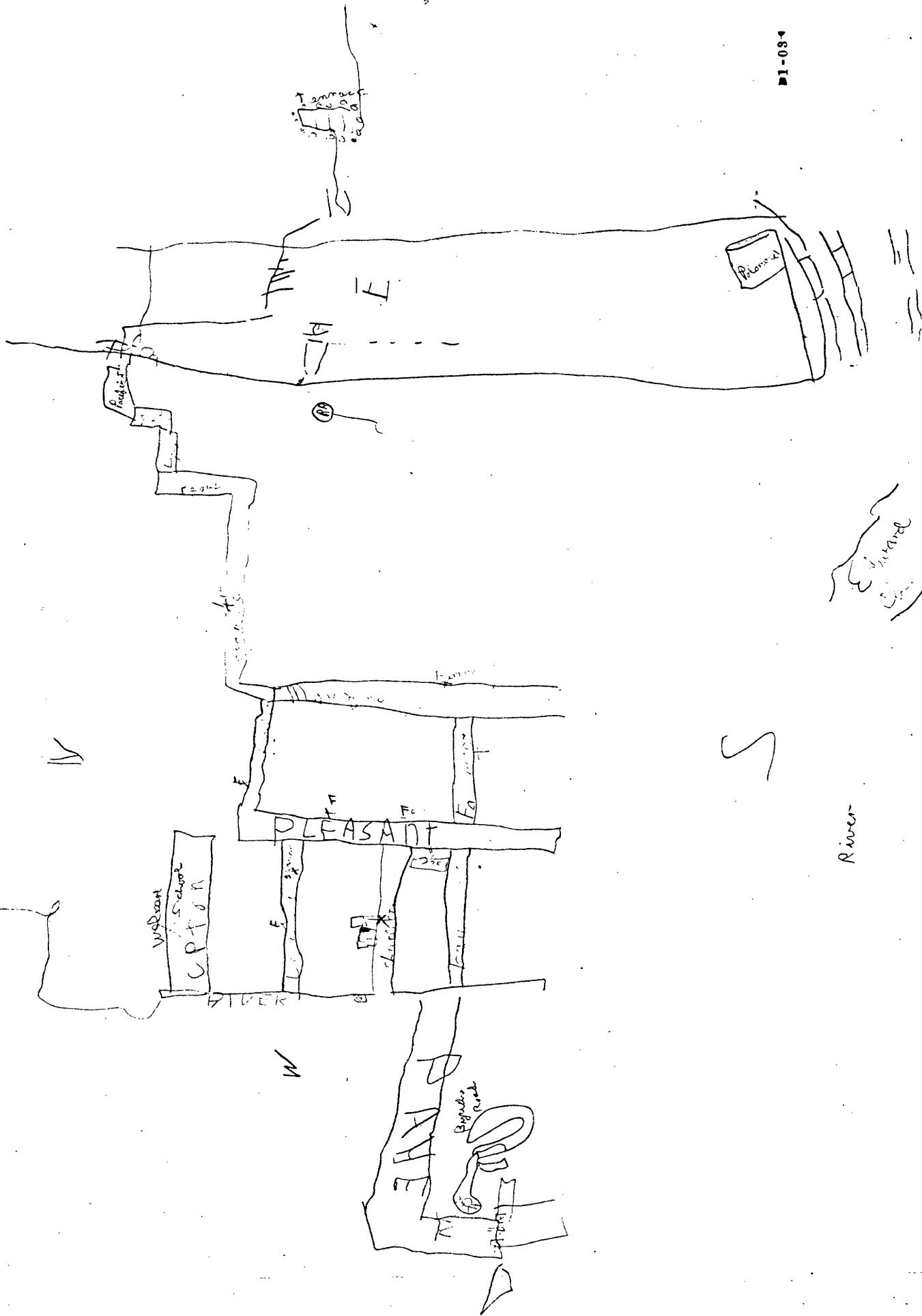
EAST

77
FENCE



600

Cominal Square



Handwritten scribble

River

S

W

Handwritten scribble



Park

Madill
St.

S

Charles River
Field

Pool

Brookline St.
Linstron
Field
Granite St.

Crescent St.

Furness
Ave.

St. Anne's
Ch. 1856

Sumner St.

Autbor
St.

Pleasant St.

Acorn
Park
Allston St.

Magazine
St.

Patience
St.
Prince St.

Rock
XF
Rivers
Hot
Flea

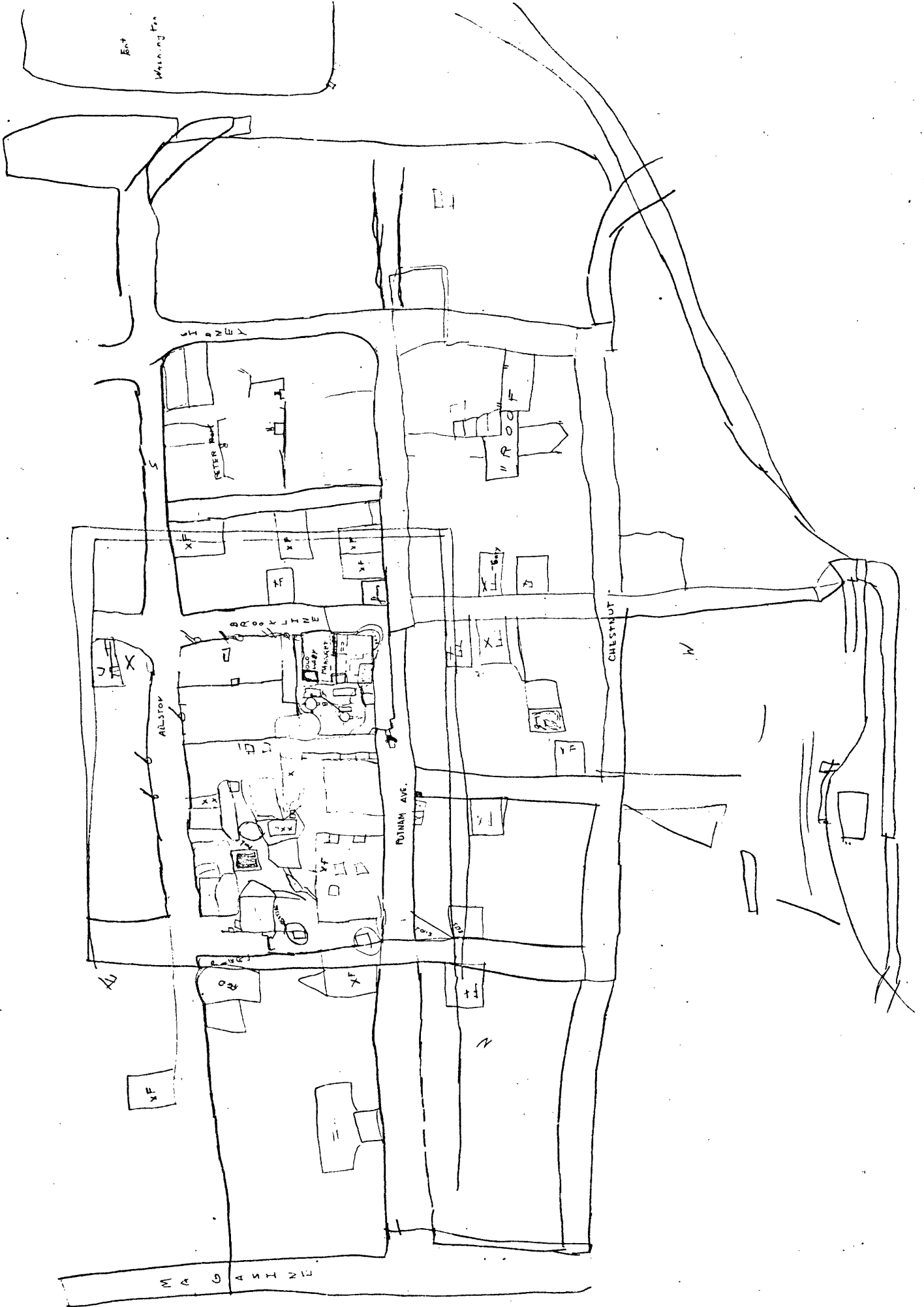
Central
Square

Finch
St.

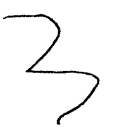
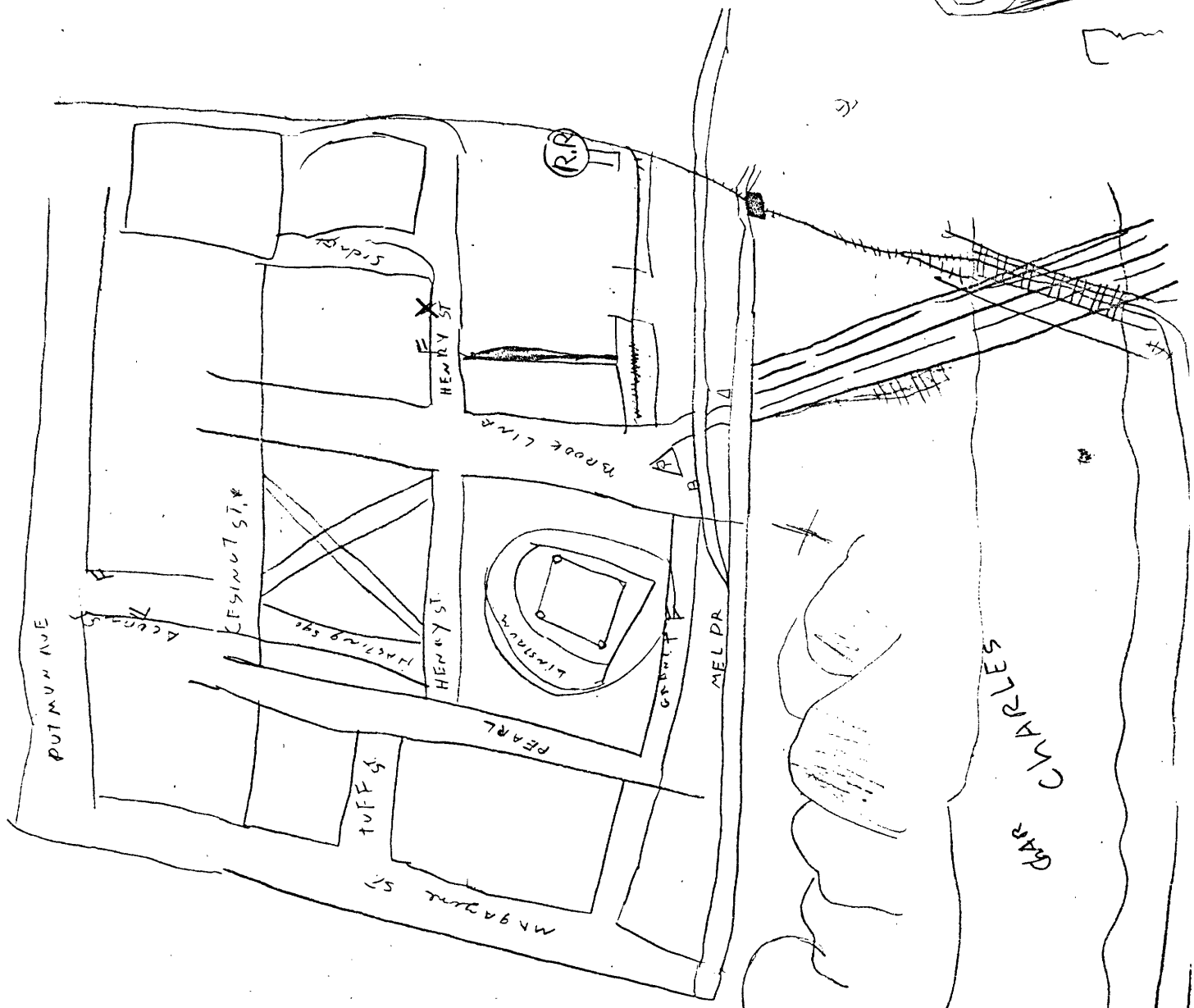
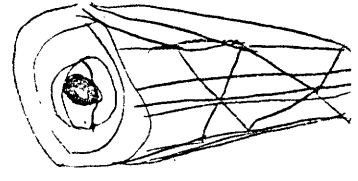
N

Norman
and Sean

2nd
Mining Co.



E



F



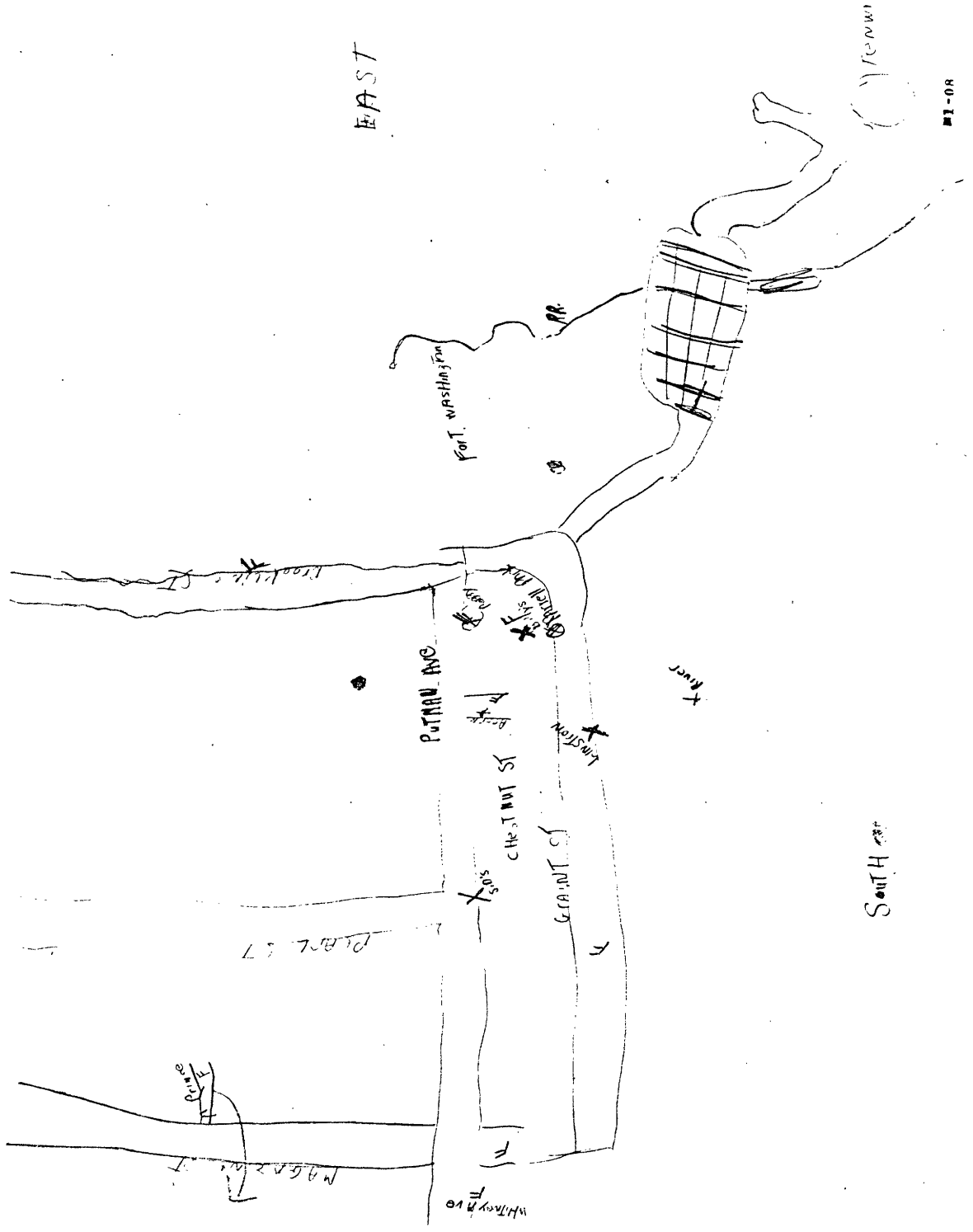
C

BM
Ard

NORTH

WEST

EAST



SOUTH

MI-08

KEVIN MCGALDRICK

Pool

Mingrove

Newton St Girls

ST

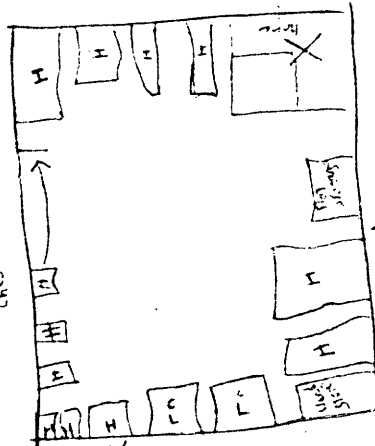
Pearl St

ST

Drumy Hill

F X

Access St



Building

Plymouth Ave

Bus stop

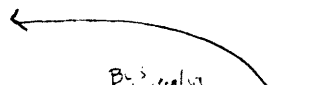
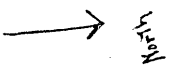
TI

Enter

Allison St

John St

St



FX

Lindstrom

Swamp

St Henry

1st St

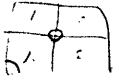
11/4
Ramp

St

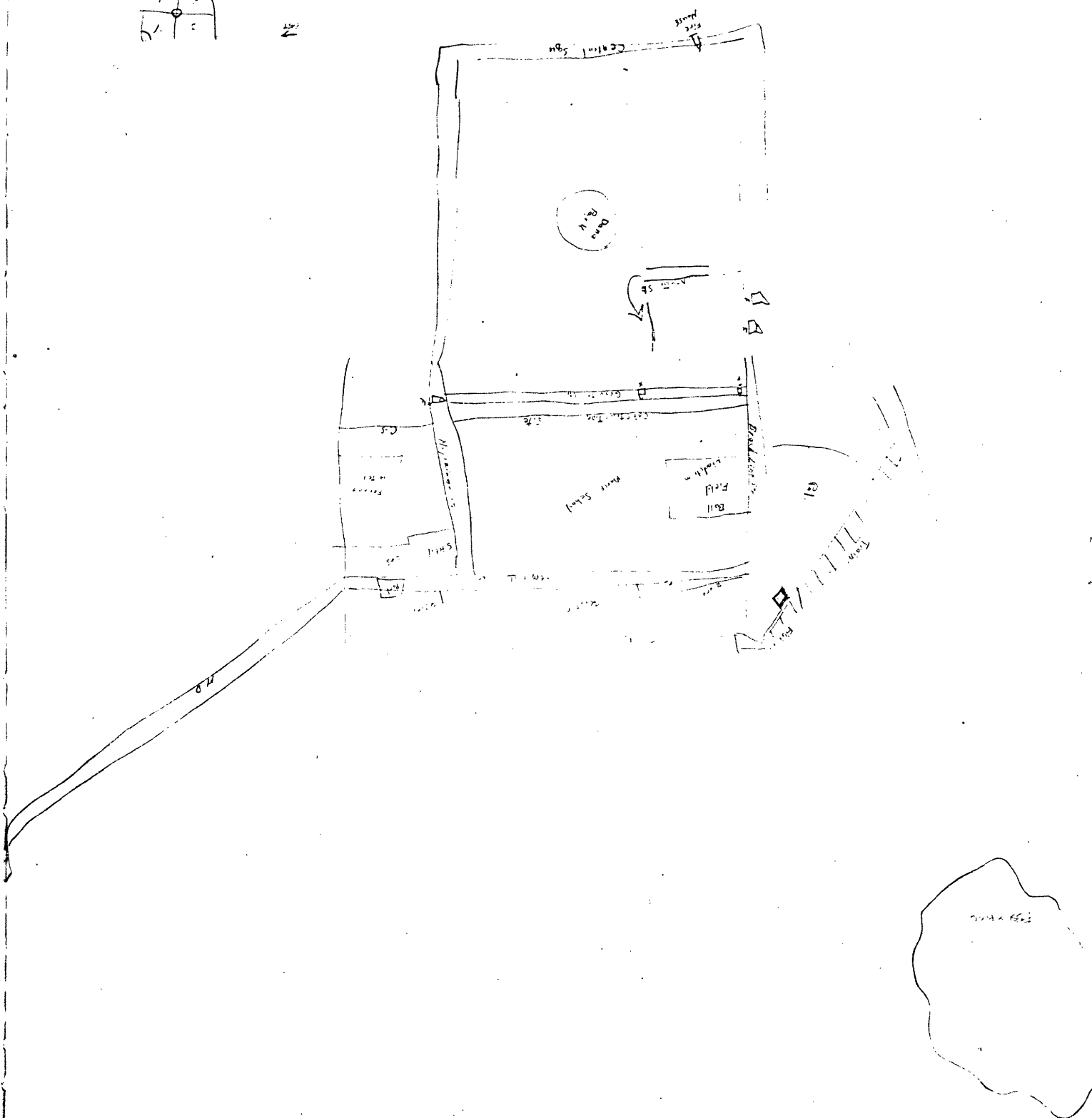
Booth Community

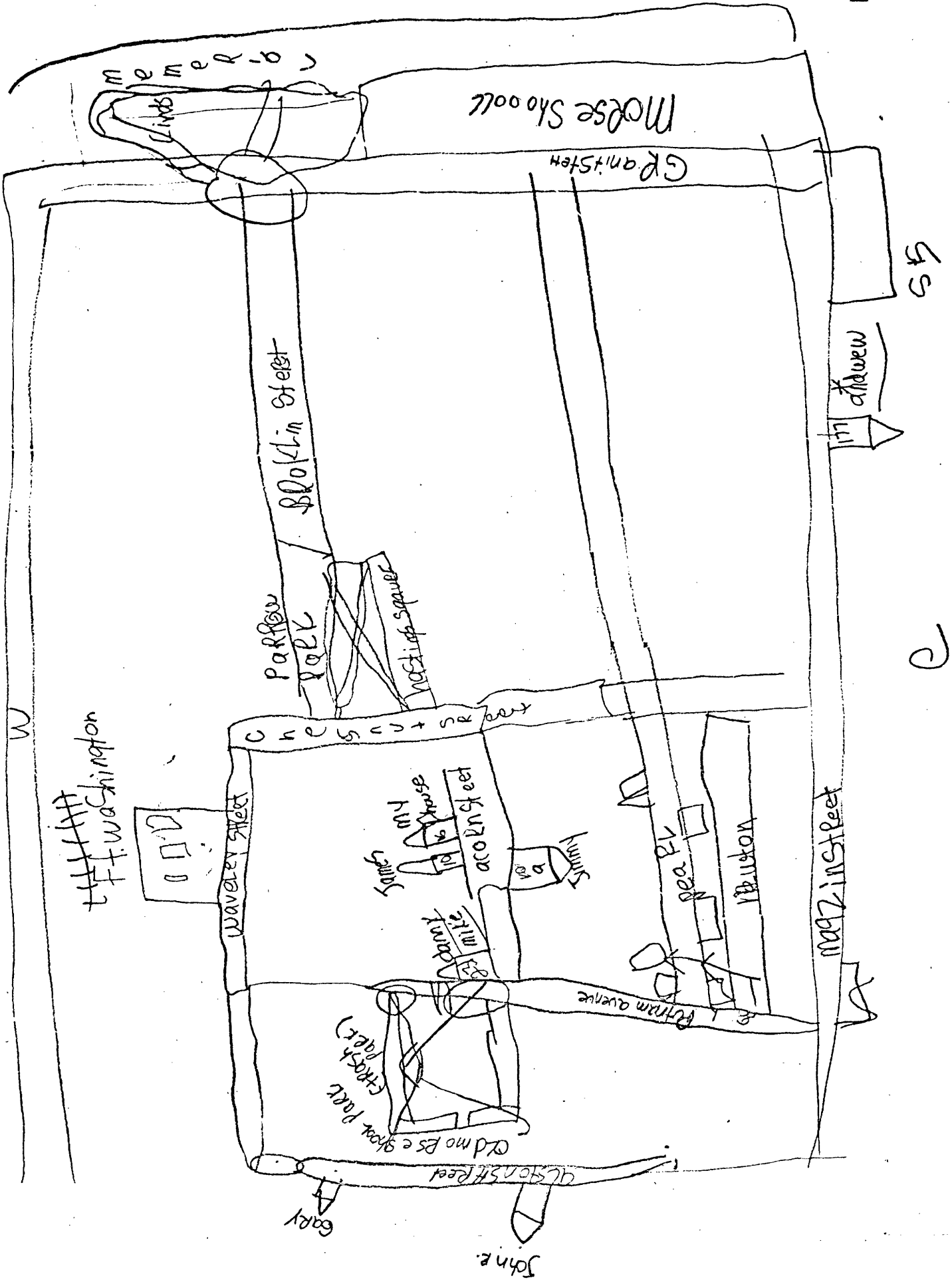
77 North

01-10

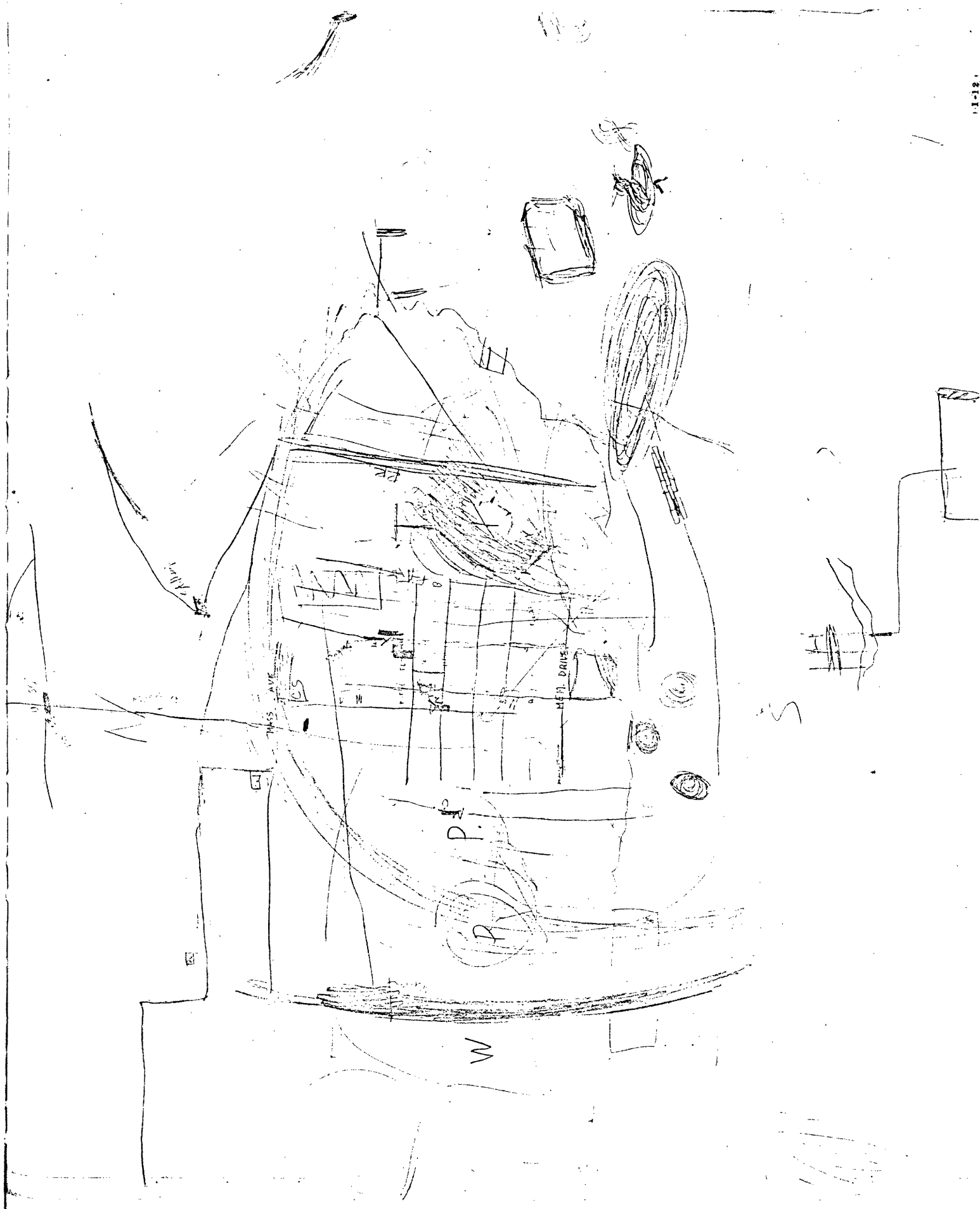


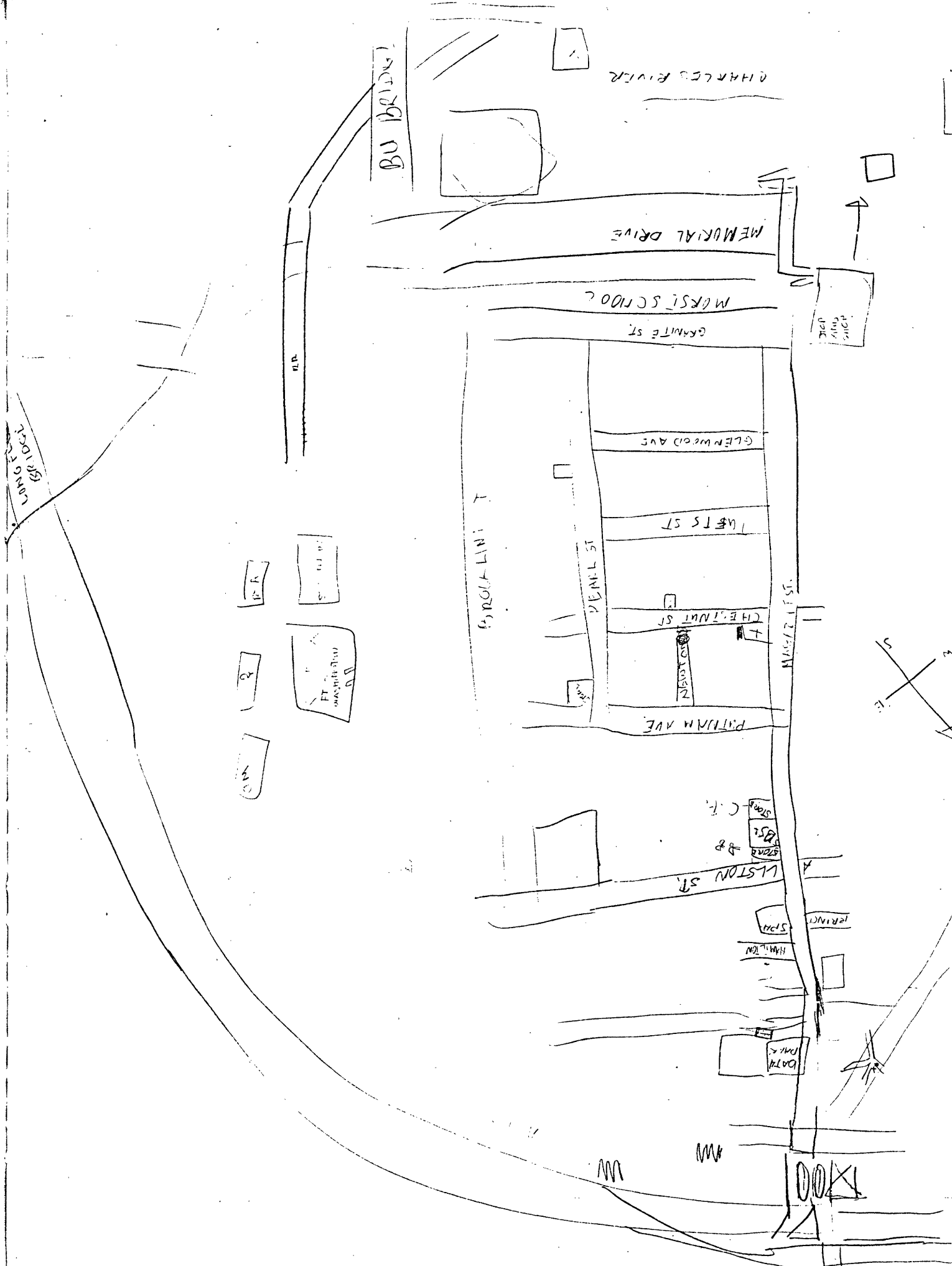
1000





2





BU BRIDGE

CHARLES RIVER

MEMORIAL DRIVE

WESTSIDE SCHOOL

GRANITE ST

GLENWOOD AVE

LUTES ST

CHESTNUT ST

PATTON AVE

GROUPLINE T

PEARL ST

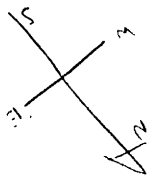
N. 21ST ST.

LINTON ST.

SPRING

HAMILTON

DATA



CONG. ST. BRIDGE

FT. ...

FT. ...

FT. ...

FT. ...

FT. ...

XXXX

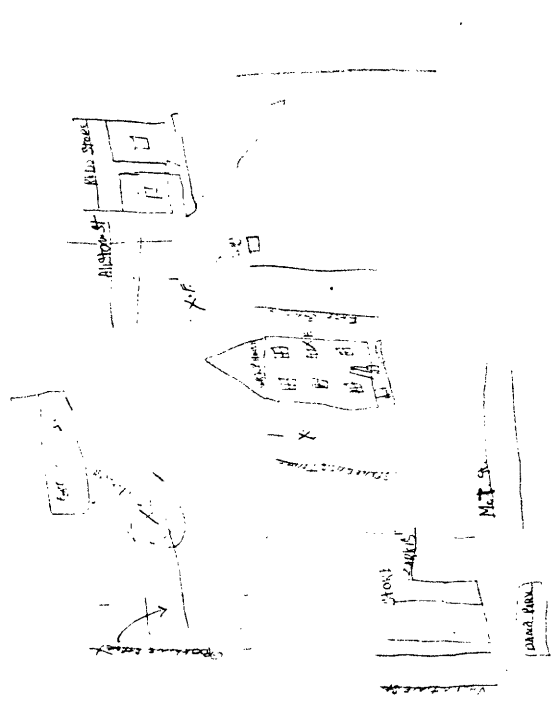
Brown M. J. D. Adl



CHART



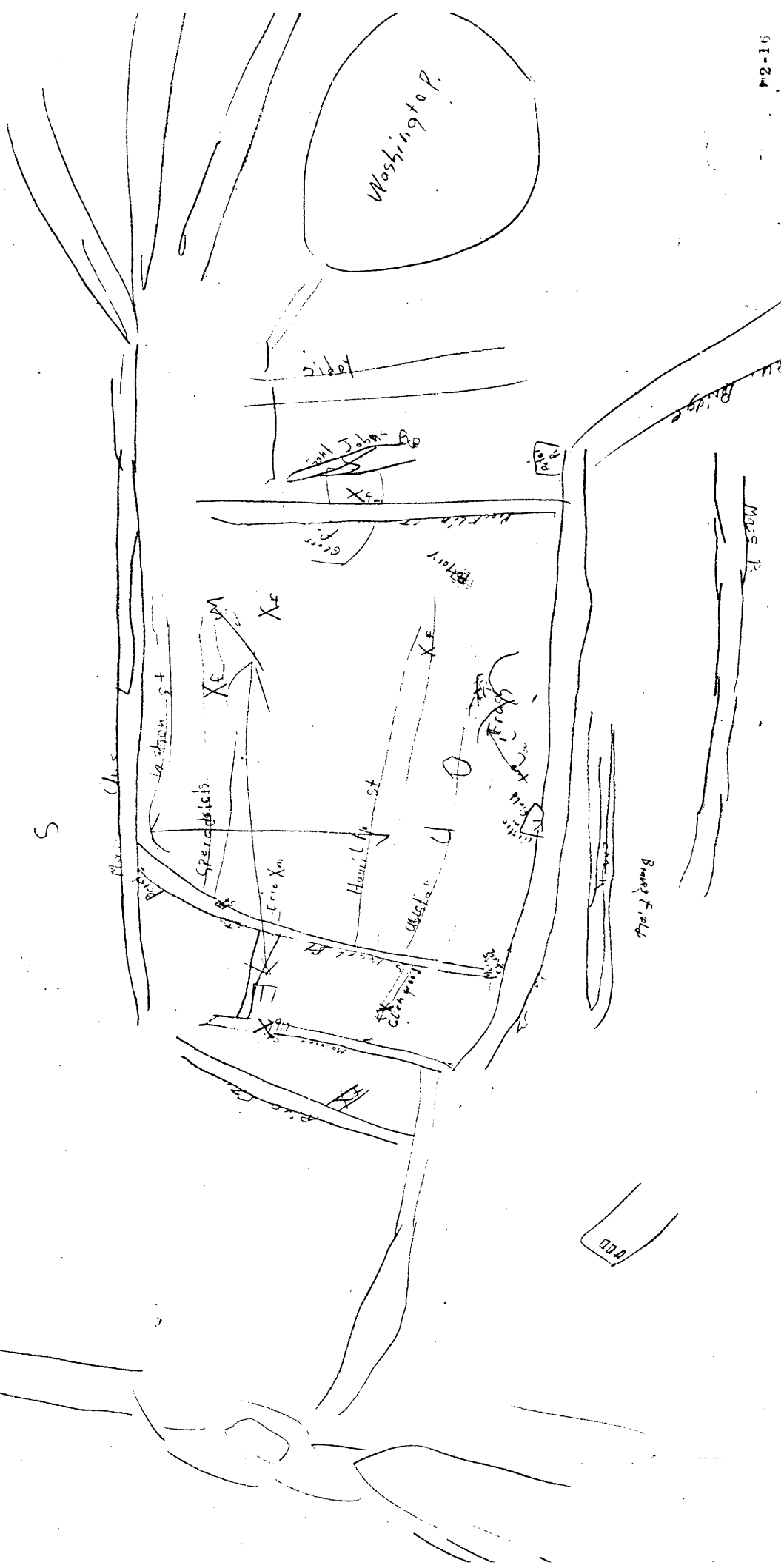
146



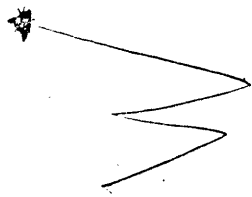
Michael

M.H.

No. 1000
cont.



OTD



* VII ST

FRANK
FRANSEY

W P I E S T

H A L L I T H

TRUCKS

MISS ST

MISS ST
T T I - P M

F I R O I S
P I R K

S P I N T S O L I N B U R Y

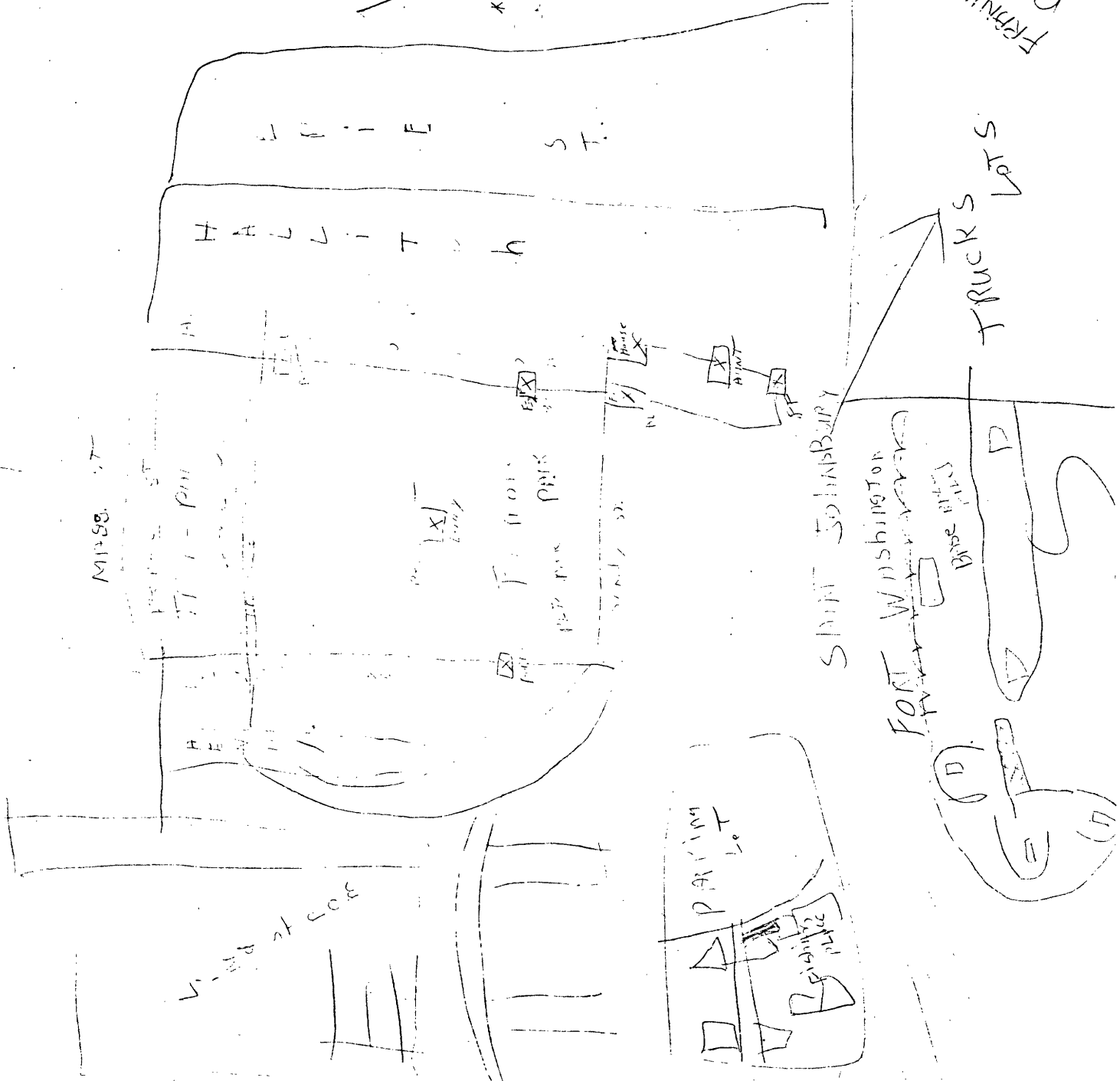
F O R T W A S H I N G T O N

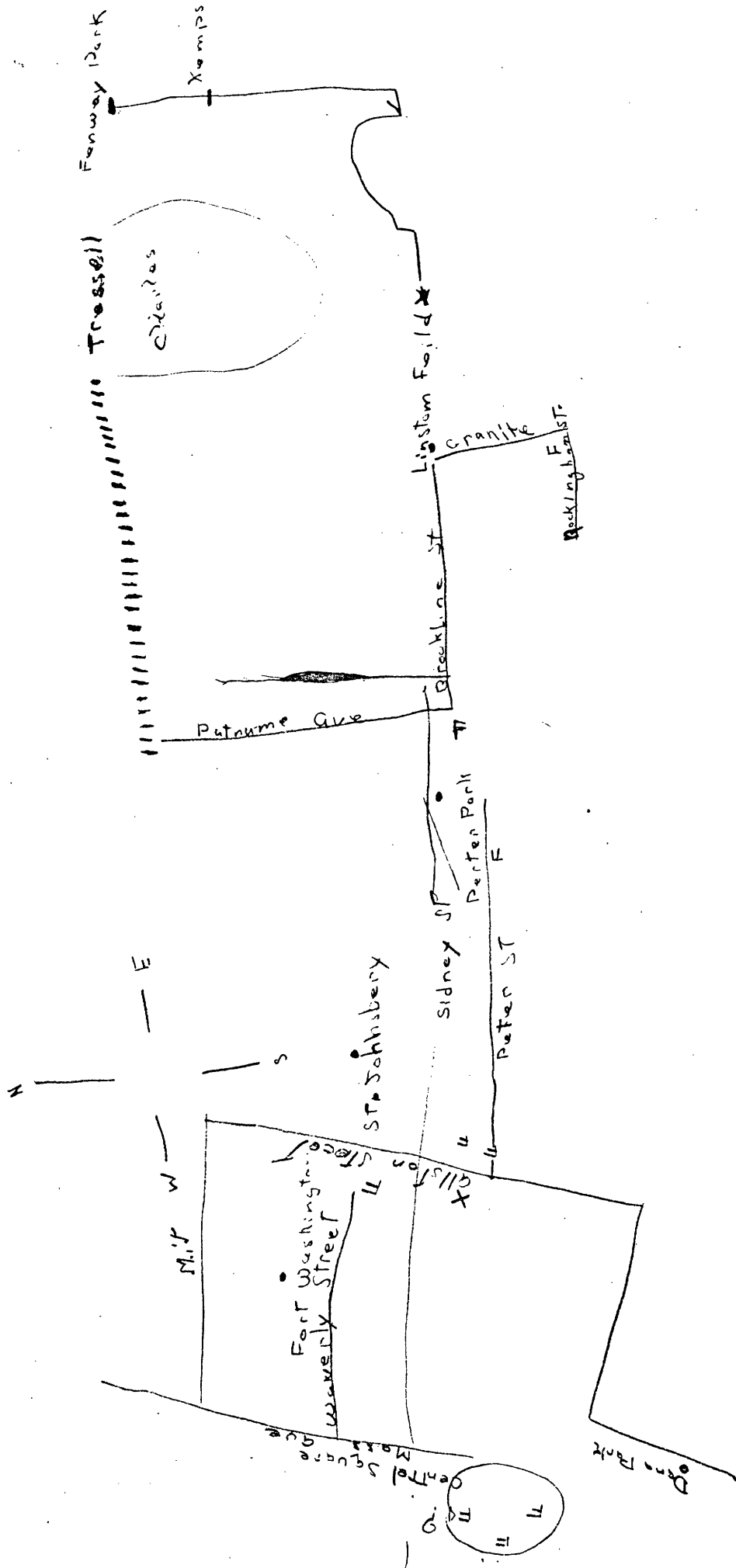
B A S E P I L L S

P A R K I N G
L o

B u i l d i n g
P L A C E

300 ft P.M.

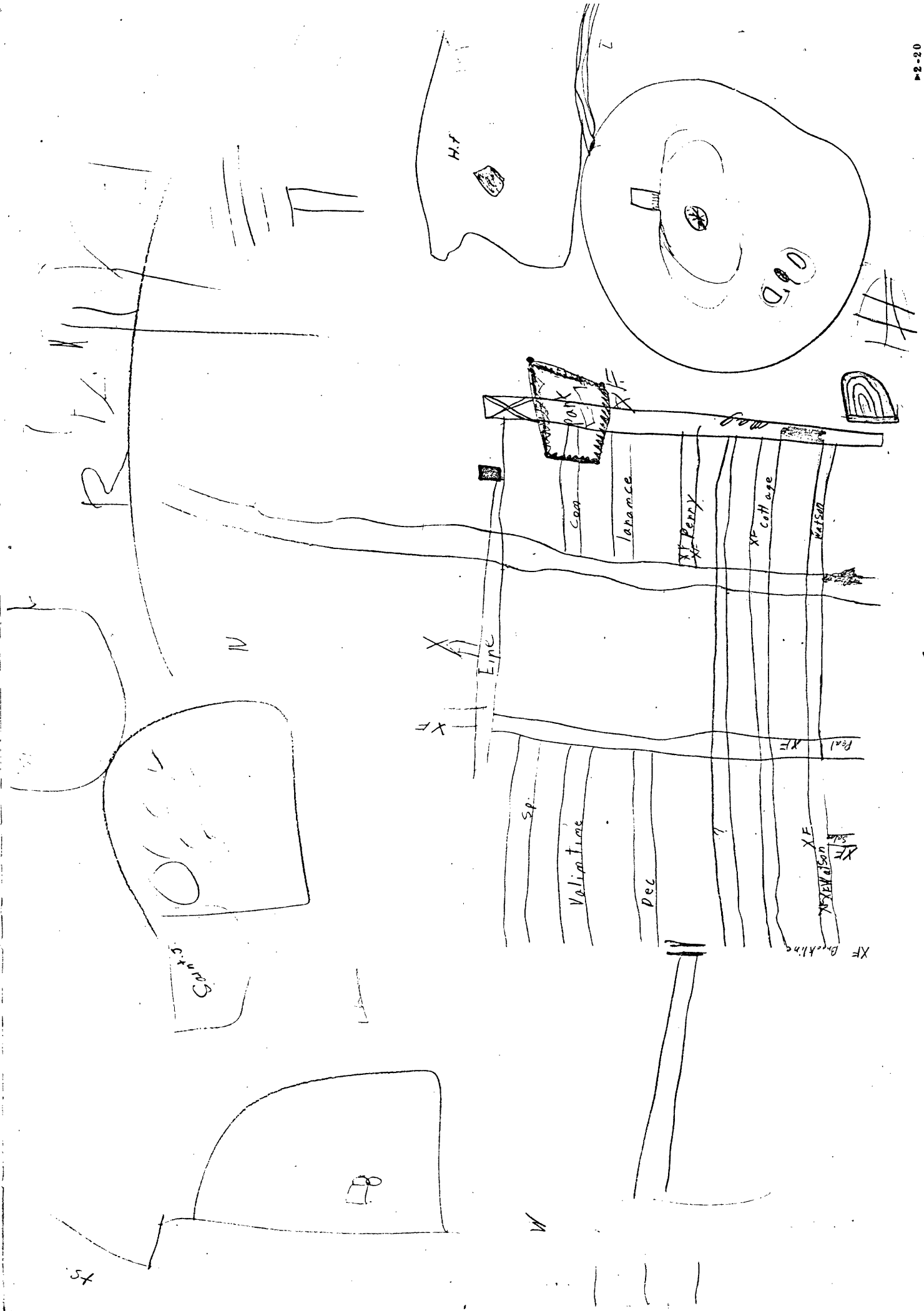




2-18

Trush Park

Station Remiser

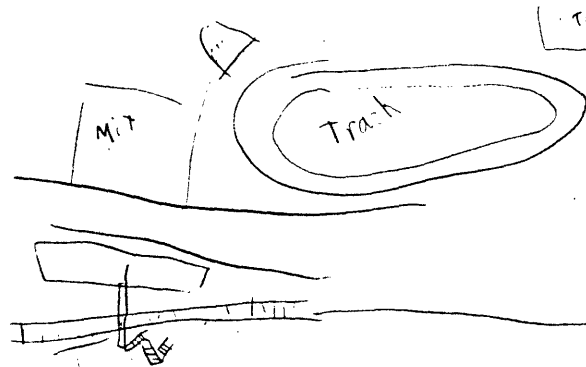


S. r

75

Coast

Tennis court

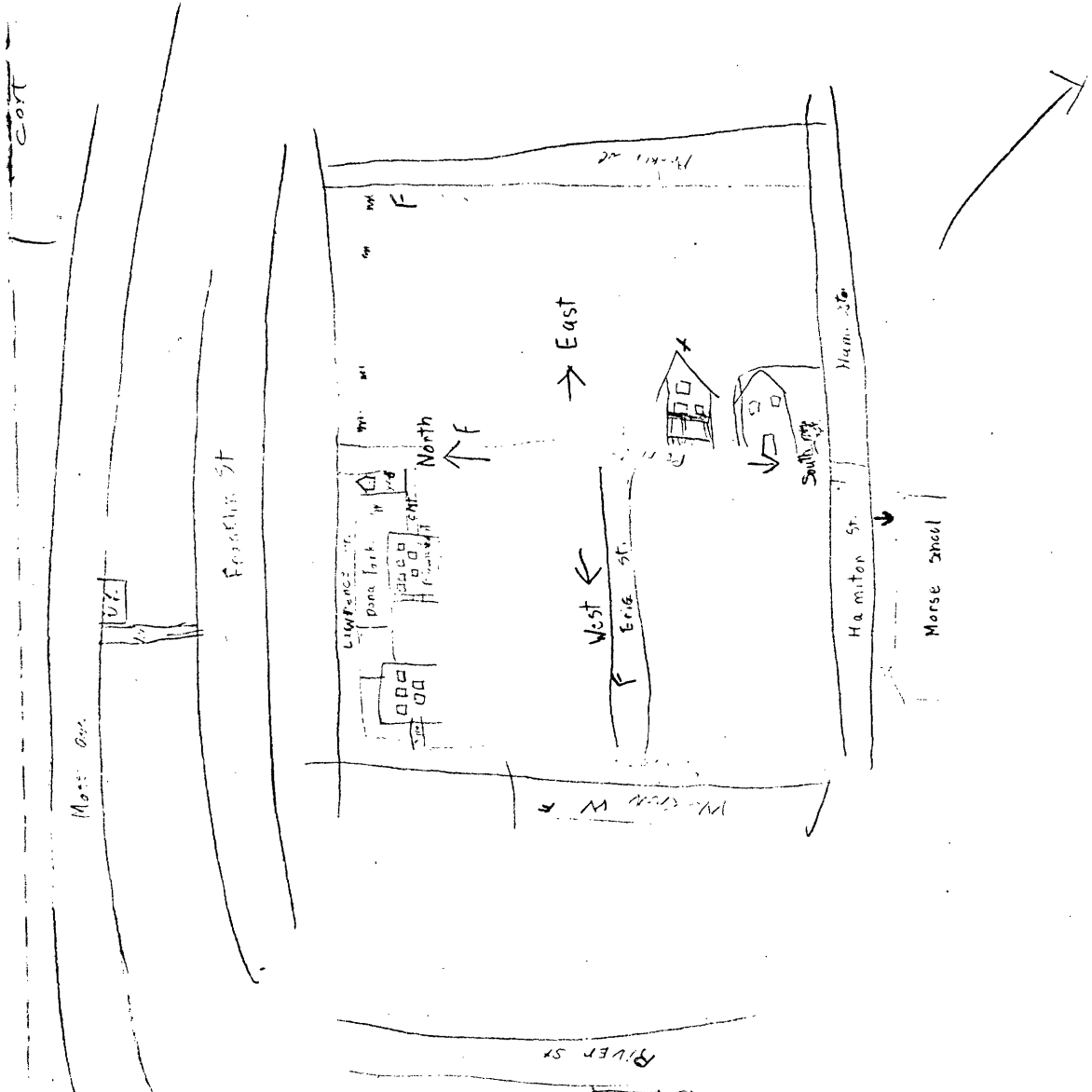


MID CO. Co.

Cambians farm Drive

Moem. Drive

Steven Loder

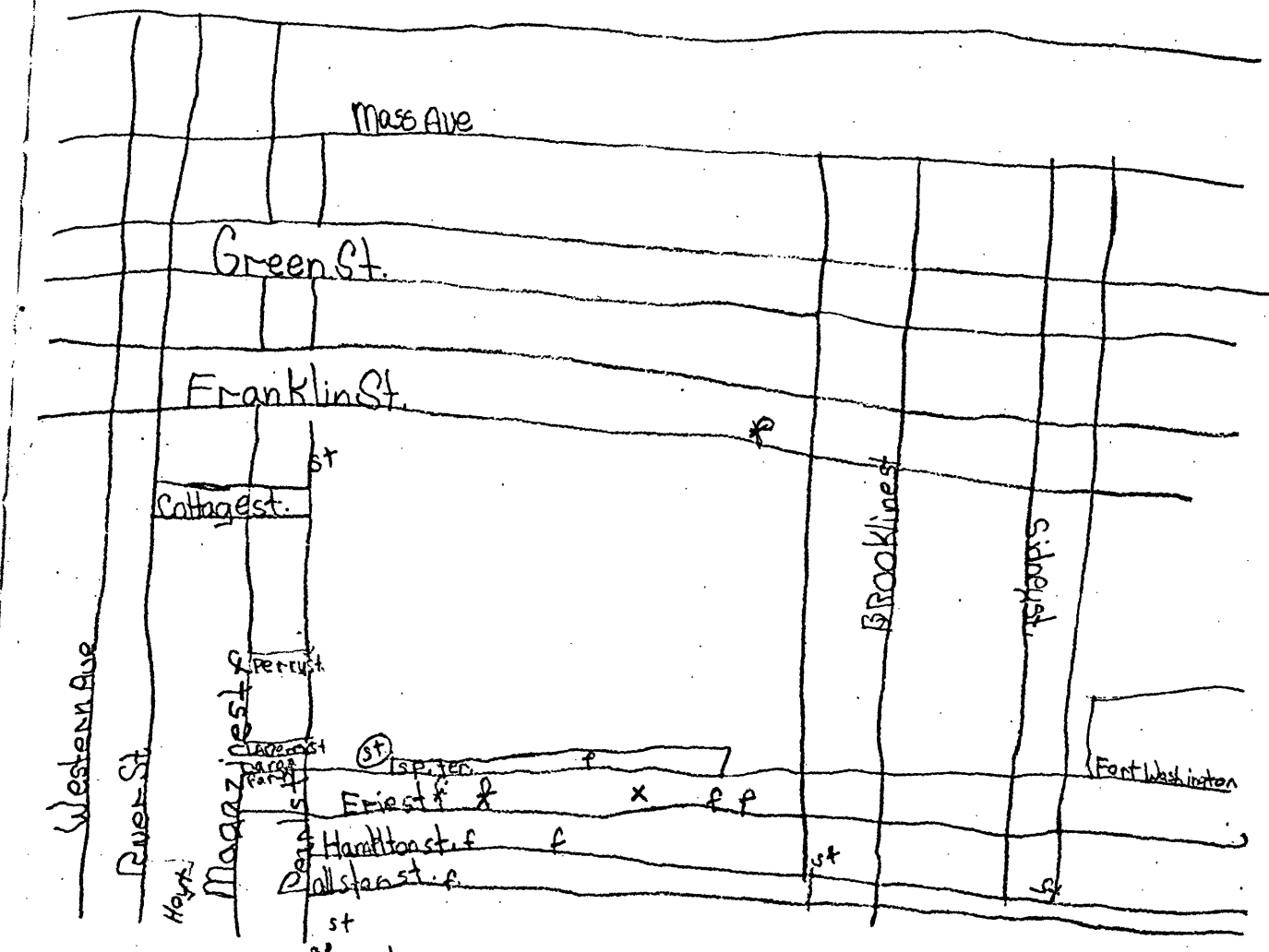


Coast Point

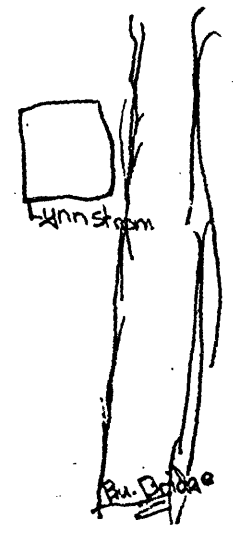
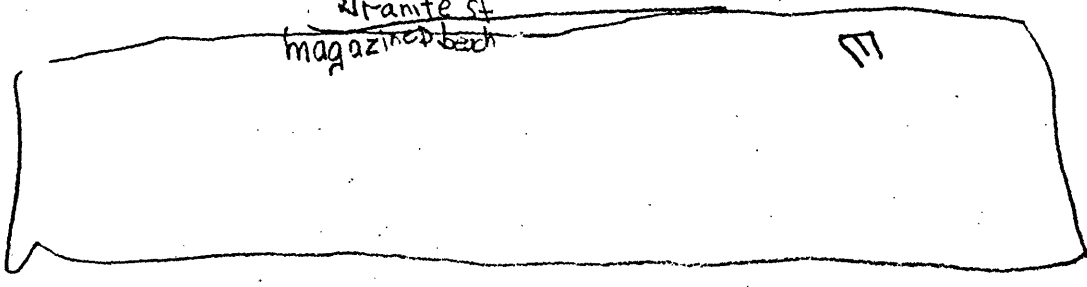
□ North Camb.

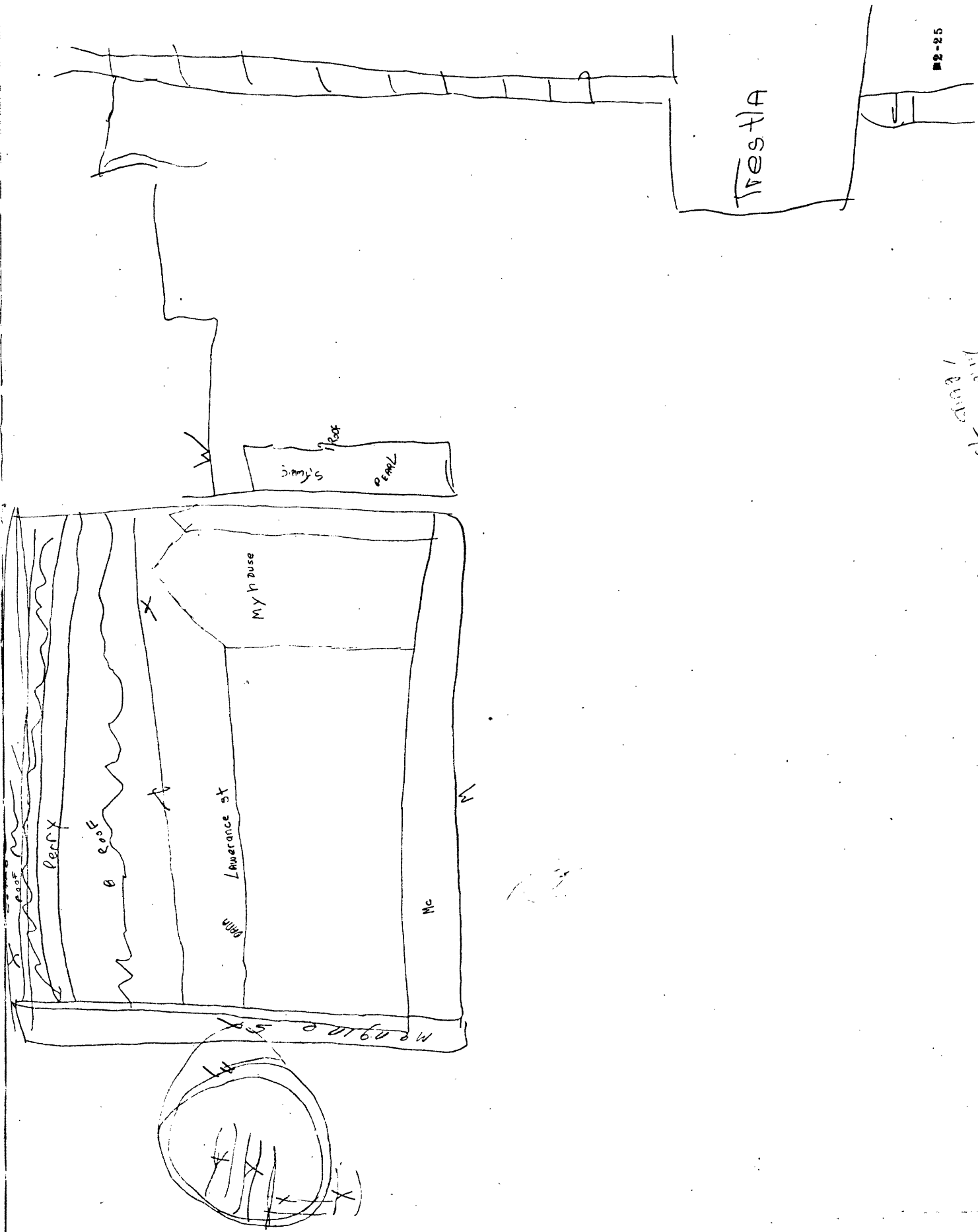


W



N

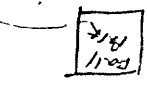
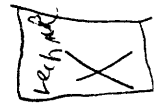
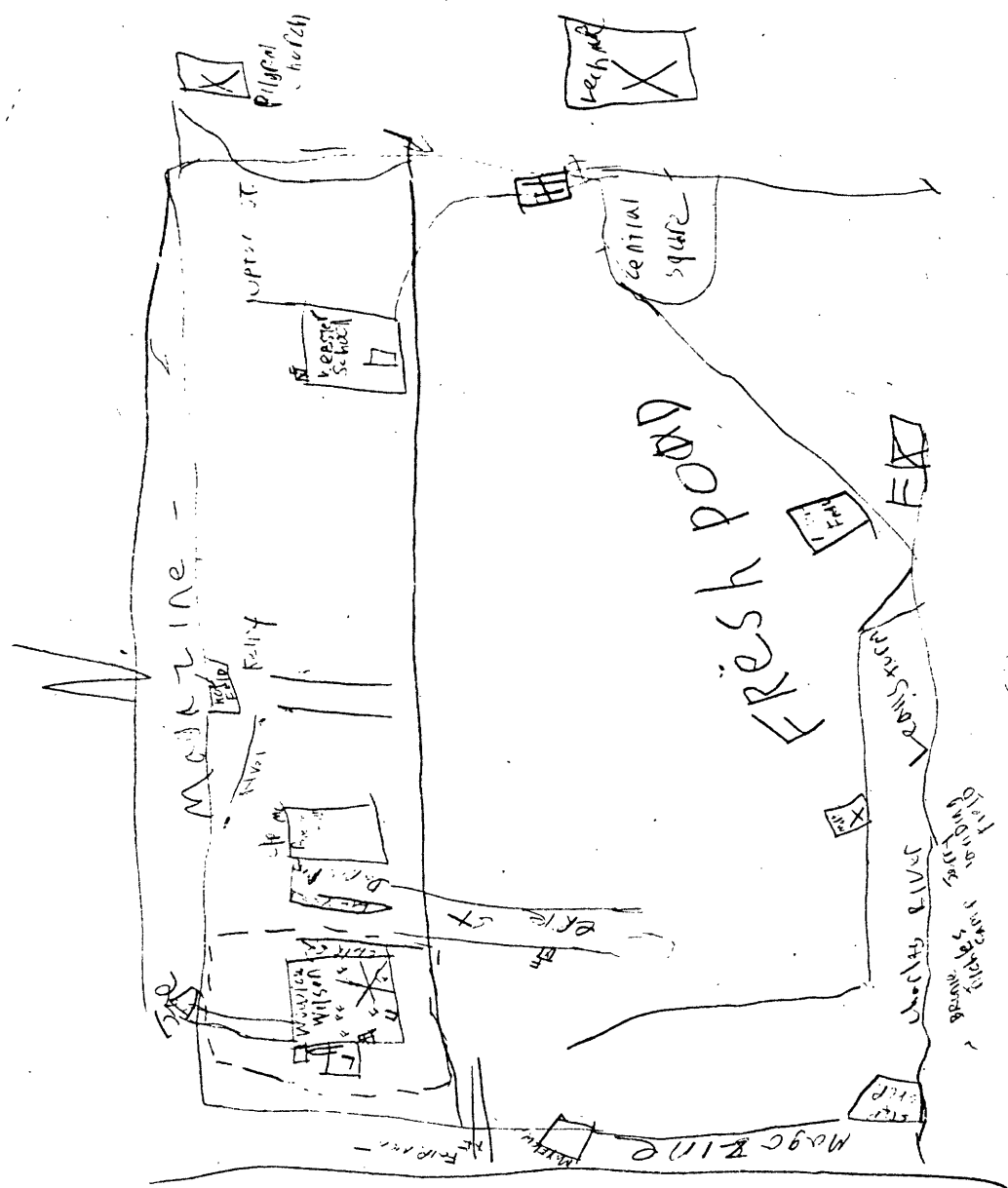




M2-25

11/11
 1/20/02
 1/20/02

MT Qu BOA



E. INVENTORY OF SUBJECT COMMENTS ON SOCIAL AND PHYSICAL DANGERSOCIAL DANGERSM.

Bad kids live north of Allston.. you might get jumped or somethin'

We've gone through two jumpings.. the second jumping was right behind Woolworths--about 15 kids were trying to get John to go in and steal something--if somebody saw them they'd shove him to the ground and run.

Ft. Washington is where the real tough ones hang out--if they can catch you down there on Saturday not so much Saturday as on Sunday--you just better beg for mercy--that's what they're after--you beggin em for mercy.

My parents aren't too crazy about letting me go to Ft. Washington area--John got jumped once..

The railroad tracks down by Sidney St.--I got some prejudices against it cause I once got jumped down there by some kids..a couple of years ago--one was a teenager.

The trestle..my parents wouldn't like it if I told em what it's really like..fresh kids, clippin everything, hoppin freights, everything..we cut out--they can't catch us--if they was younger, I'd kick their heads in instead of runnin..

Once in awhile I don't like to go down to the train tracks cuz once in awhile there are alot of fresh kids down there like they say, get out o here, we don't want ya down here..

L.

We don't go down Allston Street--there aren't any kids on that st. they're all big kids..they push us around and tell us to get out of here.

We went down to Ft. Washington to play football last season but we haven't been down there since because a kid got beat up pretty bad..beat up by 5 kids in the 8th grade--came down there, I was playing football and they came running out of behind the mounds down there and they caught the football and took off with the football which was mine and they came back later because we had another football and took that football and we had the last one.. they came down there and got it again only this time we tried to get it back and this big fat kid.. he tried to stop em--there was 5 kids about 6'6" in the 8th grade and they got down and pounded on him and they were punchin him down in the grass so we just don't go down there cuz they come off the freights...

SOCIAL DANGERS

My parents don't want me to go over to places like River Street, the tracks-they tell me to stay away from bad kids.

I wouldn't go to Western Ave. alone at night especially-there are a lot of bad kids there and gangs.

I don't like goin down Pearl St. cuz most of them kids live around here and when you go by that school you see a lot of em hangin around-I come ridin by one day and saw about five of em together and they started throwin rocks at me and I was carryin somethin too-I was lucky nothin hit me.

Colored kids start riots, they break big bottles and start big fights..

At the park there are a lotta fresh kids..colored kids..some of them try to drown you, they get 5 kids that are way bigger than you and they jump on you.. the lifeguards are scared of them...

I hate goin down to that pool.. a couple of colored kids-they make trouble and all that-they push you in and all that-they don't bother me but I see other kids bein pushed around-the only kids who do it are the ones who have big brother-that's why if they do somethin to me-like the other day I was all dry and a kid splashed me and I was about ready to go over and tear him apart but then I saw about 3 or 4 big kids watchin him ya know- I thought they might be his brothers so if I started somethin they'd all jump on me...

A lot of tough kids hang around on River Street.

No one up there likes me on Western Ave...when I go up there they throw things at me and yell get outa here..they'd beat me face in.

At night I wouldn't go to Western Ave.--I wouldn't go to Boston.. cuz one of my friends went to Boston by himself and he got jumped.

Everyday from school you see a fight on Pearl Street, there's a big crowd and you look what's in it and it's a fight.

Those colored kids tryin to take over around here-especially this gang of colored kids I know-gun, chains, everything...I don't wanna get killed by em...

I haven't been down to the pool all summer cuz I got beat up down there too..I brought about \$2 and about 4 colored kids were in the water and I saw them bringing people under and they wanted their money, you know, and I tried to avoid them..I went down to the other end of the pool, I got into the pool, they said, it's your turn now and they grabbed me and drug me under and one was sitting on me, one was standing on my head, one was standing on my leg, one was standing on my back-they laughed and said, give me all the money you have, and I said, I don't have any-and the lifeguard came by..and I was holding my breath..

It's kinda bad down here on the Charles River-there's lots of kids down there-kinda like the Dana Park gang..we don't call em anything-too afraid of them-like they push you in the deep water...

SOCIAL DANGERSM.

A couple nights ago a guy was walking at Hoyt Field and got stabbed..they jumped then robbed him..sometimes colored kids start trouble down there..mostly colored kids, colored kids break bottles..

At Hoyt Field the kids they jump you and they carry knives on them and everything..they get into a lotta trouble too..at night they hang in groups in the stands like and they sit up there..

I don't like the kids on Fairmont St...teens and there's not a white one in the bunch..they beat people up, wreck houses..

I hate the street-the part of Fairmont that's near the river-all the kids hang around there and they beat up everybody-they don't let little kids go by-they beat em up...

On one side they're mean and on the other they're not-there are some on Fairmont, some on Pleasant, and up in the project-especially the project..they just pick on everybody when you come by if they know you can't take em...

At WW projects that's o.k. when you're alone if you have some friends there but if you don't they might start jumpin you.

The projects, I don't like them. the kids are mean and if they hit you you don't dare hit them back cuz their parents are there-sometimes if they hit me I just hit em back anyway..

It's not too cool to go over there (Prudential) they steal your bike..

L.

I don't like to go to Harvard Square that hot cuz the kids up there don't like me-when we go there they jump all the kids..

At Harvard Square they jump ya and everything-it didn't happen to me but it happened to my friend once...

Newtowne Court..me and my friend were ridin by there..we were ridin on the sidewalk and we weren't goin too fast and I turned around and I saw some kids coming past chasing after us-they were tryin to get our bikes.. we got away.

Down the Elms-Washington Elms.. we were ridin back and some kids goes, get back here, get back here- and they were throwin bottles, cans, at em an everything-I wouldn't like to go down there..

One time me and my friend went over there-it's in Somerville like-and they thought we were from Medford-you know how Somerville kids always fight with Medford-kid thought I was from Medford and wacked a stick over my back and broke my spokes with a stick and tried to take my bike away..

Me and my friends..rode over to.. South Boston-that's a different area-we rode over to Dudley Station and a whole bunch of kids came after us and wanted our bikes-we just kept on ridin and we rode over the bridge and there was a kid on one of them big sting rays.. Michael jumped on the bus..and me and Alfred rode over the bridge on our bikes..

SOCIAL DANGERSM.

Sometimes when you go down to bicycle road there are bad kids there..sometimes the kids know where you park your bikes and come down and steal them...

I don't like to go down certain streets-sometimes because the kids there are mean to me and take hold of your bike and make you fall down..one time I was goin down Cottage and they tried to get me but I got away.

By Central Square the kids are a lot tougher and all that-they steal bikes-I almost got my bike stolen the other day-I caught the kid who was doing it..I said go ahead, you try to take it-and one of them ran over and picked up a smashed beer can and started swearin at me..I got kind o scared, right-I got a key case in here, right? I opened it up-he said I'm gonna chop you up-and I says go ahead..you throw that and I'll throw this-you know he must have thought there was a knife in it or somethin-so he started runnin down the street and I went in the house and put this little razor in my keycase-I use this sometimes for defense..

It's not a good thing for kids to travel around town cuz it's dangerous-then let em go..ous-better for them to go to new places that aren't dangerous.

It's better to go to familiar places cuz you can tell if there's danger.

Kids, teenagers make a place dangerous.

It's not a good thing for kids to travel around because they can get their heads kicked in-especially at night.

L.

You're always scared you're gonna get jumped if you walk by a gang of kids..

Kids have guns in their back pockets.

There's a lot of kids and there's traffic..kids pull knives out at you and everything..they just scare you but sometimes they cut your hand or somethin..

It's not a good thing for kids to travel around-you might get beat up or somethin..

The worst places to go are places where there are kids I can't beat up that are after me..sometimes a kids after me, but I won't go down there alone if I know the kid can take me or I know a kid can't take me if he has a whole gang of kids with him..these kids if they can't fight their own battles and are just scared, they need weapons and stuff.

It's bad for the kids to go out at night at all.

Trash Park..at night they shouldn't go over there..if they go in there they have to go by everybody and they stop..and beat em up and

let em go..

SOCIAL DANGERSM.

Parents don't want you to go to places where kids are gonna beat you up..or places that are unsafe or that you can get hurt in or somethin...

Parents tell him not to go: railroad tracks, the bridge, Brookline Street, don't hang around the teenagers in Trash Park, don't go down by the corner of Putnam and Brookline-that's where a lot of the teenagers are.

Kids should go to places they know cuz they know the people there and they know what will happen and what won't happen cuz if you go to a place you don't know the kids might beat you up and you don't know what would happen there.

You know in these neighborhoods kids go around beatin ya up and all that-they don't really beat ya-they just act tough-I don't go around there much.

If you beat up one person around here, the kid will get his friends-if a kid gets nine of his friends and you're alone-you gotta watch yourself.

Some little kids when you beat them up they get somebody big and they stick around that big kid for the rest of their life then no one can get after them.

I just don't like the attitude of em.. they're all mean kids..they beat up lots of kids.

I'd like kids to stop pickin on us and everything.

In your own house or a playground next to the police station-that's the only place you're safe-or a place like the Y-the toughs monopolize everything.

SOCIAL DANGERSM.

My father tells me not to go over to Dana so I don't.

When down to Dana Park-sometimes the kids give you trouble-that's why I don't go down there.

I avoid Dana Park cuz of the kids that hang around there..they're teenagers..sometimes they bother me.

The park-the teenagers over there take over everything.

Dana Park is the perfect example of the parks around here-dirty, filthy drunks hang out there every night..they wouldn't let you do anything-they monopolize the whole thing.

At Dana Park if you're there with your friends a kid might come over and start beatin you up unless there's a grown up there.

At Dana everytime someone goes down there they start a fight or something.

The Dana Park gang think they're toughies..they're crazy-they'll do anything-go around beatin up kids-anythin..they bust everybody's windows, ring fire alarms, and all the stuff like property. I don't like to hang around those kids-cuz they might beat you up and jump you..that's why I don't come up here.

The worst place to go is Dana cuz of the kids-they talk tough and try to scare you-they say 'git ova hia' and junk like that-I get scared sometimes, cuz those kids aren't ever alone and I don't hang around with too many friends of that type-I'm not really afraid but if I hurt one of em they might do somethin.

L.

All the big kids hang around-fool around in Dana Park-some kids bother me.

At Dana Park there's two kids over there who's terrorizing everybody includin me..they're both called Indian-they're like savages-they come up to me and Joe and they grabbed us like this-the pressure points, one right here, right like this.. they both got knives and they run around killin everybody.

The Dana Park kids go down there and start trouble..one of the kids just come down and started trouble with another kid and the kid went back.. he gave him a black eye and all the kids jumped on that kid cuz you know he was really killin him and so they killed him back.

At Dana Park they call the kids over there the Dana Park gang.. One kid during a fight picked up the ball and threw it at the kid. He had an operation. One kid was climbing on the monkey bars and fell and broke his arm-they were turning him around and they turned him too fast and he said, cut it out, and he fell-it's all glass there.

At night a lot of kids hang around Williams Street. A lot of the kids who break glass over at Dana Park..they might beat you up-they beat up on a kid once-my brother's friend.

One of the kids..came down Watson Street one day and he said something wise to one of the kids and they all got him.. they did everything to him.

SOCIAL DANGERSM.

It's up by this neighborhood that I don't like it too much-by the church and park-a lot of fresh kids hang around up here..the younger kids do bother me a little-they say get off the street, they don't want anybody on that street. I don't like it alone-if I have some friends with me I'll go.

Sometimes my Parents tell me not to go to town-I just have to stay around Cambridge.

When we first walked up to the Prudential my mother thought it was too far. My father didn't mind about that so she said o.k.

The tracks by Ft. Washington is one of the most dangerous places and a house on Rockwell Street-I heard a lady was murdered there last year..One night somebody took some things from a little shop on River Street near Pleasant and set it on fire.

There was a guy that got shot in the gas station by the Motor Hotel-now they keep a German shepherd in all the gas stations.

I wouldn't go down to the tracks at night. A lot of hobos sleep there-they might grab you or somethin.

I don't like to go to Fenway Park in case somebody would take my money.

L.

Right here is a house where this kid..hangs around-he beats up everybody who walks by. A dog walks by and he kicks it, a kid walks by and he'll punch him up for nothin.

It's about our street right there-they all come out and they come down there and it's really something and the police come down there..my mother asked..me to go down there..to get her a package of cigarettes..but I wouldn't go cuz there was over two hundred kids down there, they stopped the bus and broke two windows and the windshield..and once they mobbed the car... they covered the car, opened the door, threw the driver out, you know..they almost killed the driver, they wrecked up the car..and when my mother got out there and saw all the kids she said, I don't blame you, cuz I wasn't gonna go down there with all those kids hanging around there..it sounds funny for me saying, beating up, beating up-but that's what they're doing.

I have another friend..up by the F & T. He owns the restaurant-the reason my father got so chummy with the owner is because once when he wasn't even married kids came in with their motorcycles and big German crosses and black leather jackets and sunglasses--about six of them-and they were out in the back parkin lot and Joe went back there and said, what are you kids doin out here, and they had him pinned up against the wall. My father went out there and got everybody out and started beatin up everybody and the cops came down there and picked up my father but Joe said not to pick up him because he was helping and that's when we got chummy.

SOCIAL DANGERSM.L.

In Boston the kids'll kill ya.

Don't go to the movies in Boston in the summer: it's too hot and easy to get jumped down there.

In Boston I got jumped a couple of times right down where the shows are-down in the subway..older colored kids, they stole my money both times..there were about 3 of us and 6 of them and they jumped all of us-real tall kids and we couldn't do nothin..I had stitches in my hand at the time-they took three of his and a dollar of mine..that's all they got..I couldn't do nothin cuz I had stitches in my hand.

The kids tried to beat me up just before I came over here.. I don't know what he wanted, he just stopped me and said, oh yeah, when we was comin out of Harvard Square..so I went to a store and bought this and I was comin out and a kid stopped me and said, let me see it, and I started to go cuz there was about 9 colored kids..one big kid..and he said, gimme a dollar, and tore my pocket off gettin all the money and I started to yell for help and they had me and Michael down on the ground punchin us in the kidneys and ribs and everything and they were just beatin us up and this was Park Street and all the people walkin by and everything and nobody does a thing.

My sister was walkin and got beat up-she was goin to Lincoln Park and two quacky teenagers were in the horror house or just waitin in the corner, one blocked my way and one hit me.

SOCIAL DANGERSM.L.

Kids shouldn't travel around town unless they're with an adult cuz otherwise they could get jumped just like at Boston Gardens.

The last time I went to Boston Gardens I was with my friend- my father said, you're gonna get jumped but we didn't-we took our chances and we didn't..big kids when they're drunk or a whole gang of little kids after the game they come outside and wait for kids-they jump ya and then get your money..a guy who was a coach or he was playin basketball like, he got jumped and he got a black eye.

I'd like to go to Boston but I really don't want to-you know, I do, but I don't, I'm kind o scared.

To improve the city I'd have more policemen..and everybody would be good and nice and nobody would wanna beat up anybody.

I usually never go down to Boston..the Boston strangler might get ya.

On Fairmont Street the Boston Strangler was around there.

Kelley Road-that's a real dangerous place like there was a man around and he hid right down in the girl's basement in this school and he chased the girls out..the teachers gave warning-if you see anybody, run, and then tell, and they chased him out of the school.

All sorts of hippies are at Harvard..they take your money and everything.

BLANK PG.

SOCIAL DANGERSM.

There's not too many times when my mother wants me to go down to Ft. Washington..the railroad tracks are next to it-they're right in back of it-the trains go by there and she thinks I'm gonna get hit by the train.

I don't like to go to Ft. Washington and by the trestle. I heard once there was this railroad track there and this boy-they found some little kid-he got beat up by the train.

Worst of all is when you're fishin here and the train comes along, you just have to hold on tight unless ya wanna get thrown off.

I don't go down there (trestle) too often anymore cuz you have to go on the side where the train tracks are-it's too dangerous in case a train came ya know-my father says he doesn't want me out there-but the other side it's like there's a big hole there and you can sit on this thing and go fishin like that..I don't like to go out on that thing-makes me nervous if I'm out on the middle-if a big wind comes it shakes the thing-same when the trains go over-in case ya fell in.

L.

Just last night I was up to Harvard Square..there was all these hippies like..jumping around, doing weird dances.. they were doing a rain dance outside the theater..they were climbing the lamp posts..they were going around us and shaking like that..I wouldn't like to be out on the street..I was glad I was in the bus.

I've had to run away from a few dogs-when I was 4, a few dogs jumped me-big shepherds.

She wouldn't want him to go to Erie Street cuz of the dogs (mother).

The trestle is a bad place to go alone in case you slip and fall off..it isn't really that dangerous but you could hurt yourself.

The Y is in Central Square, but it's too dangerous for me to cross it (Central Square).

I don't wanta go to Central Square a lot..there's a lot of traffic and kids up there.. His mother doesn't want him to go there either-and he says it's the most dangerous place he knows about cuz there's a lot of traffic.

River Street, Memorial Drive, better not try to cross it..but there's an overpass.

It's a big street you have to cross-River Street..it's very dangerous, trucks and everything.

PHYSICAL DANGERS

PHYSICAL DANGERSM.

Sometimes my father says, now Pat you shouldn't go down there- it's too dangerous, when I go fishin- but he doesn't really mind that much.

The train tracks..when ya go fishin and the trains come an they shake so ya might fall in and don't know how to swim.

Sometimes parents don't want kids to have bikes cuz they're too dangerous.

Kids might get hurt on bikes.

Kids get into trouble..they might try to steal somethin-might get hit by a car or somethin like that.

Parents say you shouldn't go past some certain streets.

Memorial Drive and Brookline are dangerous cuz there's a rotary.

Once when I went to Memorial Drive my mother sent my brother walkin behind..Denny got his bike taken away for the month of May because he went up to Central Square.

I don't think I'd like to go down by the square-there's a lot of traffic down by here.

My parents don't like me to go to Mass. Ave. cuz the streets are so big and I might get hit by a car.

Sometimes my parents tell me not to go over to Kemps..sometimes my mother-if we go down there at supertime she says somethin about the 5:00 traffic and all that.

L.

Brookline Street and down by Sidney Street..the traffic is bad-there's lots of trucks and you can get hit by a track and on Brookline Street there's lots of cars that come by.

My mother doesn't want me to go to Putnam Ave. or to Magazine Beach or to Western Ave. cuz there are so many car there.

My mother doesn't want me to cross Magazine unless like I have permission.

PHYSICAL DANGERSM.

Down here on River Street around the fire station sometimes cars come screaming by and they almost go up on the curb.

We don't hang around on Pleasant cuz a lot of cars go down there.

Prospect Street is dangerous- it should be a four-lane street but it's only a lane and a half.

There's a lot of creeps drivin there-like a guy in a big Cadillac drives in the break-down lane-he's not even sposed to be in it and he tries to get you out of it.

Kids might get lost or it might be dangerous if they travel around.

I'd rather travel with adults cuz if you go with kids one may know the way but the others probably don't, so you don't feel too safe cuz he might go the wrong way and we'll be lost.

It's easy to get lost in the areas directly behind someplace which means-like behind Central Square-anyplace where the buildings are of the same kind of quality.

It's easy to get lost in downtown Boston..the buildings are so high and there are people all over the streets-you can't even tell what street you're goin down-you can't recognize.

Fenway is easy to get lost in.. so many alleys and different things.

L.

It's o.k. for kids to travel around if they know how to get there and back safely..unfamiliar places don't reconcile with me cuz too many things can happen in unfamiliar places-I don't know what can happen, but I don't want to find out.

It's not really a good thing for kids to travel around unless they're gonna stay around their neighborhood and not go out-they'll probably get lost and won't know where to go.

All places are easy to get lost in except my neighborhood.

If kids go to unfamiliar places they're not used to and they might get lost and not be able to find anybody to help them.

PHYSICAL DANGERSM.

The easiest place to get lost is Fenway Park-I don't know too much about the other part but I know about the bleachers part and the grandstand.

The easiest place to get lost is Fenway Park..lotta crowds and everything.

At Prudential..if you go down there there are a couple of ways to get back, but say I went down there and forgot how to get back-I'd be followin everything.

The easiest place to get lost is Prudential-right after ye get to Prudential there's all different kinds of buildings they have there.

There's this pond-Essex Pond.. I don't usually go down there.. it's not really that far but it might be easy to get lost.

It's easy to get lost at the trestle cuz that's hard-you can go all the way that way and all the way that way and it's so far.

The easiest place to get lost is West Cambridge..it's a maze of little tiny back streets.

Bicycle Path is hard to follow.

L.

My mother takes me to Fenway Park..they don't really want children there-the police usually kick the kids out if they're fooling around..like if they did it and got picked up I'd be there all alone and I wouldn't know my way back too good.

I know if you get lost up in Boston you'll never find your way.

If they go to places they never been like in Boston they could get lost.

The easiest place to get lost is Boston..when I first moved here I went to Boston to see a movie and I didn't know where I was goin and got lost.

At Boston Garden if you don't know your way back, you're lost and if you're roamin around too much then you can't find your way back.

Behind the Charles River on the other side over there near where the Boston Braves used to play, I went over there once and couldn't find my way until I saw Lindstrom Field.

Once I got lost in Watertown and I never found my way back until somebody found me..I didn't know which way to go.

PHYSICAL DANGERSM.

Sometimes you go down to the pool and your parents think you're gonna drown or somethin-every-time you go there.

My father said, don't go too close to the water cuz it's a bottomless pond (Essex).

I just don't like the river sometimes..you could fall in easy if you fool around down there.

Over the tar pits there's a roof where you jump into the pits and a couple of kids were hoppin the train-one of em fell off the train and hurt himself-when you hop you usually hop em at the end so they don't see you-it's not the guys who run the train fault..a kid told me that a kid lost his foot down there-a train ran over his foot..they told me that somebody got killed down there once too by Ft. Washington.

You can tell a dangerous place by the people-the way they act-and it might look like a slum.

There are some houses down here I'd tear down on Brookline-they're unfit-it's a bad influence on the kids to see all the hippies move in-then when they move out it becomes a hazardous place-kids look at it and think nobody's in it and go in and it's dangerous-it's a fire hazard.

A house where the floor's dangerous or somethin like that-an old house.

One time I went in this old house with my friends and my mother said she didn't ever want me to go in there so I didn't tell her.

L.

Parents sometimes don't want him "cuz they're scared I might drown.."

A quarry is like a volcano-I like to stop there and go back-if you fall you're doomed.

Over here are tires, piles of tires for St. Johnsbury, we go down there and jump on them-that's how one kid busted his leg..he was runnin along this truck and he was runnin and missed it and landed right on his heels like that..we used to go down there a real lot until that happened to his foot.

Nabisco Co. is dangerous cuz the windows are that big and kids try to climb through.

Then you come to my father's building..it's almost done.. they don't like you to go in when the steel is goin up cuz it's too dangerous cuz the steel could fall and there are rivet guns-you can't go in without a helmet on-a guy would be hurt pretty bad cuz those guns shoot through steel.

It's dangerous on Fairmont St.- one day it was raining real hard and a tree fell on a car and smashed it.

PHYSICAL DANGERSM.

There's a garage next to this house and sometimes we go in it by ourselves and explore it-I don't like to go in it alone..some people say nobody's sposed to go in there because there's all windows broken and stuff and it's dangerous.

When the people moved out they broke windows and went into the house and up to the attic and I went into the kitchen with my friends and everything-we found a bottle with stuff in it-I don't know what it was-it smelled so awful, could make you sick..I've been in there two times-not too much..cuz it's kinda scary, especially at night.

Once in awhile I don't like to go down to the tracks at night when it's real dark and the trains come by and you just see the light and it looks awful spooky, the lights comin right at ya, ya know.

A tall buildin that isn't finished yet is a dangerous place.

Kinds of things that make a place dangerous are places that aren't guarded that are all corroded and messed up where little kids can go without being watched.

You have to improve playgrounds and get rid of the glass so kids don't fall down and get cut or scratched.

Rocks, trees are dangerous.. like some of the trees are fallin down and everything or you might be trying to get through and would get your foot stuck between the trees and you might not be able to get it out..and maybe water cuz there might be a place where there's a hole and you might fall in and it might be right up to here probably.

L.

People-(insects or infection) and stuff make a place dangerous.

Fire is the most dangerous thing. I hate it-that day we got burned out at 147 Columbia Street my father warned everybody to get out of the building.. and our upstairs neighbor said her son was in there so my father went in and we had plastic curtains..and they wrapped his whole body and his whole body was burned.

PHYSICAL DANGERSM.

There's a lot over here where
all trees are growing-I'd
probably clear it out and put
a house there..some of it's
poison ivy like.

I like the country-they
don't have as much polluted
air in the country as they
do in the city.

L.

FOOTNOTES

1. See D.E. Berlyne, Conflict, Arousal, and Curiosity (New York and London, 1960); D.E. Berlyne, "The Motivational Significance of Novelty," New Society, May 28, 1964, pp. 23-24; D. Fiske and S. Maddi, Functions of Varied Experience (New York, 1961); and Harry Fowler, Curiosity and Exploratory Behavior (New York, 1965).
2. Jerome S. Bruner, Toward A Theory of Instruction (New York, 1966), pp. 161-162.
3. Donald Appleyard, "Communication" (Chapter III of unpublished manuscript on Ciudad Guayana).
4. Signs/Lights/Boston was a project directed by Stephen Carr. It was carried out under a Federal Urban Beautification Demonstration Grant given by the U.S. Department of Housing and Urban Development to the Boston Redevelopment Authority. The project report will be printed in Fall 1970.
5. National Park Service, Summer in the Parks (Washington, D.C., undated).
6. National Park Service, Environmental Education Programs of the National Park Service (Washington, D.C., 1969).
7. National Park Service, NPS Briefing Book (Washington, D.C., 1966); and Areas Administered by the National Park Service (Washington, D.C., 1969).
8. Vincent V. S. King, Propaganda Campaigns in Communist China (MIT: Center for International Studies, 1966).
9. Sheridan Dauster Speeth, "The Rational Design of Toys", Journal of Creative Behavior, I (Fall 1967) pp. 398-410; and "Toys That Teach" (unpublished article).

SELECTED REFERENCES

Bruner, Jerome S. The Process of Education. New York, 1960.

_____. Toward A Theory of Instruction. New York 1966.

Carr, Stephen and Kevin Lynch. "Where Learning Happens," Daedalus (Fall 1968), pp. 1277-1291.

Dewey, John. Experience and Education. New York, 1938.

Parr, A.E. "Lessons of An Urban Childhood," The American Montessori Society Bulletin, VII, 4 (1969).

_____. "Urbanity and the Urban Scene," Landscape, XVI (Spring 1967).

Rodwin, Lloyd and Michael Southworth. "Needed: A National Urban Service," Educational Technology (To be published September 1970).

BIOGRAPHICAL NOTE

Michael Southworth was born in Kasson, Minnesota in 1941. He received the degrees of Bachelor of Arts (1962) and Bachelor of Architecture (1965) from the University of Minnesota and Master of City Planning (1967) from MIT. Honors and awards include Phi Beta Kappa, Bachelor of Architecture with High Distinction, Bachelor of Arts Magna cum Laude, the American Institute of Architects Silver Medal, and several fellowships and grants. His major professional experience has been as design coordinator for Signs/Lights/Boston (1968-1969) and as designer with the Detroit City Planning Commission (1965). His publications include "The Sonic Environment of Cities" in Environment and Behavior (June 1969) and "Needed: A National Urban Service" (with Lloyd Rodwin) in Educational Technology (September 1970).