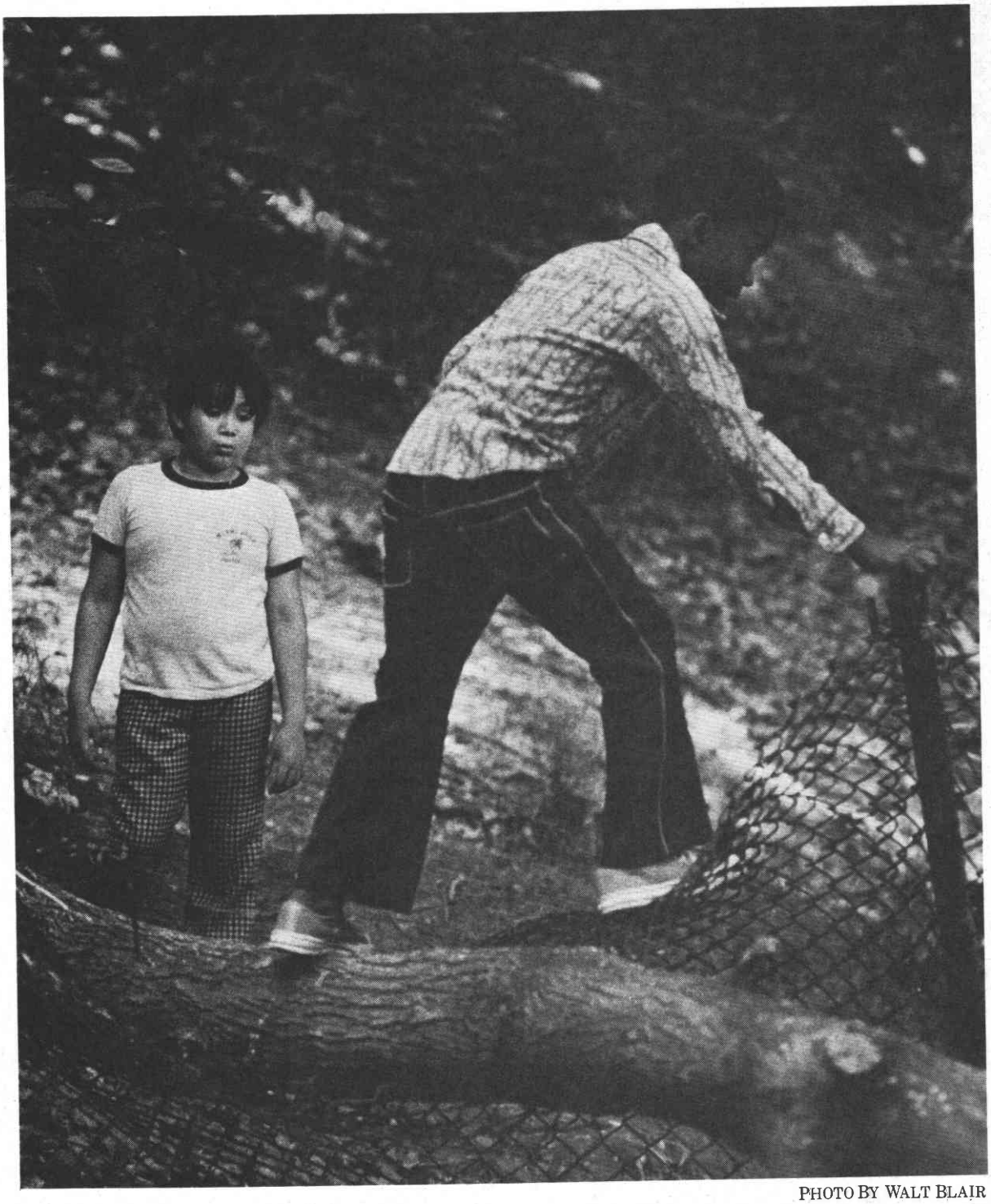

PHOTO BY WALT BLAIR

"If these findings are correct, they suggest that it is the white students who are "deprived", because their preferences are less compatible with the urban environment in which they live" - George L. Peterson

Recreational Preferences of Urban Teenagers: The Influence of Cultural and Environmental Attributes

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ABSTRACT. The study tests the hypothesis that the recreational preferences of urban teenagers differ with age, sex, ethnicity, and measurable attributes of activity and environment. Photos of activities are used to measure preferences, and the photos are scaled for content by a detailed appraisal. The results show that sex and ethnicity modify the preference process, and that choices are sensitive to attributes of the activity and of the environment in which the activity takes place. Several additional propositions are suggested by the data.

THE PROBLEM

THE RESEARCH reported here is an attempt to expose cultural differences in recreation preference and perception among urban teenagers. The specific questions addressed are the following:

1. What are the outdoor recreation preferences and perceptions of various types of urban teenagers?
2. What activity and environmental attributes explain those preferences?
3. What interacting personal characteristics explain interpersonal variation?

Unfortunately, the page limit imposed by the editors does not allow full development of the conceptual framework of which this study is a part. Taken thus out of context, the results are in danger of appearing to be disjointed answers in search of meaningful questions, as is the case with much of the outdoor recreation research to date. Something more has to be said.

Briefly, traditional recreation planning views demand in terms of descriptive measures such as user-days of participation in various kinds of standard activities, perhaps at specific sites. The traditional approach to the supply problem is to attempt, within budget constraints, to accommodate the demand thus described. The dangers and deficiencies of these approaches are many and serious, but we do not have room to expose them here.

Some of us have warned for a long time that wise recreation planning cannot occur without a functional understanding of why people make the choices they do, as well as of the consequences of participation, including personal and societal costs and benefits. To explain why people do what they do is not the same thing as to measure participation in user-days, nor is it the same thing as finding out what fraction of the population is attracted to fishing, what portion is attracted to skiing, etc. Much more is required, and it is the purpose of this paper to present a small part of the overall problem, a part concerned with explanation of preference in terms of 1) attributes of activity and environment, and 2) cultural differences among individuals.

THE HYPOTHESIS

The empirical study is based on the hypothesis that attraction to outdoor recreation activities is a function of measurable attributes of the activity and of the environment in which the activity takes place. It is also based on the hypothesis that personal characteristics such as

sex, ethnicity, and age interact to affect the way attraction responds to activity and environmental attributes. The study is designed to test these hypotheses for urban teenagers and to describe some of the variables and relationships.

STUDY DESIGN AND METHOD

Several thousand color photographs (transparencies) of outdoor recreation activities were collected. A subset of 200 pictures was selected to represent as much diversity as possible with reasonable photographic quality. These 200 photographs were described quantitatively in terms of 78 activity descriptors and 33 environmental variables. The attributes used are listed in Table 1. The descriptions were done judgmentally on semantically described rating scales by a paid panel of 10 highly experienced recreationists. Reliability and internal validity

Table 1.—Attributes used to describe the photos

A. Activity descriptors

1. Danger
2. Skill of participants
3. Amount of training required
4. Active (vs. passive)
5. Degree of social interaction
6. Educational
7. Amount of discomfort
8. Social acceptability
9. Noisiness
10. Physical exertion required
11. Advance planning required
12. Dirtiness (vs. cleanness)
13. Originality
14. "Naughtyness" (vs. niceness)
15. Constructiveness (vs. destructiveness)
16. Degree unregulated (vs. regulated)
17. Time required to get there
18. Time required to do it
19. Opportunity for girl watching
20. Opportunity for boy watching
21. Sexual interaction
22. Invasion or conquest
23. Importance of teamwork
24. Cost of equipment
25. Degree of sensory stimulation
26. Performance for spectators
27. Kind of travel involved
28. Social interaction
29. Opportunity to know people
30. Rate of energy expenditure
31. Amount of work
32. Age specific?
33. Degree of involvement
34. Use of extensions
35. Photographic composition
36. " exposure
37. " focus
38. " color quality
39. " lighting
40. Overall photo quality
41. Center of attention
42. Control
43. Objective achievement
44. Success experience
45. Compete against nature
46. Competition
47. Construction and improvement
48. Destruction or injury
49. Physical self-improvement
50. Family association
51. Possible to do alone
52. Male sexual exhibition
53. Female sexual exhibition
54. Girl watching
55. Boy watching
56. Predatory
57. Edible acquisition
58. Material acquisition
59. Invasion or conquest
60. Formal defense
61. Informal defense
62. Usually performed alone
63. Professional help required
64. Professional help being used
65. Performance
66. Observance of performance
67. Exploration and discovery
68. Special knowledge necessary
69. Special knowledge helpful
70. Specific environment
71. Fee required
72. Manmade facilities
73. Sightseeing
74. Solitude
75. Professional
76. Cross-country travel
77. Meet new people
78. Speed or sensation of it

B. Environmental descriptors

1. Manmade (vs. natural)
2. Crowded (vs. secluded)
3. Enclosed (vs. spacious)
4. Littered or polluted (vs. clean)
5. Uniformity (vs. variety)
6. Accessible (vs. remote)
7. Developed (vs. undeveloped)
8. Flat (vs. mountainous)
9. Unregulated (vs. regulated)
10. Barren (vs. foliated)
11. Planned
12. Colorless
13. Visual complexity
14. Chaotic (vs. ordered)
15. Unique (vs. common)
16. Dangerous
17. Cold
18. Dark
19. Desecrated (vs. conserved)
20. Noisy
21. Hard
22. Smooth (vs. rough)
23. Arid (vs. humid)
24. Contrast
25. Urbanized (vs. wilderness)
26. Altered by man (vs. original)
27. Buildings
28. Run-down (vs. well-kept)
29. Vistas of far places
30. Closed view (vs. open view)
31. Old (vs. modern)
32. Amount of capital investment
33. Reachable by public transportation

were confirmed by analysis of correlations among conceptually related items. Reliabilities were high. For example, the reliability for a set of five environmental attributes describing the extent to which the environment has been altered by man was calculated to be 96 percent. The reliability estimated from a set of four attributes measuring the amount of skill or training needed by the participants in an activity was 94 percent. These were estimated by domain sampling. Numerous parallel-test reliabilities for other attributes ranged from 90 percent to 98 percent.

Using the 200 photographs as observations for each of the 78 activity descriptors and 33 environmental attributes, orthogonal factor analysis was applied to simplify the lists. Two activity models and one environmental model were derived. Space does not permit describing them here. Interested readers are referred to Hanssen *(1971)*.

After quantitative content analysis, the set of photographs was reduced from 200 to 100 to eliminate redundancy and to make the subsequent work more manageable. Table 2 lists the photos.

A sample of 400 high-school students was drawn randomly from the rolls of the Evanston Township High School, with equal numbers for each sex, age (sophomore and junior), and ethnic group (black and white). The students chosen were invited to participate in the study. Particiation was voluntary. Table 3 gives the sample sizes and response rates.

The participating students were shown large illuminated projections of the color slides, and asked to rate on numerical rating scales their answers to two questions:

1. How desirable do you personally find the idea of participation in the activity shown?
2. How much experience have you had participating in the activity shown?

The students were also asked to complete an early version of McKechnie's Environmental Response Inventory *(McKechnie 1970)*. The purpose of this was to assess environmental aspects of personality.

Examination of the correlations among the response to the 100 photographs by the 200 subjects indicates that 1) the individual preference ratings contain information, and 2) an upper limit for reliability of the individual ratings is approximately 65 percent. Thus, a model that attempts to explain the photo preference ratings could not be expected to explain more than 65 percent of the total variance.

SUMMARY OF RESULTS

Analysis of variance of the individual preference ratings reveals the following:

1. Blacks and whites differ significantly in the process by which their preferences are generated.
2. Males and females differ significantly in the process by which their preferences are generated.
3. Sophomores and juniors respond to the photos in similar ways. However, this should not be construed to mean that a wider age difference would not reveal differences.

Thus the preferences of blacks, whites, males, and females for outdoor recreation activities must be explained, apparently, by different processes.

The photographs explain about 35 percent of the total reliable variance when the sample is stratified by sex and ethnic group. This leaves 65 percent of the reliable variation in preference that is unexplained by the photos and is perhaps attributable to interpersonal differences other than sex or ethnic background.

Analysis of the experience ratings reveals differences that are identical in direction but much smaller in degree.

Table 4 shows the correlations among classes over the 100 photos for the average preference and experience ratings. Sex differences are greater for the blacks than for the whites, and ethnic differences seem to be greater for the females than for the males. The greatest differences are across sex *and* ethnicity, and the differences in preference are much greater than the differences in experience, although the pattern of differences is the same. Table 4 also shows the correlations between average preference and average experience over the 100 photos for each class. Although these correlations are all quite low, the correlations for whites are lower than those for blacks, and the correlations for males are lower than those for females. Is this an indication that white males, for example, are more "frustrated" than black females in the satisfaction of their recreation desires? In all cases, the overall weakness of the

Table 2.—Photographs used in the study

1. Technical caving
2. Black kids flying kites
3. Big time track meet
4. Pony ride
5. Kids and dog in back yard
6. Urban ice skating
7. Black kids riding a bicycle
8. Family hike on mountain trail
9. Toy sailboats on park pond
10. Badminton at forested park
11. Kids swimming in a creek
12. Water skiing
13. Kids in sprinkler on front lawn
14. Pedal boat on park pond
15. Pheasant hunting
16. Surfing
17. Child on ocean beach
18. Crowded rec. vehicle camping
19. Slide in urban playground
20. Doubles tennis match
21. Skeet shooting
22. Outdoor concert
23. Soap box derby
24. Horseback riding
25. Bicycling on lakeshore
26. River floating
27. Rowing contest - race
28. Rowboat on remote lake
29. Swimming in surf
30. Motorboating
31. Tour boat at Wisconsin Dells
32. Kids playing football, spectators
33. Touching raccoon at zoo
34. Kids in playlot (black and white)
35. Spectators at big stadium game
36. Kids in sand on street (black)
37. Hippie demonstration in park
38. Pro golf
39. Picnic and campfire - forest preserve
40. Kids wading in rocky creek
41. Scuba diving
42. Slalolm ski racing
43. Casual golf
44. Amateur flying
45. Black fishing - Lincoln Park
46. Bear on road at Yellowstone
47. Sightseeing in cave (guided)
48. Technical cliff climbing
49. Old man feeding pigeons - contact
50. Kids fooling around on corner
51. Folk dance
52. Go-carts
53. Ski-bogganing
54. Public park and fountain - London
55. Family in pond near beach
56. Hot catamaran racing
57. Boy scout camping
58. Stream fishing in forest
59. Forest auto camping
60. Vacant lot shuffleboard
61. Grand Prix auto racing
62. Miniature train ride
63. Roller coaster ride
64. Kids jumping from high dive (flips)
65. Miniature golf
66. Pro baseball
67. Pro football
68. Urban zoo
69. Monkey bars at playground
70. Informal soccer
71. Remote powder skiing
72. Urban concrete beach
73. Family trailer camping
74. Giant slide
75. White-water canoeing
76. House painting
77. Sky diving
78. Kids on mud slide
79. Lying around on street benches
80. High slide at swimming pool
81. Lady sunbathing in back yard
82. Hot motor boat racing
83. Open air ocean beach camping
84. Nontechnical rock climbing
85. Pigeons and people in urban park
86. Horse racing
87. Sandy beach at lake
88. Crowded lake beach
89. Snowmobiling
90. Kids high jumping
91. Sleigh riding
92. Kids playing hockey
93. Mountain tram ride - summer
94. Unique slide in playground (house ruins)
95. Sailfish sailing
96. Track tobogganing
97. Shoveling deep snow
98. High mountain climbing
99. Flowered hills above ocean
100. Large boat sailing

Table 3.—Sample sizes and response rates

Race	Sex	Class	Photo Study: Random sample	Photo Study: Voluntary response		Environmental response inventory
				N	%	
White	Male	Sophomore	50	31	62	
		Junior	50	25	50	37
	Female	Sophomore	50	35	70	
		Junior	50	29	58	46
Black	Male	Sophomore	50	17	34	
		Junior	50	21	42	11
	Female	Sophomore	50	22	44	
		Junior	50	20	40	20
Totals			400	200	50	114

Table 4.—Correlations among sex and ethnic classes over the 100 photos for preference and experiences

	Preference				Experience			
	WM	WF	BM	BF	WM	WF	BM	BF
Preference								
WM	1.00	.75	.64	.36	.10	--	--	
WF	--	1.00	.42	.57	--	.37	--	--
BM	--	--	1.00	.64	--	--	.38	--
BF	--	--	--	1.00	--	--	--	.56
Experience								
WM	--	--	--	--	1.00	.92	.83	.77
WF	--	--	--	--	--	1.00	.77	.78
BM	--	--	--	--	--	--	1.00	.86
BF	--	--	--	--	--	--	--	1.00

correlations indicates that there is considerable disparity between preference and experience.

The relationships between preference and the activity and environmental attributes that describe the photos, and the relationships between experience and the attributes are interesting but too extensive to present here in complete detail. The multiple correlations as well as individual correlations indicate that preference and experience are significantly sensitive to the attributes that have been measured in the photos. However, no sweeping generalizations have emerged, and it is simply not meaningful to propose such things as linear equations at this time. Rather, some illustrative propositions about partial relationships will be presented.

Table 5 shows the correlations with a group of activity variables that clustered together in the factor analysis. These variables seem to measure the degree of "involvement' or "commitment" of the participant in the activity. The correlations show that the males are attracted to activities that have these attributes, while the females tend to be repelled. These tendencies are strongest for the white males and the black females. Experience, on the other hand, is negatively correlated in all cases.

Table 6 shows the correlations of preference and experience with the variables in one of the primary environmental factors. This factor measures the degree of urbanization and human modification of the environment in which the recreation activity takes place. It seems clear that the whites tend to prefer activities that take place in unaltered environments, while the black females are attracted to activities in altered environments. Experience is positively correlated with urbanization and development, and this tendency is strongest for the blacks, especially the black females. Are these preferences affected by differences in experience? It would seem not, because of the similarity in the experience correlations. Something else is going on.

The results of the environmental personality assessment support the environmental correlations. The white students tend to be pastoral and nonurban in their environmental dis-

Table 5.—Correlations of preferences and experience with the attributes in activity factors

Activity attributes	Preference				Experience				Factor loading
	WM	BM	WF	BF	WM	BM	WF	BF	
Skill of participants	+.31	+	–	–.18	–.42	–.43	–.55	–.55	.93
Amount of training required	+.32	+	–	–.19	–.43	–.44	–.57	–.56	.93
Active vs. passive	+.31	+	+	–	–.20	–.22	–.35	–.40	.92
Amount of work involved	+.31	+	–	–	–.25	–.29	–.42	–.47	.92
Degree of physical exertion	+.27	+	–	–	–.23	–.25	–.40	–.44	.91
Success experience	+.21	+	–.22	–.24	–.38	–.37	–.55	–.52	.90
Special knowledge or training required	+.31	+	–	–.25	–.48	–.48	–.59	–.61	.90
Degree of involvement	+.35	+	+	–	–.32	–.32	–.45	–.47	.88
Rate of energy expenditure	+.27	+	+	–	–	–	–.26	–.31	.87
Special knowledge or training helpful	+.35	+	–	–.26	–.40	–.45	–.53	–.56	.87
Degree of discomfort	+.34	+.19	–	–	–.28	–.29	–.47	–.49	.84
Achievement of predetermined objective	+	+	–.30	–.27	–.34	–.33	–.51	–.45	.77
Invasion or conquest	+	+.19	–.24	–	–.24	–.17	–.39	–.29	.75
Competition	+	+	–.21	–	–.20	–.18	–.35	–.26	.72
Professional participants	+	+	–	–	–.33	–.30	–.46	–.34	.70
Performed for spectators	–	+	–.19	+	–.18	–	–.29	–	.67
Informal defense of something	+	+	–.20	–	–.18	–	–.34	–.23	.66
Formal defense of something	+	+.19	–.17	–	–	–	–.23	–	.65
Formal performance	+	+	–	–	–.23	–.17	–.34	–.21	.65

Table 6.—Correlations of preferences and experience with the attributes in environmental factors

Environmental attributes	Preference				Experience				Factor loading
	WM	BM	WF	BF	WM	BM	WF	BF	
Developed vs. undeveloped	−.36	−	−.23	+.31	+.29	+.39	+.26	+.45	.97
Planned vs. unplanned	−.36	+	−.24	+.34	+.32	+.43	+.29	+.48	.96
Altered by man vs. original	−.36	−	−.24	+.29	+.26	+.38	+.23	+.45	.96
Degree of capital investment present	−.36	−	−.23	+.30	+.24	+.37	+.23	+.43	.95
Manmade vs. natural	−.38	−	−.27	+.32	+.29	+.41	+.26	+.48	.94
Urbanized vs. wilderness	−.36	−	−.21	+.27	+.24	+.37	+.22	+.43	.93
Regulated vs. unregulated	−.31	+	−.24	+.33	+.30	+.36	+.25	+.43	.92
Accessible vs. remote	−.39	−	−.17	+.33	+.40	+.46	+.38	+.53	.91
Crowded vs. secluded	−.33	+	−.23	+.38	+.28	+.38	+.22	+.41	.86
Many buildings vs. no buildings	−.37	−	−.22	+.23	+.20	+.32	+.20	+.37	.86
Modern vs. old	−	+	−	+.41	+.32	+.40	+.27	+.39	.86
Reachable by public transportation	−.43	−	−.24	+.26	+.33	+.46	+.31	+.50	.85
desecrated vs. conserved	−.27	+	−.19	+.31	+.18	+.34	+	+.39	.75
Noisy vs. quiet	−	+.30	−	+.37	+	+.30	+	+.26	.74
Enclosed vs. spacious	−.38	−	−.33	+.18	+.33	+.40	+.28	+.42	.71

positions, while the black students tend to be urban and not pastoral. These findings should not be generalized beyond the sample, but within the sample, the environmental personality test supports the validity of the measured responses to and content of the photos. If these findings are correct, they suggest that it is the white students who are most "deprived", because their preferences are less compatible with the urban environment in which they live. Of course, this assumes that other things are equal.

Classification of the photographs according to patterns of differences in preference reveals still more interesting information. Four comparisons were made for each photo: white males vs. white female, white male vs. black male, black male vs. black female, and white female vs. black female. In other words, preference comparisons were made for each photo across ethnicity within sex, and across sex within ethnicity. Each comparison has two possible outcomes. For example, in comparing white males and black males with regard to their average preference for a given photo, either the photo will be more preferred by the white males, or it will be more preferred by the black males. (Because of the sample sizes, the probability of a tie is extremely small, and this outcome, though logically possible, can be ignored.) With two possible outcomes for each of four comparisons, there are sixteen logically possible patterns of difference. There were no photos in four of these categories, and seven of the categories contain 88 percent of all the photos. This clustering of differences into certain patterns strongly indicates that there are systematic and nonrandom sorting processes at work.

Table 7 identifies 88 photos that fell into the seven most common categories. The numbers in the right hand columns are the average preference ratings for the group of students in question. A rating of 5 indicates indifference. Numbers greater than 5 indicate attraction, while numbers less than 5 indicate aversion. The aversions are indicated by parentheses. The column headings WM, BM, WF, BF mean "white male, black male, white female, and black female," respectively. A "+" by the column heading means that the photos in the group were more preferred by that class of students than by any other.

This report has only touched briefly on selected aspects of a rather complicated study that has been going on for several years. Lack of space has prevented elaborate development of the conceptual framework of which the study is a part, but the basic premise is that effective design, management and planning of natural outdoor recreation resources requires an *explanation* of the processes by which people make their choices as well as an exposure of the *consequences*, both perceived and actual, both personal and societal, of participation in various alternative activities. To *explain* attractive is to understand the decision rules people use in making their choices. It is grossly inadequate to deal with descriptive measures of participation levels (e.g., user-days) for categorized activities. The explanatory rules should be formulated in terms of the *attributes* of activity and environ-

Table 7.—Patterns of differences in preference among student groups

Type I: Preferred more by whites and males

		+WM	BM	WF	BF
75	White-water canoeing	8.0	6.7	7.3	(4.2)
56	Hot catamaran racing	7.8	6.2	7.8	5.8
28	Rowboat on remote forested lake	7.5	7.4	6.8	(4.9)
26	River floating - rubber boat - family	7.5	6.8	7.4	5.2
44	Amateur flying	7.5	6.7	6.9	5.4
41	Scuba	7.4	6.6	7.1	5.9
84	Nontechnical rock climbing	7.3	6.2	6.7	(3.7)
53	Ski-bogganing	7.2	6.9	7.2	5.1
8	Family hiking - mountain trail	7.2	6.3	7.0	5.7
98	High mountain climbing	7.1	5.9	6.1	(4.0)
65	Miniature golf	6.9	6.2	6.6	5.0
77	Sky diving	6.8	5.8	6.2	(4.4)
92	Kids playing hockey	6.6	6.9	5.7	(4.6)
47	Sightseeing in cave with guide	6.4	5.6	5.9	(4.4)
27	Rowing contest - team	6.2	6.0	6.0	(4.1)
38	Pro golf	6.1	(4.7)	5.2	(3.2)
43	Casual golf	6.0	5.2	5.2	(3.5)
48	Technical cliff climbing	5.6	(4.2)	(4.9)	(2.4)
1	Technical caving	5.6	(4.0)	(4.6)	(2.9)

Type II: For males, preferred more by blacks. For females, preferred more by whites; for whites, preferred more by females; for blacks, preferred more by males

		WM	BM	WF	BF
30	Motorboating	7.0	7.5	7.3	6.6
14	Pedal boat on park pond	6.4	7.4	7.0	.3
59	Forest auto camping	6.7	7.3	6.9	6.3
73	Family trailer camping	6.9	7.2	7.1	6.8
57	Boy scout camping	6.6	7.2	7.0	6.2
5	Kids and dog in back yard	6.5	6.6	6.9	6.4
68	Urban zoo	6.0	6.6	6.9	6.4
18	Crowded rec. vehicle camping	6.4	6.8	6.7	6.2
46	Bear on road at Yellowstone	6.2	6.5	6.7	5.9
37	Hippy demonstration in park	(4.7)	5.3	5.9	(4.9)
22	Outdoor concert	(4.5)	5.5	5.3	5.1
79	Lying around on benches in street park	(4.9)	5.5	5.5	4.1
85	Pigeons and people in urban park	(4.4)	(4.5)	5.2	(4.4)
50	Kids fooling around on corner	(4.1)	5.1	5.1	(4.5)
76	House painting	(3.6)	(4.5)	(4.3)	(3.3)

Type III: Preferred more by blacks and females

		WM	BM	WF	+BF
63	Roller coaster	6.8	7.9	7.2	8.1
74	Giant slide	7.0	7.9	7.5	8.0
54	Public park and fountain in London	5.7	6.4	6.8	7.8
72	Urban concrete beach	5.9	7.3	7.0	7.6
88	Crowded lake beach	5.5	7.1	6.5	7.5
80	High slide at swimming pool	6.8	7.4	7.3	7.3
4	Pony ride	6.0	6.5	6.9	7.2
9	Toy sailboats on park pond	(4.8)	5.4	6.2	6.5
62	Miniature train ride	(4.5)	5.7	5.5	6.4
13	Kids in sprinkler on front lawn	(4.7)	5.5	6.4	6.4
34	Black and white kids together in play lot	(4.5)	5.4	5.6	6.4
19	Slide in urban playground	(4.4)	(4.6)	5.9	6.3
49	Old man feeding pigeons in the park	(4.8)	(4.8)	5.4	6.2
69	Monkey bars at playground	5.0	5.1	6.0	6.1

Type IV: Preferred more by whites. For whites, preferred more by females; for blacks, preferred more by males

		WM	BM	+WF	BF
29	Swimming in surf	8.0	7.3	8.2	6.7
99	Flowered hills above the ocean	6.8	6.5	8.0	6.4
11	Kids swimming in a creek	7.3	7.3	8.0	7.1
12	Water skiing	7.6	7.5	7.9	7.0
95	Sailfish sailing	7.6	6.7	7.9	5.9
100	Large boat sailing	7.3	6.9	7.9	5.4
83	Open air ocean beach camping	7.3	7.2	7.8	6.3
91	Sleigh riding	7.3	7.0	7.8	6.5
33	Touching a raccoon at the zoo	6.2	6.1	7.4	6.0
97	Shoveling deep snow	6.5	6.2	7.0	5.4
93	Mountain tram ride - summer	6.4	6.4	6.9	5.3

CONTINUED

Table 7.—continued

	Type V: Preferred by whites and females	WM	BM	+WF	BF
25	Bicycling on the lakeshore	8.2	7.6	8.2	7.9
40	Kids wading in a rocky creek	7.1	6.5	8.0	6.9
17	Child at ocean beach	6.9	6.9	8.0	7.3
64	Kids doing acrobatics from high dive	7.2	6.9	7.7	7.0
71	Remote powder skiing	7.1	5.8	7.6	6.0
42	Slalom ski racing	7.0	5.8	7.4	6.0
20	Tennis match - doubles	6.6	5.8	7.0	6.9
16	Surfing	6.6	5.5	6.9	6.2
94	Unique playground slide (house ruins)	6.0	5.6	6.8	6.0
78	Kids on mud slide	5.1	(4.4)	6.0	(4.9)

	Type VI: Preferred by blacks and males	WM	+BM	WF	BF
67	Pro football	6.8	8.3	6.2	6.5
32	Football game - kids and spectators	6.4	8.0	5.8	6.6
52	Riding go-carts	7.4	8.0	7.5	7.4
66	Pro baseball	7.3	7.9	7.1	7.1
3	Track meet - big time	6.4	7.8	7.7	7.7
61	Grand Prix auto racing	6.3	7.2	5.2	6.8
45	Black fishing at Lincoln Park	6.4	7.1	5.9	7.0
21	Skeet shooting	5.3	7.0	(3.5)	(4.4)
23	Soap box derby	6.3	6.9	6.3	6.9
15	Pheasant hunting	(4.3)	6.9	(2.4)	(3.0)

	Type VII: Preferred more by females. For males, preferred more by blacks; for females, preferred more by whites	WM	BM	+WF	BF
39	Picnic and campfire at forest preserve	7.2	7.3	7.9	7.4
24	Horseback riding	7.2	7.2	7.8	7.6
10	Badminton at a forest-rimmed park	6.5	6.9	7.8	7.4
87	Sandy beach at lake	6.6	7.1	7.7	7.2
2	Black kids flying kites	6.1	6.1	7.6	7.2
55	Family in pond at beach	6.2	6.7	7.0	6.7
81	Lady sunbathing in back yard	(4.8)	5.5	6.4	5.9
51	Folk dance	(3.9)	(4.4)	5.7	(4.6)
36	Black kids playing in pile of sand on street	(3.9)	(4.4)	5.3	(4.9)

ment that are the objects of attraction (a la *Lancaster 1966),* the perceived experiential consequences that generate attraction (a la Driver), and the personal needs and motives that underlie the whole process. Even when this is done, the planning framework will not be complete without clarification of the actual consequences, so that it can be determined whether and in what ways participation in given activities is socially productive or whether it is nonproductive consumption of pleasure.

The following propositions are among those supported by the results of this study:

1. For high school students, there are significant differences in the decision "rules" by which males, females, blacks, and whites make their recreation choices.

2. When students are stratified by sex and ethnic background so as to separate these processes, then measurable differences among recreation activities explain a significant portion of the real variations in preference. The unexplained interpersonal difference (about two-thirds of the reliable variance in this study) is perhaps attributable to variables not measured in the study, either of the activity and environment or of the person.

3. Experience is not strongly correlated with preference, but the correlation is somewhat stronger for blacks and females than for whites and males.

4. Preferences can be partially explained in terms of measurable attributes or activity and environment. There are strong sex and ethnic differences in the attractiveness of many attributes. For example,

a. Activities requiring skill, training, physical exertion, etc., tend to be attractive to males, especially white males, and unattractive to females.
b. The degree of urbanization of the environment is negatively related to white preferences and positively related to black female preferences.

c. Experience has a strong positive relationship with the degree of environmental urbanization for all groups. There is much more commonality in experience than in preference.

5. There are types or classes of activities that tend to be preferred by the various sex-ethnic groups. For example:

a. There is a tendency for whites and males to be more attracted than blacks to such activities as white-water canoeing, climbing, and sky diving. Black females tend to find such activities unattractive, while white males tend to find them very attractive.
b. Activities that take place in urban parks, urban beaches, and amusement parks tend to be more attractive to blacks and females than to whites or males.
c. Whites and females tend to be more attracted than blacks or males to bicycling, skiing, tennis, etc.
d. Competitive physical sports such as football, baseball, track, etc., tend to be preferred more by blacks and males than by whites or females.

Although the above propositions and others that the data may suggest are interesting, they should be generalized and used with caution. To say, for example, that the differences observed in this study between blacks and whites at Evanston High School are true for all blacks and whites, or to apply the findings strictly to specific individuals would be irresponsbile.

At this point the discussion ought to turn to interpretation and explanation of the findings. Why do these differences exist? Are they inherent or learned? Should they be recognized and reenforced by the supply process, or is it more desirable to preserve diversity while diffusing racial or sexual differences? Unfortunately, such disccusion must occur elsewhere, for there is not room here. As yet the information is incomplete, and intelligent planning decisions cannot be made until motives, constraints, consequences, and social and cultural influences are better understood. In the meantime, the best rule is, perhaps, free choice and diversity of opportunity. That there are differences in recreational preference among individuals is well known, and has been further emphasized in this study. That these differences are related systematically to sex and race is perplexing but not surprising. What, if anything, should be done about such differences must be left to politics and further research.

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