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ABSTRACT

This report details the activities of a project which sought to use group processes for educating people about their environment. The approach was interdisciplinary and emphasis was placed on the decision-making processes. Wide cross-sections of participants were organized into task forces. Training sessions, tours, and experiments were conducted but the major focus was a "dream" project for the building of a city lake. Conclusions, both positive and negative, are summarized. Recommendations for replications are given for the professional level as well as for college, high school, and grade school. (LS)

SOUTHERN METHODIST UNIVERSITY
DALLAS, TEXAS

INSTITUTE OF URBAN STUDIES



FINAL REPORT

PROJECT NO. SMU 82-78

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# TOWN LAKE ENVIRONMENTAL AWARENESS STUDY

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

Office of Education

November 1972

SOUTHERN METHODIST UNIVERSITY
DALLAS, TEXAS 75222

FINAL REPORT

PROJECT NO. SMU 82-78

GRANT NO. OEG -0-71-4639 (508)

David B. Yarbrough, August, 1971 - April, 1972, PROJECT DIRECTOR
Jo Fay Godbey, April, 1972 - November, 1972, PROJECT DIRECTOR
Institute of Urban and Environmental Studies
Southern Methodist University
Dallas, Texas 75222

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November 1972

U.S. DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
Office of Education

TOWN LAKE ENVIRONMENTAL AWARENESS STUDY

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*Project Director
**Director, Psychological Study
***Chairman of Supervisory Board

## ABSTRACT

The Town Lake Environmental Awareness Study was designed as a community education project funded by the U.S. Office of Education. Its general purpose has been to bring people together to learn more about their environment. More specifically it was designed to show the interrelatedness of the different components of the environment and the effect man's decisions have on these relationships. Primarily the project strove to demonstrate the need for an interdisciplinary approach to decision making.

The first phase of the project brought together people from a broad range of disciplines representing various points of view; such as businessmen, educators, governmental officials, civic workers and students (Group A).

An environmental training session was held, where participants experienced together stimuli designed to heighten their sensory awareness. Such aids as a space maze, guided environmental tours, tactile and auditory experiments were used. Participants were divided into six task forces which met over a four-month period and developed environmental criteria.

A proposed Town Lake to be built for the City of Dallas was used as an environmental model to give a tangible dimension to the study.

In the second phase of the project (Group B) a large group of decision makers from the community were invited to a conference where they studied the environmental criteria developed by the task forces; experienced environmental awareness orientation; and considered new, improved approaches toward making decisions for the environment.

Questionnaires were prepared and submitted to the participants at various times to ascertain their attitudes toward various environmental concepts and their reaction to the learning process. The responses on the questionnaire were analyzed statistically.

The process used in this study may be replicated in other communities. Recommendations for changes are included in the body of this report.

An important factor in the success of this program was the joint sponsorship and active involvement of the academic community, represented by the Institute of Urban and Environmental Studies at Southern Methodist University; the business community, represented by the Greater Dallas Planning Council; and the design community, represented by the Dallas Chapter of the American Institute of Architects.


Jo Fay Goldberg

PROJECT DIRECTOR

FINAL REPORT

Project No. SMU 82-78
Grant No. OEG-0-71-4639 (508)

# TOWN LAKE ENVIRONMENTAL AWARENESS STUDY

PROJECT DIRECTOR
David B. Yarbrough, August, 1971 - April, 1972
Jo Fay Godbey, April, 1972 - November, 1972
Institute of Urban and Environmental Studies
Southern Methodist University
Dallas, Texas

November 1972

The research reported herein was performed pursuant to a grant with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U.S. DEPARTMENT OF
HEALTH, EDUCATION, AND WELFARE

Office of Education

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# TOWN LAKE ENVIRONMENTAL AWARENESS STUDY

## I. OBJECTIVE

It is necessary that citizens understand the relationship between man, the natural and the man-made environment. Citizens must view themselves as part of the environmental process, not separated from it. They must comprehend that no matter how particular a problem, the solution requires the point of view and information-content from various disciplines. As citizens begin to function on these premises, their ability to judge and their decision-making processes will be altered--compartmentalization, fragmentation and the resulting alienation will decrease.

The main goal of the study was to create an educational process which would meet these objectives:

1. Dispel the compartmental thesis
2. Develop an understanding of the relationship of man with the total environment
3. Communicate the necessity for a new and improved learning process of dealing with the environment
4. Affect a more inclusive process of decision making

The design of the study brought together an impressive cross section of talented, well informed participants, (Group A). An introductory conference was held in which a variety of activities and learning experiences were used to heighten the environmental awareness of the participants. Sensory awareness and development techniques were utilized. The activities had the purpose of allowing each participant the opportunity to develop an understanding of himself, his environment, and his relationship to other people, and to increase his appreciation for the contributions of other disciplines as well as understand the necessity for their contributions to the process.

The participants were then assigned to interdisciplinary task forces to research and develop environmental criteria. The activity of the task forces in composing "environmental approach criteria" required adjustments, compromises, and communication of ideas in order to obtain a final, acceptable package of criteria. The participants through personal confrontations and through the development of realistic and justifiable

criteria, developed a recognition of the need for a balanced approach to the environment.

In order to add realism to the development of a new process, an environmental laboratory model in the Dallas locale was used. This model contained the basic ingredients necessary for involving interdisciplinary expertise and a broad target group of citizens from the public and private communities. The model was a proposed lake for Dallas which may be built at some time in the future. It would be located on the edge of the Central Business District and would incorporate part of the Trinity River. Previous to the time of this study, no governmental studies or recommendations had been projected for the lake. However, the concept has been discussed for many years as a possibility for Dallas. The objective was not to develop a solution to Town Lake, but to utilize it for evolving a decision-making process.

At the conclusion of the study a second group of participants (Group B), a cross section of community leaders of Dallas were invited to a one-day conference to experience environmental awareness, to evaluate the environmental criteria, and to participate in interdisciplinary decision making. The purpose of this meeting was to introduce a larger segment of the community to this educational process in the community and to bring it to the attention of the public.

It has been the thesis back of this study that human experience itself provides the most effective and meaningful learning process. The development of and participation in an educational process has been the main objective. The experience is the process. The content of the experience has influenced the participants' awareness of the interrelatedness concept of the environment and their need to understand this concept. Hopefully, the people who experienced the process will go back to the community and operate with a better awareness of the environment and with an increased understanding of the need to utilize the input of people of varied backgrounds and diverse fields of expertise. In addition, and again hopefully, they will inform others of what they have learned. Thereby the effects of these learning experiences will be multiplied.

## II. RESOURCES

### A. Description of Administrative Arrangements

1. Sponsors - The Institute of Urban and Environmental Studies at Southern Methodist University, the Dallas Chapter of the American Institute of Architects and the Greater Dallas Planning Council jointly sponsored this study.

   The Institute of Urban and Environmental Studies served as the administering organization from its offices on the Southern Methodist University campus. The Project Director, Associate Project Director and other persons on the staff maintained offices at the Institute's facilities. The offices of the Dallas Chapter of the American Institute of Architects and of the Greater Dallas Planning Council also contributed their time and efforts.

   Staff members were salaried employees of Southern Methodist University, salaries being funded by the federal grant and from contributions of the Dallas Chapter of the American Institute of Architects and the Greater Dallas Planning Council.

2. Supervisory Board - A Supervisory Board was appointed, consisting of : (See Appendix A, p. 53 for listing of Supervisory Board).

   Executive Director of the Greater Dallas Planning Council

   President of the Dallas Chapter of the American Institute of Architects

   Assistant Director of the Department of Planning and Urban Development

   A member of the Environmental Committee of the Dallas Chapter of the American Institute of Architects

   A leading landscape architect

   A financial executive from Dresser Oil Industries

   A prominent environmentalist

   A psychology professor

The Supervisory Board took an extremely active part in the project, reviewing and helping to make plans, evaluating activities, and participating personally in the activities. Their personal involvement and loyalty to the project entailed many hours of meetings. Meetings were held at least once a month. (See Appendix B, p.57 for Calendar of Activities.)

Supervisory Board members had the responsibility for recommending task force participants and selecting the task force chairmen. They helped to prepare the guidelines for the task forces, and each of them was assigned to a task force as an observer. Projected plans were discussed and approved by the Board. Recommendations for change were made when the project was not moving properly. All questionnaires, printed programs, strategies, and speakers were submitted to the Board for their inspection.

3. Psychological Consultant - Early in the project it became apparent that for purposes of evaluation and consultation a psychologist was needed. Since much of the project dealt with trying to change attitudes of the participants, a method of measuring the changes had to be devised. It was also necessary to determine the psychological effect of the sensory awareness training.

The psychologist served on the Supervisory Board, often counseling with the Board about how testing and sensitizing of the participants should be applied. She had two volunteer psychologists consulting with her on constructing, administering and evaluating test results. She was in charge of designing all questionnaires used. In addition a volunteer statistician worked closely in programming the data for the computer.

4. The Architects - The Dallas Chapter of the American Institute of Architects has been active for a number of years in furnishing volunteer leadership toward creating a better environment for Dallas. Therefore, it was in keeping with this commitment that representatives of the Dallas Chapter of the American Institute of Architects took a responsible part in the sponsorship, leadership and support of the Town Lake Environmental Awareness Study. The chairman of the Supervisory Board was an architect, the chairmen of the Environmental Awareness tours were architects, and the designers and creators of the space maze were primarily architects. Most of the people who worked on the construction of the space maze were architects, and at least one architect served on each task force. In addition, the majority of the tour guides were architects. (See Appendix C, p.65 for Volunteer Hours.)

B. Facilities and Equipment

1. Office Space

The office of the Institute of Urban and Environmental Studies, Southern Methodist University, was used as the base of operations for the study. All plans, mailings and information were disseminated from these headquarters. Planning meetings were held in a conference room at this location. On various occasions in order to accommodate people who were volunteering their help, meetings were held in their offices.

2. Meeting Places of Major Meetings

The three major meetings of the experimental groups required large spaces and accommodations that would enhance environmental awareness. For the first meeting, November 5 and 6, Dallas Market Center Company generously donated the courtyard area of the Trade Mart. This area was four stories in height and effectively accommodated the 70 x 80 ft. space maze that was constructed for this meeting. The courtyard area is beautifully landscaped and provided a most appropriate atmosphere for the environmental conference.

For the second joint meeting of the task forces, facilities were rented at the Dallas Museum of Fine Arts. Again, this facility provided a pleasant and conducive atmosphere in which to discuss the environment. The auditorium was used for the general presentation and film showing, a smaller room accommodated the group discussion, and the gallery area provided small group meeting spaces.

In order to meet the variety of spaces needed for the activities of the third large meeting, the Student Center at Southern Methodist University was used. The assembly room, with its theater-type design suitable for film showing, was utilized for the morning orientation program; the large ballroom for the luncheon activities; and the assembly room and its adjacent rooms for the workshop activity. Southern Methodist University is a centrally-located meeting place, and makes a convenient point for tour departures.

3. Meeting Places of Task Forces

The task force meetings over the duration of time from November to March were held in a variety of places, with the majority of meetings being held at the office facilities of the chairmen. Private homes, the conference room at the Institute of Urban and Environmental Studies, and, in a few instances, public facilities were used.

4. Special Departments and Equipment

KERA-TV Studio and the SMU Fine Arts Department were used for film production and editing.

Special vehicles were sought for the tours. Small capacity buses were chosen to provide a more inter-personal, pleasant and meaningful experience for participants. These buses seating approximately 12 persons were contracted from a small, private, minority-operated transportation company.

Tape recorders were borrowed for the duration of the project from the SMU Business School. Sound and electrical equipment were provided by the Instructional Media Center at SMU. It was necessary to rent some equipment which was not available from these departments.

## III. THE PROCESS

### A. The Research Plan

The basic plan used to demonstrate the learning process was to choose a group of citizens representing a large cross section of disciplines in order to give them environmental awareness training. They were divided into task forces whose main assignment was to prepare environmental criteria, using a local environmental project as a model. Upon their completion of the criteria, a large number of community leaders were invited to a conference where this environmental criteria was presented. These decision makers experienced an environmental awareness program and then, through discussion with one another and task force members, made recommendations for ways to achieve better decisions in dealing with the environment. Throughout the project participants were questioned about their reactions to the process to determine any changes in their attitude as a result of experiencing the process.

### B. Experimental Groups

1. Task Forces - Great care was taken in choosing participants for the task forces. Members of the Supervisory Board were asked to submit a number of names of people in the community considered to be of outstanding ability from various disciplines. Board members were asked to suggest a name for each one of the 27 disciplines listed. (See Appendix E, p.86 for Disciplines Represented by Task Forces.) They also made recommendations as to who the task force chairmen should be. Letters of invitation were sent to 180 prospective participants representing 80 different fields. (See Appendix D, p. 69 for Letters of Invitation to Participants.) One-hundred and fourteen affirmative responses were received. The Project Director divided the participants into six task forces. (See Appendix E, p. for List of Task Force Members.) Each task force represented a cross section of different fields of expertise. (See Appendix E, p.79 for Composition of Task Force by Disciplines.)

2. Decision Makers

The second target group involved in the project were decision makers in the community, who were businessmen, governmental

officials, both appointed and elected, educators and other civic leaders.

C. Activities

1. Major Meetings

(a) The first meeting of task force participants-was held November 5 and 6 in the Trade Mart building, an enormous, impressive and beautiful structure. (See following page for typed reproduction of Conference Program, see Appendix F, p.89 for printed program.) It was most appropriate to accommodate a large space maze and six sensory awareness and learning centers and the 200 people who were involved. The use of this space was contributed by a local business corporation.

Each participant received a packet of materials. An excellent movie describing the importance of the environment in the education of children called "A Child Went Forth" was shown. It was prepared by the American Institute of Architects. A briefing was given by the Director of the Project. The participants, following activity guide cards, went through the six awareness and learning centers and the space maze. (See Appendix F, p. 90 Sample Activity Card.) Each participant was interviewed at the conclusion of his space maze experience and his reactions were documented with a questionnaire and tape recorder. (See Appendix O, p.274 for Space Maze Questionnaire.)

The following day, tours were conducted by Dallas architects to show the background and comparison of different areas of the Dallas environment including the Town Lake site and its immediate environs. Town Lake is the environmental model utilized in this study. The tours were conducted in small passenger buses accommodating 12 persons each. Eighty persons attended Friday night, seventy-three on Saturday, and sixty-five attended both sessions. One hundred

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TOWN LAKE ENVIRONMENTAL AWARENESS STUDY

PROGRAM

November 5 - 6, 1971
Trade Mart -- Dallas, Texas

OBJECTIVE

To bring together representatives of various disciplines to consider the Town Lake project as an environmental model, and in so doing develop a process for approaching environmental problems.

Program - Friday, November 5

5:30 Registration and Questionnaires

6:00 Presiding: Howard Parker, President, Dallas Chapter American Institute of Architects
Keynote Speakers: Willis M. Tate, President
Southern Methodist University
Pat Y. Spillman, Architect, and Author "Design of the City" of Goals for Dallas

6:30 Film: "A Child Went Forth"

7:00 Presentation of the Project and Introduction of Task Force Chairmen
David B. Yarbrough, Project Director
Instructions for Participation in Learning Centers
Jo Fay Godbey, Assistant Project Director
Learning Centers (See Schedule)
Dallas Park Board Open Space Plan for Trinity River
L. B. Houston, Director of Parks, City of Dallas
Irwin Harris, Parks & Recreational Department
Town Lake Feasibility Study by Texas A & M
Garth Hodges, Envirodynamics
Space Maze Ann McGee, Director of Experimental Arts Program, SMU
Environmental Awareness Film by Dallas Chapter, AIA
Trinity River Film KERA TV-13
Auditory Jill Tobias, SMU Student
Tactile Ann McGee and Paul Harris, Art Education, SMU

9:45 Instructions for Saturday

Program - Saturday, November 6

9:00 Coffee - Assembly of Task Forces

9:30 Bus Tour - "The Environment of Dallas"
Tour Guides - Members of Dallas Chapter, AIA
Recorders for Bus Tours and Task Forces - Members of Dallas Chapter, AIA

11:30 Return to Trade Mart

12:00 Lunch

1:00 Bus Tour - "Town Lake Site and Environs"

2:00 General Assembly - Reactions, Discussions, Instructions

2:30 Charge to Task Forces - David B. Yarbrough

3:00 Adjourn

Project Director: David Yarbrough, Architect
Assistant Director: Jo Fay Godbey, Assistant Director, Institute of Urban and Environmental Studies, SMU
Psychological Consultants:
Mary Alice Gordon, Assistant Professor of Psychology, SMU
Earl Weed, Psychologist, Texas Instruments, Inc.
Film: Lou Staples, Film Maker; Mike Ritchey, Script Writer

SPECIAL THANKS TO
Envirodynamics - for design and construction of the Space Maze
Helaine Frost - Design
Ken Siegel - Construction
Tour Design and Coordination - Tom Udstuen, Chairman
George Cole - Trinity River Tour

OUR GRATITUDE TO
Dallas Market Center Company - For the Trade Mart
Willowbrook Distributing Company - For Coors Beer
Play Systems of Dallas - For Gym Slide

FUNDING
The Office of Education under the Environmental Education Act of 1971 and by the three co-sponsoring organizations.

volunteers assisted with the weekend conference serving as tour guides, interviewers, assistants in the learning centers, registrars and speakers on the program.

During all conference activities, participants were kept with their assigned task forces. In this way they had an opportunity to become acquainted with each other. Task force chairmen were introduced to the groups. At the end of the conference plans were made for the future meeting date of each of the task forces. Participants were asked to record their reactions to the conference in order that its effectiveness could be evaluated. (See Appendix O p.275 for Conference Evaluation.) An attitudinal questionnaire to determine the make-up of participants and their attitudes was also completed by participants. (See Appendix O, p.265 Town Lake Environmental Awareness Study Questionnaire for Participants.)

In order to monitor progress of task forces, an architect was assigned as a recorder to each group. These architects recorded at the end of each meeting the results on a group critique sheet. (See Appendix O, p. Group Critique Sheet.) Each task force member was also asked to fill out an individual critique sheet as to his views on task force programs. (See Appendix O, p.276 for for Individual Critique Sheet.)

The criteria report of each task force was submitted by March 1. (See Appendix I, pages 103-131 for Criteria Reports.) The task force members were again asked to aid in the evaluation by filling out their individual response questionnaire to the task force activity. (See Appendix O, p.278 for Individual Response to Task Force Activity.)

(b) The second joint meeting of task forces - was held on March 16, 1972 at the Dallas Fine Arts Museum, (See Appendix L, p.193 for invitation) which began at 4:30 in the afternoon and continued until 10:00 in the evening. A copy of the program may be found on the following page.

TOWN LAKE ENVIRONMENTAL AWARENESS STUDY

March 16, 1972
DALLAS MUSEUM OF FINE ARTS
4:30 P.M.

PROGRAM - BUFFET ROOM

4:30 P.M. Meeting called to order by
Howard C. Parker, Chairman of Supervisory Board, Town Lake Environmental Awareness Study
Introduction of Harwood K. Smith, President of Dallas Chapter American Institute of Architects
Introduction of Special Guests by Carl J. Thomsen, President, Greater Dallas Planning Council

4:45 P.M. Program Orientation by David Yarbrough, Project Director, Town Lake Environmental Awareness Study
- Statement of meeting objectives
- Outline of next phase of study
- Slides and tape presentations--review of November Conference and Task Force Meetings

5:15 P.M. Presentation, "A Systems Approach to Town Lake" by
James C. Schroeder, Director, Department of Planning and Urban Development, City of Dallas, followed by questions from the audience

6:15 P.M. Panel Discussion of Task Force Criteria
Moderator: Bryghte Godbold, Director of Goals for Dallas
Panelists:
Alex Bul, Task Force I Chairman
James Coker, Task Force II Chairman
Harris Kemp, Task Force III Chairman
Dean Mathews, Task Force IV Chairman
Sibyl Hamilton, Task Force V Chairman
Robert Beavers, Task Force VI Chairman

7:00 P.M. Dinner

8:00 P.M. Task Force Discussion Groups--Final Review of Criteria
Discussion Groups by Disciplines: Design - Technology - Economics - Social Science - Behavioral Science - Natural Science

9:00 P.M. General Assembly--Conferees Develop Final Criteria
Chairman: Alex Bul, President of Henry S. Miller Management Corporation

10:00 P.M. Closing Remarks and Adjournment

The purpose of this meeting was to review the criteria which had been prepared by each task force. Prior to the meeting an effort was made by the staff and the task force chairmen to combine all of the various ideas of the six different criteria into one, to eliminate duplication of ideas, but include all others. A copy of this composite criteria was mailed to all the participants prior to the March 16 meeting. (See Appendix K, p.165 for Composite Criteria Statement.) A panel of six of the participants spoke at the meeting about the experiences of their task forces and what points they had thought most significant. The group was then divided according to the broad categories of the behavioral sciences, natural sciences, economics, design, social sciences, and technology in order that people of similar disciplines might evaluate the criteria from the viewpoint of their disciplines. (See Appendix L. p.195 for Discipline Groups for March 16th Meeting.)

(c) The third meeting - was held at the Student Center of Southern Methodist University, May 16, 9:00 a.m. to 4:00 p.m. (See following page for typed reproduction of Conference Program; see Appendix M for printed program.) Its purpose was primarily to bring in a number of decision makers (Group B) in order to have them learn about the process , to receive the environmental awareness training and to acquaint them with the environmental criteria, and to apply it to the proposed Town Lake.

The participants were taken on tours and were shown a movie called "Downtowns for People" produced by the American Institute of Planners. The documentary film of the Town Lake Environmental Awareness Study was shown, preceded by an introductory speech by one of the task force chairmen and followed by a panel discussion of task force participants. In the afternoon discussion groups were held to talk about applying a comprehensive version of task force criteria to the environmental model of Town Lake. Leaders of these groups were task force

TOWN LAKE ENVIRONMENTAL AWARENESS STUDY

Tuesday, May 16, 1972
Student Center, Southern Methodist University
PROGRAM

OBJECTIVE: To bring together representatives of various disciplines to consider the Town Lake project as an environmental model, and in so doing develop a process for approaching environmental problems.

9:00 Registration -- Assembly Room, SMU Student Center

9:15 "Through an Architect's Eyes" -- Tour (Small buses with special guides providing commentary will take you through Dallas enroute to the Town Lake Site.)

10:00 First on-site showing of proposed Town Lake -- Presented by
L. B. Houston, Director of Parks, City of Dallas
William P. Johnson, Jr., Engineer, U.S. Corps of Engineers

10:45 Return to SMU -- Assembly Room
Registration for those not taking tour

11:00 "What the Town Lake Study is all about" -- Howard Parker, AIA
"If We Care Enough" -- Film produced by Town Lake Environmental Awareness Study - Introduction by James H. Coker, Trammell Crow Co.

11:45 "A Joint Effort Toward a Better Environment" -- Panel
Moderator: James H. Coker
Task Force Panelists:
W. J. Dickens, III, Business Mgr., Trinity Improvement Assoc.
Nancy Johnson, Urbanologist, Goals for Dallas
Ben Wallace, Professor of Anthropology, SMU

12:15 Luncheon -- Grand Ballroom

1:00 Introductions and Instructions for Workshops
Jo Fay Godbey, Project Director

1:15 WORKSHOPS ON TOWN LAKE
- Options for Town Lake; such as, open space, recreation, commerce and housing
- Impact of options
- Decision-making

Workshop Leaders --
William Booziotis, AIA, Downing Thomas Architects
Assembly Room
Alex Bul, Henry S. Miller Management Corp. -- Room 101
Garth Leigh, Gifted Students Foundation -- Room 102
Tom Mikulecky, Graduate Program in Public Admin.,
SMU - Senate Chamber
Richard B. Myrick, Myrick & Associates -- Room 103
Randolph R. Ratliff, Community Relations Commission -- Rm. 104
Paul Srere, Biochemistry, Southwestern Medical School
Assembly Room
Earl Weed, Texas Instruments, Inc. -- Senate Chamber

2:45 Refreshment Break -- Assembly Room

3:00 Recommendations from the Workshops -- Assembly Room
Jo Fay Godbey

3:10 Introduction by Carl J. Thomsen, Greater Dallas Planning Council
"As We See It" - Panel
Moderator: Gerald J. McLindon, Dean of the School of
Environmental Design, LSU
Panelists: Four workshop leaders

"How to Reach Better Decisions"
Speaker -- Gerald J. McLindon

4:00 Adjourn

PROJECT DIRECTOR: Jo Fay Godbey, Assistant Director, Institute of Urban and Environmental Studies, SMU

SUPERVISORY BOARD

Howard C. Parker, AIA, Chairman of Supervisory Board
W. Reagan George, AIA
Mary Alice Gordon, Assistant Professor of Psychology, SMU
Weiming Lu, Assistant Director, Department of Planning and Urban Development, City of Dallas
William L. Moore, Executive Director, Greater Dallas Planning Council
Richard B. Myrick, Landscape Architect
Sydney C. Reagan, Director, Institute of Urban and Environmental Studies
Herbert Ryan, Manager of Financial Communications, Dresser Industries
Mary Sapp, Vice President, American Association of University Women
Olive Shapiro, Save Open Space (SOS)

participants. A packet of information material was provided each participant for use in the workshop. (See Appendix M, p. 200 Workshop Material.) Reports were given in a general assembly from each task force chairman of the recommendations from his group. (See Appendix M, p. 217 Recommendations from Workshops.) These reports were moderated and commented upon by Dr. Gerald McLindon of Louisiana State University.

At this meeting the decision makers took part in a similar learning process as the task force members, but for a much shorter duration of time and without the benefit of long term involvement. To further expand our attitudinal evaluation, the participants in this conference were asked to complete one questionnaire. (See Appendix O p. 280 for Town Lake Environmental Awareness Questionnaire.)

2. Minor Meetings

(a) Meetings of and Related to Task Forces:

A meeting of all the task force chairmen was held with the Supervisory Board to give an explanation of the basic purpose of the total study and to orient the leaders to their task force responsibilities. All task force members were given a written statement of their objectives to be achieved within the scope of their meetings. (See Appendix G p. 95 for Task Force Goals.)

Each task force averaged six to seven meetings with a total of 40 task force meetings being held. These meetings continued from November 1971 until March 1972. Task Force chairmen and members contributed a total of over 2,220 hours in conferences, meetings, and planning. (See Appendix H p. 99, Attendance Statistics.) Meetings were held primarily in homes and offices at different times of the day or night.

(b) Environmental Bus Tour for the Public:
Because of the success of the environmental tours as teaching techniques for the invited participants in the Town Lake Environmental Awareness Study, it was decided that an effort should be made to involve the general public in environmental tours.

The press was contacted and the environmental reporter of the Dallas Morning News agreed to prepare a story which would feature the tour as a technique for becoming more aware of one's environment. She described the Town Lake Tour, denoting places which had been featured in these tours previously so that any interested reader could take the tour for himself. The article covered a full page in the first section of the Sunday Dallas News, p. 18, on October 22, 1972. (See Appendix Q p. 300-301.)

On the same page in block form, a Tour sponsored by the Institute of Urban and Environmental Studies was carried. The original tours for the study were planned by architects and the guides for the tours were also architects.

One of the primary conclusions of our study was that the examination and study of the environment should be approached on a multidisciplinary basis, taking into consideration the man-made and natural environment. Therefore, for this tour, we decided to have the architect guide joined by an urbanologist and an ecologist.

On Saturday, November 4, approximately 60 people gathered at the Student Center to take the bus tour. It represented an interesting cross section of people, young and old, men and women, suburbanites and city dwellers, students and businessmen. City buses were chartered for the occasion. There were three tour guides for each bus as planned. This greatly enriched the perspectives of the tour.

After commenting on such features of the city as parks, thoroughfares, strip zoning, and the impact of poverty and the automobile, the buses arrived at the levees of the Trinity River. While looking over the vast lands to be covered by the proposed Town Lake, with the Dallas skyline in the background, a representative of the Dallas Park and Recreation Department and a representative of the U.S. Corps of Engineers spoke to the group on present and future plans relating to the Trinity River development.

When the tour returned to SMU, the participants met with the tour guides to discuss the problems of the city's environment and how the environment might be improved. The tour stimulated such a lively discussion, the meeting lasted for an hour. Interest was expressed in providing similar tours for additional groups in the future.

## IV. DEVELOPMENT, USE AND EVALUATION OF SPECIAL TECHNIQUES, EQUIPMENT AND MATERIALS

### A. Conference Techniques

#### 1. Space Maze

Various devices were employed at the orientation conference in November to heighten the participants' sensory awareness. The main device was a space maze, 70 ft. wide by 80 ft. long varying in height from 4 ft. to 15 ft. which was constructed of corrugated boards secured together by bolts and supported by lumber. This space maze was a series of spaces designed in tunnel-like form to allow participants to pass through and experience a variety of characteristic sizes, shapes, and textures. These spaces consisted of:

Small, secluded room
Large open roofed, circular room
Narrow, low passageway
Large open, angular passageway
Square, all white barren room
Teepee
Room ceilinged with low-hanging fabric
Room lined with carpeting
Passageway lined with reflective mylar

Also included were a large children's slide, water bed and bean bag chair located in these various spaces.

The overall effect of the space maze was to produce an environment in which the individual might explore his reactions to varying environmental effects. The space maze opened out onto a serene Japanese-type garden surrounding a pond which provided a restful atmosphere in which the individual participant was interviewed about his space maze experience. (See Appendix O, p.274 for Space Maze Questionnaire.)

The space maze was constructed almost entirely by volunteer architects. Designed by Helaine Frost and engineered by Ken Siegel, both of Envirodynamics, Incorporated of Dallas, the space maze required over 500 hours to construct, over half of which were contributed by the two aforementioned

architects. The space maze took approximately one month to complete. The Dallas Market Center Company made the donated courtyard space available for the month-long period of construction so that the space maze could be completed on site.

Public interest in the space maze developed; therefore, the week following the November conference the space maze was open to the public for several hours each evening. Among the 100 or more people going through the maze were students, boys and girls organizations, and family and friends of participants.

An unforeseen difficulty arose in the construction of the space maze. In order to meet fire regulations the maze, at a stage very near completion, had to be hurriedly fire-proofed. This added an unexpected expenditure as well as a delay in construction. Ideally these regulations should be investigated prior to any construction of this type and parts should be fireproofed before assembly is started.

The space maze was disassembled and stored free-of-charge, through the courtesy of one of the participants, for possible future use in the study.

The evaluation questionnaires answered by participants indicated that although the maze was a unique, pleasant, experience reminiscent of their childhood the participants did not interpret it as a teaching experience. (See Appendix O. p.253 Evaluation of November Conference.) Because of this and the fact that any future assembly of the maze would require once again a very large space available over a period of time, aa well as large amounts of volunteer labor, the maze was not reconstructed for the May meeting of decision makers. The maze materials were given for use to various art groups, one of which was art students at SMU who constructed a small version of the space maze for the 1972 Annual Women's Symposium.

2. Tactile and Auditory Experiences

Other sensory awareness devices used at the November conferences were the tactile (feeling) and the auditory (sound) experience.

These experiences were developed and conducted by students of Fine Arts, Southern Methodist University. The tactile area consisted of approximately a dozen decorated boxes set on tables. These boxes contained holes for an individual's hand. Each box contained objects or materials (i.e., popcorn, Christmas tree icicles, rocks, etc.) with unique and distinctive textures. Large flat boxes which lay on the floor contained distinctive materials (i.e., pecans, straw, foam rubber, etc.) Participants were guided, with eyes closed and shoes removed, through these boxes in order to sense the feeling of and to identify the materials.

The auditory area consisted of an 8-minute sound tape. With the use of a tape table with eight earphones, eight participants were able to listen to the tape at one time. The sound track contained a series of everyday sounds, some pleasant and some annoying. These sounds started with daybreak, the chirping of birds, the ringing of an alarm clock, and continued on through the day with sounds of running water, crying babies, rock music, airplanes, telephones, chatter, typewriters, automobile traffic, and concluded with the sound of shuffled cards, soothing music and the clock ticking. These sounds evoked from the participants expressions of response and recognition.

To provide a creative experience, a place for composing art slides was set up. The participants could use a wide variety of colors and miniscule materials to put together art slides which were later projected on a screen. This area was also designed and conducted by SMU students.

3. Tours

The Supervisory Board and Staff, after some discussion, decided if tours could be kept small, there would be more opportunity for learning and development of the awareness of participants. Therefore, small buses were selected. A small black-owned

bus company which drives retarded children to school was found to be available and nine of their buses were chartered for each conference.

Great care was taken to plan the tours in order that places seen would have a significant meaning. The architects who guided the tours, consulting with a committee, outlined the tours. Special emphasis was given to parks and greenspace in the city, which in Dallas is particularly scarce. Other environmental factors such as airport noise and sign pollution were described (See Appendix N, p.223 for copies of the tours).

For the aid of the tour guide each place to be seen on the tour was listed on a sheet with suggested commentary and maps were prepared for a navigator who directed the driver.

A dry-run prior to both conferences was held with the architects who were to serve as tour guides. On the trial run as the tour progressed, ideas were exchanged between the various tour guides about how they viewed what they saw. This was beneficial because they learned from each other and consequently a better tour was developed.

The buses which seated 12 were small enough to allow the commentator to speak without a microphone. The small size also allowed comments and cross-conversation between various participants.

Responses on conference evaluation sheets and the individual response to task force activity indicated many participants found the tours extremely beneficial.

From the results of the questionnaires given task force members at the conclusion of their task force activity (See Appendix O, p.278), the sensory awareness devices used in this study were not of enough significant value as learning tools to justify the tremendous amount of manpower necessary to develop them.

B. Task Force Criteria

In order to develop the educational process, that of having the participants learn and understand together about the environment, the task force groups were asked to develop environmental criteria. Three goals were established for the task forces by the Supervisory Board and distributed to each task force member, which were:

1. Develop criteria or standards by which the total environment can be judged and evaluated in terms of overall strengths and weaknesses (qualities). The total components of the environment include the natural, the man-made and man himself.

2. Evaluate the proposed Town Lake against these criteria and describe its major strengths and weaknesses (qualities).

3. What provisions can be developed to insure that these criteria are incorporated in the total design and final product?

A list of resource people was made available to each task force chairman along with the offer to provide any clerical assistance necessary to complete the above goals.

The task forces approached their goals by various methods. One task force relied almost solely on outside resource people to come and discuss with the members the various components of the environment; i.e., water quality, flood plains, open space and recreation, etc. Several task forces used only a few resource people; the others used none at all. The task forces using no resource people relied on the input from the members themselves.

The actual compilation of the criteria of each group was also accomplished in various ways. One task force utilized a Matrix. (See Appendix I, p.113a, Task Force III Criteria.) In others, individual task force members submitted criteria statements before the group's statement was compiled. Committees or teams were utilized by several task forces for the final writing of the criteria. In all cases the task force chairmen took a responsible role in the finalization of the criteria.

After an average of six or seven meetings per task force, these environmental criteria were completed and submitted to the staff (See Appendix I, p. 103, Six Task Force Criteria Reports).

After the first round of meetings, because of the uncertainty of task force members about what the criteria should contain and how long it should be, instructions were sent out to task force chairmen.

It is significant to note that regardless of the method employed in the task forces to develop the criteria and regardless of the method used to write these criteria, the six criteria reports are basically similar in context and parallel each other in form with the main difference being in the amount of emphasis placed on each component of the environment.

Furthermore, by careful examination of each of the six criteria statements, evidence shows that the participants through the development of their criteria met the four objectives of this study which were (1) dispel the compartmental thesis, (2) develop an understanding of the interrelatedness of man with the total environment, (3) communicate the necessity for a new and improved learning process of dealing with the environment, (4) affect a more inclusive process of decision making. Developing these criteria proved to be a very valuable tool in accomplishing these objectives.

Copies of the six task force reports were sent to all task force members for their individual study and evaluation.

A March 16 meeting was held to give all the task force members the opportunity to evaluate and approve one final criteria statement which would be representative of all six task forces.

In order to eliminate duplications and to organize the material in the six reports, the task force chairmen met to make a composite of the six reports for use at the meetings. (See Appendix K, p. 165 , Composite Report of Task Force Criteria.) Corrections and additions were made to this composite report by the task force members at the meeting; thereby, a consensus on one final criteria statement was reached.

The criteria were further condensed into two and one-half typewritten pages by the staff to be presented to the community decision makers at the May 16 meeting (See Appendix M, p.208 A Summary of Task Force's Environmental Criteria). All of the main points were listed in the report. The condensed version of the criteria was necessary (it was decided that it needed to be shortened) in order that it could be quickly read and absorbed by Group B at the Conference.

During the course of the project a number of Task Force members made individual written contributions demonstrating the extent of interest and involvement on their part. (See Appendix J p.135 .)

C. Environmental Model

The environmental model chosen for this study was the proposed Town Lake for the City of Dallas which would be built near the Central Business District, incorporating water from the Trinity River. The Town Lake model was not utilized to provide an actual plan for the lake but to provide a model to evolve a decision-making process.

For purposes of the record, certain aids were used to introduce the concept of Town Lake to the participants.

At the first environmental awareness conference the following devices were used:

1. A film on famous rivers and lake fronts in the United States and in other countries. (Courtesy of Public Education Station, KERA.)

2. A slide presentation of the proposed Trinity River greenbelt by the Director and Assistant Director of the Park Department.

3. A slide presentation on a study by Texas A & M of some plans projected for Town Lake, prepared by Texas A & M architectural students.

4. Tours of the projected Town Lake site.

D. Evaluation Techniques

1. Evaluation by Psychologist (See Appendix O for the detailed copy of the Psychologist's Report and Sample Questionnaires.)

Several evaluative techniques were developed to (1) ascertain the attitudes concerning various environmental concepts; individuals who participated in developing environmental criteria in the task forces (i.e., Group A members) at various times during this educational process and (2) measure the attitudes toward environmental situations of a group of decision-makers (or community leaders) who participated in the May 16, 1972 conference (i.e., Group B members). The various techniques developed are listed and briefly discussed below with indications of major findings.

In the discussion of the results obtained from the evaluative techniques the terms "significant" or "significantly" refer to statistical significance. Statistical significance in this report means that the obtained results would have occurred by chance less than five times out of 100 (i.e., $p < .05$). When statistically significant results are obtained a researcher is more confident that the result obtained is due to a "real" effect and not due to chance alone.

(a) Town Lake Environmental Awareness Study Questionnaires for Groups A and B

The first questionnaire was developed to (a) obtain demographical information concerning each participant in Group A, (b) ascertain the attitudes of Group A members before and after participating in the educational process to test whether any statistically significant changes occurred in attitudes. The attitudes measured included those toward concepts concerning the environment, community environmental planning in Dallas, the overall excellence of Dallas, concerns about the environment and specified cities, how they would distribute additional funds for a large community project, and changing the environment. In addition an indication was obtained of how knowledgeable about their environment most people are judged to be and familiarity with the proposed Town Lake project.

Eighty-eight participants (80 males and 8 females) completed and returned the questionnaire. The demographical information obtained from these participants (in Group A) is shown in Table 1.

A condensed one-page version of the Group A questionnaire was administered to Group B participants on May 16, 1972. The information from Group B participants is also included in Table 1.

Reference to Table 1 indicates the average respondent in Group A was male, married, had 2.9 children, had completed 17.6 years of education, and was 42.9 years of age. The average Group B participant was male, married, had 2.7 children and had completed 17.1 years of education. This comparison of the demographic data for Groups A and B shows that the participants were similar on these variables.

Further comparisons of the answers of Groups A and B indicated that the participants in these groups rated Dallas between "average" and "above average" on "overall excellence." When asked to indicate how much impact on community planning he had had in the past, has now, and expects to have in the future, the "average" participant in both groups indicated he had had small impact in the past, has slightly more impact now, and expects in the future to have greater impact.

The participants in Groups A and B differed significantly according to the proportion of individuals in each occupational category. Group B had more from the general business and from environmental and urban affairs categories. It is interesting to refer to the percentage columns in Table 1 because one can quickly note where large differences occur between Groups A and B. For example, the distribution of children in each category is significantly different between Group A and Group B. Group B's children tended to be older. Seventy-five percent of Group B's children were 16 years of age or older while only forty-eight percent were in that category in Group A.

Table 1

Demographic Information for Group A and Group B

| | Group A | | Group B | |
|---|---|---|---|---|
| | Participants | Percent Of Sample Population | Participants 5/16/72 | Percent Of Total |
| Artists & Architects | 20 | 23% | 3 | 7% |
| General Business | 12 | 14% | 20 | 44% |
| Engineers | 22 | 25% | 1 | 2% |
| Environmentalists Urban Planners | 4 | 4% | 11 | 24% |
| MD's & Psychiatrists | 3 | 3% | 2 | 4% |
| Physical Scientists | 7 | 8% | 1 | 2% |
| Social Scientists | 15 | 17% | 8 | 17% |
| Students | 5 | 6% | 0 | 0 |
| TOTAL | 88 | 100% | 46 | 100% |
| Average number of years of education | 17.6 | | 17.1 | |
| Average age in years | 42.9 | | | |
| Married | 72 | 82% | 40 | 87% |
| Single | 11 | 13% | 4 | 9% |
| Divorced | 3 | 3% | 0 | 0 |
| Separated | 0 | 0 | | |
| Widowed | 2 | 2% | 2 | 4% |
| Number indicated having children | 69 | 78% | 32 | 70% |
| Average number of children per participant | 2.9 | | 2.7 | |
| Number of children between 0-5 years | 21 | 11% | 4 | 4.5% |
| Number of children between 6-10 years | 40 | 20% | 4 | 4.5% |
| Number of children between 11-15 years | 42 | 21% | 14 | 16% |
| Number of children between 16-20 years | 37 | 18% | 23 | 26% |
| Number of children 21 years and over | 61 | 30% | 43 | 49% |
| TOTAL number of children | 201 | | 88 | |

When they were asked to indicate how Dallas has done in various areas of community environmental planning a seven point rating scale was used with 7 representing the highest score. In the area of economic planning Dallas was rated as having done better than in other areas with ratings around 4.7. Dallas was considered to have done poorest in the area of transportation with a rating of 2.9. The participants from both groups considered an average job of community planning for the environment had been accomplished in the area of recreation. In the areas of aesthetics, human needs, and nature, Dallas was rated in the "below average" category.

Both groups rated most people as being relatively uninformed about the environment with a rating of 2.7.

The fact that two different groups of Dallas community leaders agreed so closely in their ratings concerning community planning and overall excellence suggests that their perceptions about Dallas are similar. It is important to realize that when populations are highly homogeneous in basic characteristics there will be fewer opportunities for attitude change to occur.

Discussion of "before and "after" data obtained from Group A Participants

Group A participants completed the Town Lake Environmental Questionnaire before participating in the task forces and it was administered again after they had completed their task force involvement and participation in developing their environmental criteria. Comparisons were made between the answers given each time to see if there were any significant changes. Since Town Lake was used as the model for this study it is not surprising to find that after their task force participation, Group A members indicated they were more familiar with Town Lake. In November the average "or mean" rating was 3.5 which is slightly "below average" on a scale from 1 to 7. After participation in the task forces the mean rating of 5.8 was definitely "above average." This difference was statistically significant. The only other significantly different results were that participants rated the "environment" significantly more "hopeful" than "hopeless" and more "changing" than "static" after the task force interaction.

(b) Space Maze Questionnaire

This questionnaire was developed to provide immediate information concerning the feelings of each participant as he came out of the space maze and an indication of the spaces he liked best and least. Open-ended questions were used to allow the respondent more freedom to express his feelings at that moment. Sixty-nine participants completed the space maze evaluation sheet as they came out of the space maze. When the responses were considered as a total group the feelings reported by the Group A participants were significantly more favorable than unfavorable. Significantly more people indicated that they would like to go through the space maze again.

(c) Conference Evaluation Sheet

This sheet was administered at the end of the orientation conference on November 6, 1971. The reason for administering this sheet were to learn how Group A members felt about their commitment to participate in task forces. Sixty-three Group A participants completed this sheet. Fifty respondents indicated a positive feeling about their "commitment to work on the task force to develop environmental criteria." Six individuals felt "ok" or neutral" while seven felt negative or "confused" about their commitment.

(d) Group and Individual Critique Sheets

These sheets were developed to be completed by the task force participants and the task force recorder at the end of each task force meeting. The purpose was to provide information to the project director concerning how the participants perceived the progress of their group toward their goals. Unfortunately the sheets began to be a "chore" and were answered in a perfunctory manner. Consequently no statistical calculations could be computed.

(d) Individual Responses to Task Force Activity Questionnaire

This questionnaire was prepared to determine how the participants felt about this educational process. It was administered after the task forces had completed their environmental criteria. Fifty-one Group A members completed the questionnaire.

Significantly more of the task force members were satisfied or very satisfied with their completed criteria.

Significantly more participants felt positive than negative about their task force's progress and accomplishment. All participants except one indicated they believed the approach of learning from fellow task members was of "some value" or "great value."

Participants indicated they participated in the development of their task force's criteria was average or higher.

Eighty percent of the respondents indicated that at least half their participation reflected their professional expertise. Ninety-four percent indicated their personal values and experiences were reflected in their participation. Further analysis indicated that the participants felt significantly more of their personal values and experiences were reflected in their participation rather than their professional expertise.

Eighty-six percent of the respondents talked to people who were not task force members about the project between their own task force meetings. Respondents were asked to indicate which of the activities of the November conference had influenced them when developing environmental criteria. The Dallas Town Lake tour were checked significantly more frequently than would be expected by chance. The tactile and auditory experiences were checked significantly fewer times. The film, the A & M study, the Springer Report and the space maze were checked approximately the number of times one might expect by chance.

2. Evaluation by Architects (See Appendix S for individual architects' evaluations)

The Town Lake Environmental Awareness Study was structured to provide an architect in each task force to participate throughout the whole Study. These architects were asked to give their candid evaluation of the Study. The following composite of the replies of six architects was prepared by Howard Parker, A.I.A., Chairman of the Supervisory Board.

Summary of the Evaluation of Individual Architects on the Effectiveness of the Town Lake Environmental Awareness Study

(a) Did participants experience a change in attitude by using the interdisciplinary approach?

All of the architects questioned agreed that the introduction of various disciplines into one working group caused participants to respect and understand the complexity of our environment and this, in turn, affected a change in the attitude of most participants.

(b) Are there other techniques which could have been used effectively?

No specific techniques were suggested.

(c) Was the program well-designed?

Opinion was divided. One architect stated that the project was "well designed but poorly detailed." The main problem was identifying specific direction.

(d) Was it practical?

On the whole, it was interpreted to be a good environmental learning experience. However, criticism was directed at the lack of specific goals to work toward, the tiem-consuming nature of the project and the fact that the program did not reach the top Dallas decision makers. One comment was "No, but it could be practical if better guidelines were established and a defined result were the end product."

(e) What projected application do they see for the process?

The following response from one of the architects is a good summary: "The process is valuable in educating all people--not only decision makers--in the conservation and realization of our resources. The effort must be continued."

In general the process used has great potential. However, the process must be reviewed, refined and improved. The interdisciplinary approach is extremely valuable, but this particular program was too demanding of personal time for a volunteer program, and was especially demanding for the architects. Because of their sponsorship the architects carried a great deal of responsibility for the program in which they attended numerous meetings, arranged tours, constructed the space maze, etc. The following quotations from participating architects are significant:

"If properly programmed, the process could produce significant effects on civic developments that affect many people's lives."

"It provides a basis and an experience for an improved program to involve the community in environmental municipal decisions."

## V. INFORMATION DISTRIBUTION

### A. Visual Documentation

1. Film

For the purpose of documenting the process, a color film was made. The film shows the participants at the initial environmental conference experiencing some of the sensory development training. It also shows them examining the site of the proposed Town Lake on their environmental tours. Other parts of the film include members of a task force in one of their meetings and records some of their discussions. At the closing of the film, selected participants carry on a discussion describing the process and their reaction to it. The film is 15 minutes long. It was used twice for purposes of orientation, once to the second meeting of Group A on March 16 which was presented to a group of decision makers at the spring conference. The second showing was to Group B on May 15. Copies of the film were made available to the Office of Education. (See section on facilities for further information on film.)

2. Slides

Four-hundred slides and 150 black and white pictures were taken of the activities. These slides have been sorted and selected for use in presentations on the Town Lake Environmental Awareness Study and are available.

### B. Media Coverage

The news media have been very responsive and cooperative with our efforts to communicate our program to the community. The Study has had coverage in organizational bulletins, both Dallas newspapers, and on several television stations before, during and after our conference. Individual news articles, and television presentations are listed below. The corresponding pages in the Appendix on which they can be found are also listed.

1. Dallas Morning News, Friday, July 30, 1971--Announcement of Award of Grant (Appendix Q, page 289)

2. Greater Dallas Planning Council Newsletter, Summer '71 (sent to 600 members)--Announcement of Awarding of Grant (Appendix Q, page 290)

3. WFAA Channel 8 TV, August 1, 1971, Project Director, David Yarbrough, interviewed on 6 p.m. and 10 p.m. news by commentator, Phil Reynolds.

4. Dallas Times Herald, Sunday, August 15, 1971, "Town Lake Project Slated to Serve as Model for Environmental Study" (Appendix Q, page 291)

5. Dallas Times Herald, Monday, September 27, 1971, "What Do You Do About a City?" --interview of Project Director, a description of conference and an overall purpose of project. (Appendix Q, page 292 )

6. Dallas Times Herald, Friday, November 5, 1971, "Space Maze Trip to Open Environmental Conference"--conference coverage (Appendix Q, page 293)

7. Dallas Times Herald, Sunday, November 7, 1971 "Environmentalists Climb Levees to Visualize Tomorrow's Trinity"--conference coverage (Appendix Q, page 293)

8. Dallas Morning News, Monday, November 8, 1971 "Dallasites Studying Ecology"--conference coverage (Appendix Q, page 294)

9. KERA-TV Channel 13, November 10, 1971, a 5-minute film report on the conference on Newsroom at 6 p.m. and 10:30 p.m.

10. Dallas Times Herald, Sunday, March 19, 1972 "Environmental Probers Discover New Concepts,"--conference coverage (Appendix Q, page 295)

11. Dallas Morning News, Monday, March 20, 1972 "Bifocal Vision Asked for Planning"--conference coverage (Appendix Q, page 296)

12. The Mustang, Alumni Magazine of Southern Methodist University, March-April issue, 1972, page 27. "Environmental Project." (Appendix Q, page 299)

13. KERA-TV Channel 13, May 17, 1972, 6:30 and 10:30 p.m., 10-minute film report on May 16 conference by Patsy Swank, Environmental Editor. (Appendix Q, page 297 )

C. Speeches

Talks and speeches have been made by personnel in which references have been made to the Town Lake Environmental Awareness Study. These are as follows:

Talks by David Yarbrough, first Project Director:

1. Dallas County Society of Military Engineers
2. Dallas Psychological Association
3. Dallas Chapter of Zero Population--STOP
4. Gifted Students Foundation at Southern Methodist University
5. Agency for International Development, the SMU Seminar on Community Leadership for Foreign Students
6. Sunday Forum KIXL Radio, August 8, 1971

Talks by Jo Fay Godbey, second Project Director:

7. Kappa Kappa Gamma Society Alumni Group, January 11, 1972
8. Save Open Space, Dallas Environmental Organization, May 11, 1972
9. Preston Hollow Presbyterian Adult Church School, July 16, 1972

Talks by Dr. Mary Alice Gordon, Psychological Consultant:

10. The North Texas Chapter of American Statistical Association with Spouses, April 27, 1972

11. Preston Hollow Presbyterian Adult Church School, July 7, 1972

Talk by Mary Sapp, Coordinating Secretary:

12. Dallas Young Adult Institution, June 18, 1972

Talk by Howard Parker, Chairman of Supervisory Board:

13. KBIF-TV Channel 33, May 30, 1972, 11:00 a.m. "Interview on Town Lake Environmental Awareness Study."

D. Model Workshop of Town Lake Environmental Awareness Study

Graduate Business School Seminar (Directed by Douglas G. Pearson, Assistant Prof. for Organizational Behavior & Administration, SMU) June 28, 1972, 1 - 4 p.m. (See Appendix R, page 293, for resultant criteria)

## VI. CONCLUSIONS: (Positive)

### A. Educational Value of the Process to the Participant

1. Interdisciplinary Value of Task Forces
The most valuable part of the process was the introduction of representatives from various disciplines, their exposure to each other, and the consequent respect and appreciation which developed for other people's opinions. The opportunity for diverse kinds of people to meet with others on an equal basis and exchange viewpoints is rare. Awareness of this value of this opportunity is reflected in the participant's criteria stating the necessity for involving all the people in the community decision-making process.

2. Increased Understanding and Cooperation Among Individuals
Given the opportunity to work together, the participants learned about each other and about themselves. Individuals were able to break down stereotyped concepts of others. This breakdown did not always come easily but is essential to cooperation. The participants reflected the value of this experience through their comments on the task force meeting critique sheets, their final evaluation of task force activity and the film dialogue.

3. Environmental Understanding
There is a deep interest on the part of thinking, educated people in the present quality of life and our future environment. The participants shared similar concerns and needs on the environment. This was strongly exemplified by the similarity in the six different task force criteria. Although each participant brought to the study different backgrounds and information, a consensus was reached as to the criteria necessary to meet environmental needs. The criteria reflected the participant's understanding of the complexity of the environment, the relationship of all its components (man, man-made and natural) and the need to consider all these components. These were the goals the study was designed to demonstrate.

4. Short-Range Effects

The study revealed that people are willing to give a great deal of their personal time to a project they deem worthwhile. The participants indicated on their questionnaires that the learning process was of great value (Appendix O, p.255). The fact that the majority of participants spoke about their task force experiences to people outside the study as was revealed in the questionnaires indicates their involvement.

5. Long-Range Effects

It is important to emphasize that the long-range effect of the task force activity is continuing. Its ultimate influence is expected to continue in many directions which cannot be predicted at present. Such a study, through the community involvement of its participants, can have significant impact on the community and its decision-making process. Some are listed below:

(a) The firm of one participant has provided a new symbol for the City of Dallas. The symbol includes a green tree in the center, expressing Dallasites' concern for the environment (see Appendix P, p.283 ).

(b) The firm of another participant is providing a creative center for Dallas artists in an environmentally unique setting (see Appendix P, p.284). Art, diversity and variety of activities were included in the environmental criteria.

(c) Inquiries have been received as to whether the environmental criteria from the task forces will be provided to the governmental department concerned with green spaces surrounding the Trinity River in Dallas.

(d) Two professors at the Southern Methodist University Graduate School of Business Administration were so impressed with the educational process used at the May 16th meeting that they designed a three hour, mini task-force approach for a graduate seminar. After a brief orientation concerning this Town Lake Environmental Awareness Study, the graduate students divided into task forces and prepared environmental criteria (see Appendix R, p.293).

(e) Save Open Space, a citizen's environmental organization, six of whose members were involved in this study, are utilizing one of the tools of the study. Save Open Space has planned an environmental creek tour in small vehicles with tour guides and resource people with the purpose of educating its membership on the characteristics and uses of flood plains.

(f) One of the task force members, the Director of the Community Education Department of Dallas Public Library, is using some of the Town Lake Environmental Awareness concepts in an October conference in Tyler, which is being funded under a grant from the Department of Health, Education and Welfare.

B. Organizational Aspects of the Study

1. The sponsorship of this project by the Institute of Urban and Environmental Studies, the American Institute of Architects and the Greater Dallas Planning Council gave the project status and credibility. The combination of the university with the architects and the businessmen was unique in its appeal and its effectiveness, and in developing community interest and support.

2. The system used and the proficiency of its administration gave participants confidence in the program.

3. The artistic quality of the program was greatly enhanced by the involvement of the architects.

4. The Supervisory Board on this project was an effective group. Its interdisciplinary composition contributed greatly to the success and design of the project. In crisis situations which occurred, the Supervisory Board worked as an efficient and highly professional group. It is recommended that this kind of a board be used in other projects.

5. People are willing to give a great deal of their personal time to a project they deem worthwhile. The success of this study is directly attributable to the tremendous amount of volunteer time that was given.

6. A well-planned orientation weekend to start off an environmental program (or any community-concerned project) is highly useful. It introduces the participants to each other and gives them an opportunity to gain knowledge about the proposed project and obtain background information to start their planning process and begin working together as a team.

   The most effective environmental awareness developmental tools in the opinion of the participants, were the environmental tours. Events planned for such an orientation program should include, if at all possible, these on-site visits or tours. Transportation vehicles to accommodate small groups are recommended. This enables participants to talk intimately and exchange views. It is wise to have a trained, knowledgeable guide in each vehicle who can discuss clearly and interestingly what is being seen and draw out comments and questions from the participants.

   One important factor in the success of the awareness weekend for the present project was the "dry-run" held before the weekend events. Tours were carefully planned and rehearsed. Guides, as well as the Supervisory Board members, went on the preliminary tours. Useful and needed changes were made before the actual meeting.

   "Dress rehearsal" night pointed out the impossibility of interviewing each person coming out of the space maze. The plan was changed to give each participant an evaluation sheet as he came out of the maze.

7. The questionnaires used throughout the project were valuable in indicating attitudes, progress and providing indicators as to the directions of the study.

8. The selection of the proposed Town Lake as an environmental model was good because it demonstrated the complexity of the environment, the interdependence of its different parts and the need for coordinated planning to produce an environmentally sound project.

## VII. CONCLUSIONS: (Negative)

### A. Goals of Study

1. A few of the participants never understood the purpose of the project. Some of them dropped out immediately. At times there was a difference of opinion as to whether a general criteria was to be developed or whether a Town Lake criteria only should be developed.

   In the beginning of the study very few guidelines were given because the director thought that if groups found their own way, it would be a better learning process. This resulted in task forces using their freedom to go in unanticipated directions. Later it became necessary to give more specific directions. This lack of structure contributed to the confusion about the goals by the task force members. Objectives or goals of any project should be clear, concise and realistic for the time limitations allowed.

2. A conflict arose between the first director and the Supervisory Board over the director's desire to administer sensitivity training to the participants. The Board decided it would be inappropriate to arbitrarily impose sensitivity training on volunteers who had not previously had an opportunity to express a willingness to participate. It was realized there was not enough time to provide a deeply-meaningful sensitivity training experience in one brief orientation weekend.

3. The Town Lake environmental model had its drawbacks. Because it is only a projected dream in the minds of the people of Dallas it might have been desirable to use a more tangible project as a model. Participants often feel their time is well invested if they are working toward some goal that may result in positive action in the future.

   Town Lake was also a difficult subject because it involved enormous dimensions, such as a polluted river, divided land ownership, the proposed Trinity

River Canal, varied governmental entities, existing freeways, etc. However, the point was made that eventually decisions would have to be made in spite of all these obstacles.

4. It takes a long period of time and in-depth experiences to change people's attitudes. We did not have enough time to execute in-depth experiences in this voluntary project.

B. Composition of Membership in Task Forces

1. Characteristics of the participants were highly similar. Invitations were extended to a number of minority group people. Only two Blacks, one Latin American, one Indian and no Chicanos accepted the invitation to participate in task forces. For a more diversified study it is recommended that task forces should be composed of a more heterogeneous mixture of ethnic origins, economic levels, sex, age, marital status, kinds of employment, residential areas and types of residences.

   Several reasons can be found for the lack of minority participation:

   (a) No funds were allotted in the proposal for compensation for time or travel expenses; therefore, only people having certain kinds of jobs or certain economic status could participate.

   (b) Time schedules and meeting places would have proven to be restrictive to lower income groups.

   (c) The project was rather esoteric in nature.

   (d) Minority groups in general do not rate the environment high on their list of priorities. Other essentials such as job opportunities, good education and adequate housing are more pressing.

2. The participation of the highest level decision makers was also a disappointment. Here again special efforts must be made to insure their involvement. A program designed especially for them, which fits their time schedule and located conveniently for them is essential. They must be impressed with the importance of the project in order to be willing to invest their time.

C. Orientation Activities

1. The value of the space maze, auditory and tactile experiences are subject to question. The participants did not interpret these experiences as learning experiences. The maze may have had a subconscious input. References were made to these activities in task force meetings. The sensory awareness activities helped establish a feeling of comraderie and adventure as a background for an environmental study. However, the amount of money, time and energy devoted to designing, building fireproofing and disassembling the space maze seems to have been greater than the value it had for the participants of this study.

2. Some members of the Supervisory Board felt that much of the participants' lack of understanding of the space maze and its relevance to the environment or Town Lake was due to its not being sufficiently interpreted or explained to the participants. Persons with a lack of background in the assigning of spaces do not always appreciate their importance, impact or meaning.

## VIII. RECOMMENDATIONS FOR REPLICABILITY

The educational process of the Town Lake Environmental Awareness Study was designed to bring people of varied backgrounds to learn and work together. Its application is universal. It can be used in education, business and government. Provisions for the successful interaction of people helps to alleviate feelings of alienation and produces a more informed and involved citizentry.

With imagination and variation the process used in this study can be replicated in many different ways, some of which are as follows:

Broad Community Education and Involvement Process

Communitys can apply the Town Lake Environmental Awareness Study format for the environmental education of its citizens. Each community would need to adapt its format to suit the community's needs.

1. Community leadership could prepare environmental tours for citizens to familiarize them with the problems and/or plans of the community and how people relate to them. These tours should increase awareness and concern on the part of the citizens.

2. Presentations of existing city plans and/or problems could be presented before citizen groups. Question and answer periods might follow, led by moderators who are city officials or representatives.

3. Citizen's meetings might be held in different geographical locations of the city. Times should be convenient and places accessible.

4. After the study citizens could be asked to comment on and submit recommendations for plans and/or problems.

Process for Addressing Specific Community Projects and Problems

1. Task forces should be formed with appropriate representation from various segments of the community.

2. To insure representative, well-qualified task force members, the city or other governing body could appoint members of these task

forces using recommendations from such community groups as: minority business associations, Chambers of Commerce, educational organizations, citizens organizations, medical groups, professional groups, etc.

3. Task forces should be given specific directives for the project which would outline their responsibilities, the scope of their research activity, the time required, and desired goals.

4. Possible research methods to be used would be background data gathering, on-site inspections, comparison with similar problems in other areas, use of resource people, contact with people directly affected by the proble, etc.

5. Task forces should be encouraged to seek creative and imaginative solutions to environmental problems.

Education

If the process in this study were applied to our educational system, it could have far reaching results. It is the premise of this study that the relationship of man to man, man to the man-made environment and man to nature has lead to many of man's current environmental problems. This lack of understanding, in part, stems from the compartmentalization existing in our school system and our teaching process. Interdisciplinary interaction at all levels of education, would help in solving this problem.

At the College Level

1. Interdisciplinary group activity should be designed into the curriculum and credits awarded for this type of study.

2. Students should participate in dialogue groups with representation from various disciplines.

3. These groups could be assigned areas of research where they might direct themselves to specific projects or problems of the community, such as a study of the impact of the automobile in a particular community. This study could involve a great range of disciplines...the economist for the cost of supporting highway systems, the number of jobs created by the industry; the sociologist for the effects on people; the biologist for the

impact on the human body; the engineer for the designing of new systems of transportation; the journalist for the impact of advertising, and the doctor for the impact of air pollution.

4. Interdisciplinary interaction should also be provided for at the faculty level. Cooperation and understanding of different departments is enriching to the total problem.

At the High School Level

In this area this approach is particularly beneficial. Mini or small scale Town Lake Environmental Awareness Studies can be planned to introduce the student to the interrelationship of elements in the environment and his involvement with these elements. A smaller scale environmental model would need to be used. Again tours and resource persons would be used. Some suggestions for student involvement would be:

1. Doing research and study in the appropriate areas.

2. Surveying the needs of the residents affected by the project in an unsophisticated fashion such as random sampling, surveys by phone, mail, or door-to-door canvasing.

3. Drawing up plans and making their own recommendations.

4. Submitting plans to appropriate bodies for their consideration.

5. Suggest ways of implementing recommendations (i.e., if plans call for the beautification of a park, students might be able to organize fund-raising in the area or organize clean-up, beautification campaigns.

These activities, allowing the students to use their own initiative and imaginations, could help develop them into constructive, participating citizens of the future.

At the Grade School Level

The activities for this level would be made on a much simpler scale. The process would follow a similar format to that of the one recommended for the high school level.

Basic recommendations for any implementation of this study are:

1. Broad representation in the groups

2. Realistic, worthwhile, well-defined goals

3. Proper orientation to the project

4. Use of interdisciplinary consultants and participants

5. Opportunity for the groups to use creative and imaginative approaches to the project