Communications system for the Center for Environmental Information Inc.

Carlo Piech

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COMMUNICATIONS SYSTEM FOR THE
CENTER FOR ENVIRONMENTAL INFORMATION INC.

by Carlo R. Piech

Candidate for the Master of Fine Arts Degree in Communication Design at the College of Fine and Applied Arts of the Rochester Institute of Technology

May 28, 1975
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ACKNOWLEDGMENTS

Thesis Committee
R. Roger Remington
James Bare
Elizabeth Thorndike

Advisor
Professor of Communication Design
Professor of Communication Design
Executive Director, Center for Environmental Information Inc.
INTRODUCTION

Background

The Center for Environmental Information Inc. is a non-profit organization funded by the Monroe County Environmental Management Council, the Junior League of Rochester, the Gannett Foundation, and membership dues. Located at 33 South Washington Street, in the Jonathan Child House, its membership is open only to organizations, agencies, educational and corporate bodies.

Its major service is the collection and distribution of environmental information. A secondary function is environmental education.

Its staff includes a full-time executive director and office manager. Volunteers make up the rest of the organization. They contribute services in public relations, television, radio, graphics, writing, fund-raising, and office help. There is also a nine member board of directors and an advisory board of no less than twenty members.

The communications devices working at the onset of this thesis included The Link and an identification element which was present in a variety of versions. The Link is an eight page monthly, tabloid format, newspaper which is available in several public facilities in the city of
Rochester at twenty-five cents per copy. It is also available by subscription.

Other graphics produced by the Center at that time included a brochure and a poster which introduced the Center and described its services.

Objectives

An important aid which I used to determine the objectives is the communication theory grid. (See Appendix I.) This device helped the leaders of the Center and myself clarify exactly their needs and how they might be addressed. This process produced the following objectives:

1. To develop a communications program that reflects the purpose and goals of the Center.
2. To establish communications systems that will insure future integrity of design.
3. To have individuals, groups, and organizations use the Center.

Program strategies:

1. To have people realize the functions of the Center and ways they may utilize its services. (Awareness)
2. To recommend ways that people can become involved in environmental action through the Center. (Concern)
Program evaluation:

1. To assess the achievements of this communications program in addressing the above objectives.
Although there are many environmental organizations producing graphics, I found little evidence of good design. I did however, find many widely used and recognized environmental symbols. These helped determine what the leaders of the Center envisioned their identity to be in graphic terms. Tree and water forms were selected over water drops and land formations. Also circles and arrows were preferred to illustrate the graphic communications priorities.

The form in Appendix III. shows an effort to determine the Center's character and functions. Included is a representative list of responses.
Identification Mark and Applications

The design of the identification mark and its applications began with the following parameters:

1. The graphic mark will display the following:
   a. Distinction
   b. Impact
   c. Legibility
   d. Simplicity
   e. Adaptability
   f. Timelessness

2. It should be able to function through a series of tests relative to the above criteria.

3. Standards of usage will be established regarding replication of the graphic mark on letterhead and envelope, brochures, flyers, etc.

The Directory Cover

The design of the directory cover began with the following parameters:

1. It will visualize the concept of environmental information.

2. It will utilize necessary typography to describe its contents.

3. All future printings will bear the identi-
4. This will be a one color run due to the limited budget.

5. Half-tone screens will be considered as a possible alternative to two colors.

**The Link**

The design of the masthead and grid began with the following parameters:

1. The masthead will utilize the graphic mark.
2. "The" and "Link" will be designed into a logotype.
3. The usage of both grid and masthead will be a regular practice.
4. The grid design will be accompanied by a specifications sheet which covers each detail of its design and intended usage.
5. The 9/11 point body copy used currently will continue to be used.
6. The copy width will not exceed 10-1/8 inches on any page.
7. Headlines will be set in 48, 36, 30, 24 and 18 point Tempo.
The Exhibit

The design of the exhibit began with the following parameters:

1. It will list the services of the Center.
2. It will visualize the concepts of environmental education and responsibility.
3. It will contain holders for The Link and the brochure.
4. Due to the small budget, the images will be produced by the designer. They will be either photographs or silk-screened images.
5. The exhibit will be compactable and of such size that it may be handled easily and transported in the rear seat of a car.
6. The exhibit will be capable of being assembled in a short period of time on either tabletop or attachable legs.
Logo and Applications

The design of the identification mark and its applications came about only after an effort had been made to clarify the graphic character of the Center. The research phase enlightened me as to what the Center was about only on a first-level basis. After several designs were attempted, the information began to be prioritized by the demands of graphic inclusion or exclusion. The flow of information through the Center seemed to be the top priority. Second was an environmental element (tree, water, etc.). Finally, a round shape, as on the brochure, was thought to be an excellent way to represent the fact that the Center was an entity unattached to a larger body.

The first attempts, as pictured in Illustration A., show the environmental aspect receiving top priority. The second series of designs show the information flow becoming more active in the symbol. (Ill. B.).

The abandoning of the leaf shape for a pine tree characterizes the next phase of design. The leaders of the Center wished that no possible association be made with an oil drop. The pine tree is a more recognized symbol of environmental association as well. (Ill. C.)

Discomfort with the mechanical nature of the tree shape motivated the next change. A more organic tree shape
was investigated as well as an extension of the cyclical element. (Ill. D.)

The final phase shows the search for the best possible graphic combination of the elements. (Ill. E.) The final symbol appears in Illustration F.

The application of the mark to the letterhead and envelope is shown in Illustration G-H. After a grid was designed, the elements were positioned to relate to the letter and envelope as well as their respective grids. The ruled line in the letterhead establishes the left and right hand margins. The logo marks the point at which the salutation begins and the address marks the point where the date begins. On the envelope, the space between the top edge and the typography is twice the copy block height and equal to the height of a small postage stamp.

Directory Cover

The purpose of the directory cover was to list those environmental groups in the eight-county area served by the Center.

The concept of the cover design was to visualize the most important objective of the Center. This proved to be environmental education or more specifically, how we must adapt our behavior to coordinate with the changing relationship of the natural and man-made environments. The visual
image, hence, combines the two environmental conditions into a circular symbol that reflects their coexistent relationship.

The development of the directory cover involved first, a collection of possible images; second, an arrangement of the images with typography, and finally the treatment of the visual information within the budget restrictions.

The imagery considered had to reflect the natural and man-made environments. The sketches in Illustration I show arrangements considered. The images chosen were simple, communicative examples of their relative areas. Any additional imagery could have complicated the message.

The decision to slant the graphics was an effort to strengthen the overall design and make the typography relate to the image in a more dynamic posture.

The posterization effect gained through the 25% half-tone screen was another effort to strengthen the design as much as possible inside the budget limitations. I experimented on PMT photostat paper to vary the densities to the point where a good visual balance was achieved between the solid and the screened portions of the image.

The printed cover appears in Illustration J.

The Link Masthead and Layout Design

The redesign of The Link masthead was intended to
Directory of Environmental Agencies and Organizations

Rochester-Genesee-Finger Lakes Region of New York State

Counties:
Genesee
Livingston
Monroe
Ontario
Orleans
Seneca
Wayne
Yates
increase the visibility of the publication by virtue of a clean, well-designed arrangement of elements. The actual positioning of the typographic elements was not begun until the basic structural foundations of the grid were established. (i.e. number of columns, column widths, margin dimensions, etc.)

One factor of prime importance in the concept was the effective use of negative space. Working as a real design element, the white space will increase the visibility of the newspaper.

Illustration K. shows how I attempted to stack the typographic elements along the left side of the third column. Although this related well to the rest of the page, the non-image area was not acting as a dynamic force. The later designs (Illustration L.) show how the non-image area began to relate more to the typography. The last stage of the masthead designs depict how I worked out the letter spacing of the logotype and positioning of elements relating to the page as well as the grid. (Illustration M.)

The layout design concept offers three functions. They are to:

1. Minimize layout time for each issue.
2. Establish a resemblance from page to page and publication to publication.
3. Provide a means of quick communications among layout designer, typesetter, and printer.
"Chunneling" - A New Route for the Outer Loop

By Douglas A. Fischer
EPA Consultant To Speak At SALT Conference

The analysis of existing City'sould Department of Community Development, the has prepared draft legislation creating on the commission for co include environmental Dealing the Conference, April 25th, during Earth Week, David L. Richardson, a Project Director to develop a Manual for the "Becoming Chemicals for the Environmental Protection Agency's Office of Research and Development will present the Conference, to be held from 10 a.m. until noon, at the RIT Metropolitan Center, 50 West Main Street, Rochester.

Afternoon discussion group the drums of talk on water treatment facilities of HECOM the department of conservation of theshell of the in support of a public discussion for the National Environmental Research Center.

Bottle Deposit Law Stalled in Committee

Other tasks in the study by the New York Regional Board and the County will be a draft of the required regulations. In the town and county areas, the Committee will consider a container deposit law back to the Passenger Committee for their further consideration. The action came on the heels of a public hearing on the proposed regulations.

The program work and program debate will be held in May. The representatives of supermarkets, the area mayors, councils, and local Maltimer turned out to speak against the plan. State regulations on a deposit on a 75-cent container in the beverage containers sold in the town willAmong the 28 persons speaking in the County on the deposit of the measure was the representatives on thevariance for the deposit of the measure.

The committee is expected to give a decision on the deposit of the measure in the near future. It is expected that the committee will also consider the potential for a deposit on the deposit of the measure.

Wild, Scenic Act Protects State Rivers

This improvement, however, according to the John F. Finnegan, Director of the National Environmental and the Committee of the Adirondack Park, the Adirondack East were designated for the Act. The Adirondack East, and 33 other rivers were designated for potential inclusion in the Act by the US Forest Service.

On April 10, the US Forest Service announced its decision to designate the Adirondack East for potential inclusion in the Act. The decision was based on an assessment of the river's ecological and recreational values.

Earth Week Is April 20-26

And rain originating from those burning of oil fields in Rochester and other upstate areas in the spring of this year is expected to contribute to the adverse impacts of the recent extreme conditions.

Transit Hearing Topics: Fares, Service, Safety

Recent studies of service in the area have found that many urban areas have made significant improvements in the past few years. The studies have shown that the transit system in the region has made significant improvements in the past few years. The studies have shown that the transit system in the region has made significant improvements in the past few years. The studies have shown that the transit system in the region has made significant improvements in the past few years.
The unit grid in this case was a parameter (nine point type and two point leading). The modular grid was designed to make a vertical combination of two modules (or four vertical by two horizontal, etc.) as square as possible. This is a useful asset when laying out photographs or short articles. Grid dimensions are as follows:

- **Modular dimensions:** 7' units x 17 units
- **Number of modules:** 48 modules, (7 x 17)
  *4 modules, (3 x 17)
- **Module separation:** 1 unit (horizontal)
  2 units (vertical)
- **Margins:**
  - top: 5/8 inches
  - bottom: 5/8 inches
  - right: 11/16 inches
  - left: 11/16 inches

*The deviation noted allows for a folio on each page except the first. The folio contains a heading set flush left in 30 point Tempo, nine point page number flush right and a 1 point ruled line.

Photos and illustrations are treated as such:

1. They will be contained to adjacent modular squares to form as symmetrical a shape as possible.
2. The photo will only be 3½ unit lines of the bottom module. The remaining space is for captions.
All ruled lines are to be of a 1 point thickness and of a length that is the same dimension as the articles it separates.

1 column: 2-7/16 inches
2 columns: 5 inches
3 columns: 7-9/16 inches
4 columns: 10 inches

The purpose of designing the grid was almost entirely determined by the parameters involved. Given the unit grid, typographic styles and sizes, page width, and the desire by the Center to maintain flush left - flush right columns, my process centered around the modular grid and how information was to be laid out.

My experimentation with different module sizes had various results. When a wider module was used, headlines were too isolated from the text. A narrower module cramped rules too close to headlines. A compromise resulted as I used a relatively narrow module (7 units high), but with two unit lines separating it from the module above and below. This allowed the ruled line to exist on the unit line dividing the 2 unit module margin.

The layout of information of the grid was the most important phase of the design. Here I allowed headlines to occupy an entire grid module. Photos conformed to grid dimensions and the use of rules were encouraged to
emphasize horizontal movement. Finally, it strongly emphasized that the articles be organized on the grid in as rectangular a shape as possible. This was to eliminate mortising, an agent of visual disorganization.

Exhibit

The concept of the exhibit is to promote the following points relative to the Center.

1. Identity
2. Purpose
3. Services
4. Most important concepts

The exhibit was organized into areas that related to each other in concept, color and/or means of production. This was essential to create a visual continuity that helped individual segments relate to the whole exhibit. Panels one through three relate because of their common blue ground, four through six shared the same production technique, and seven through nine share concept, color, and technique. Panel one is the title panel. Two and three visualize the major concepts of the Center. Four, five, and six deal with the natural and man-made environments. Seven, eight, and nine deal with the services offered by the Center.

The first step in the design process was the concep-
tion of a master grid for image and typography layout. This is shown in Illustration N. Early, too, it was decided to produce the exhibit on tempered 1/8 inch masonite. The only difficulty with this material was a degree of warping after the photo prints were applied.

Panel one (Illustration P.) simply contains the logo, a copy block, and the name of the Center in large type. The elements are positioned on the right to direct movement by the audience in that direction.

Panel two deals with the concept of environmental responsibility. Illustration O shows early attempts to visualize this. These designs proved esoteric, however, as the visual elements utilized are ambiguous. The final stage utilizes imagery in such a formation that the concept is finally understood (Illustration Q.).

Panel three deals with the concepts of environmental information. I used the imagery from the directory cover for this panel. All of the first three panels are photo silk-screened on a blue painted surface. This sets the pattern for the remainder of the exhibit as the relationships shared are in groups of three panels.

Panels four and five are designed to always be displayed together. They were produced by toning with blue a two-stage posterization. I had initially wished to use three or four stages or tones of gray, but the difficulty in the darkroom of registering such large prints made this
2. Responsibility

The development of an environmental...
3. Education

Machines are the keynote. They leave their mark on the landscape as well as on science, technology, and industry. Machines alter the climate and the weather, and the weather, in turn, alters the landscape. The environmental change brought about by man's introduction of new technology is the most significant of all. The environment and its resources depend on man's changing values.

-Rodrick Nash

Educational processes must be developed to deal with man's relationships with the natural and man-made environment and include the relationship of population, pollution, resource allocation, and depletion. Conservation, technology, and urban and rural planning are essential to the total human environment.
impossible. After making two high contrast negatives of
different densities from the same black and white negative,
I exposed the more dense negative to a large sheet of
Polycontrast F printing paper. Next the second negative
was registered on an overlay sheet then exposed to the
same printing paper for the same time period to achieve
a 50% gray tone. After processing, the print was subjected
to a blue liquid toner for 15 minutes. Panel six was
produced in the same manner. (See Ill. u.)

Panels seven, eight, and nine were photo silk-screened
on an ochre ground. The panels were designed so that they
are individually dynamic, but also effective when displayed
as a group. (Ill. v.-x.)

The panels are numbered so that they can be assembled
easily. The stands are numbered as well so that they too
can be attached quickly. Loose pin hinges are utilized so
that the exhibit can be disassembled and stacked. The
exhibit can be attached to the stands by attaching the
picture hangers mounted on the panels to the screw eyes in
the stands.
7. Services

Information:
- About people, places, issues, legislation, resource materials, agencies and organizations
- Resource library
- Speaker referral
- Annual directory of agencies and organizations

Communication:
- The List — Monthly Newsletter
- Earthwatch — WAMC FM

Education:
- Workshops
- Conferences
- Counseling
CONCLUSION

In this age when we are bombarded by visual communications, the Center for Environmental Information must compete for the attention of the public. Considering the immediacy of the problems the Center addresses, I have been fortunate to attempt to increase the quality of design and communications at least to the professional level of today's less immediate causes.

In developing this communication system, I assumed several roles as a visual communicator must play in addition to graphic designer. I became involved in decision-making early in the campaign when a work plan was being established. Throughout the campaign, I was asked to explain to the members of the Center why one design approach was valid over another. I consider this a valuable experience in verbalizing design principles and processes.

On several occasions two or more Center members offered different viewpoints on how a problem may be approached and solved. I feel that playing the role of the mediator was a worthy experience in human relations as well as problem-solving.

This campaign also gave me experience working with tight budgets and timetables. The budget restraints are reflected by the parameters for The Link format, the
directory cover, and the exhibit. The tight timetable is evidenced by the fact that the entire thesis was produced in a three month period.
EVALUATION

This evaluation will refer directly to the objectives:

1. To develop a communications program that reflects the purpose and goals of the Center.
2. To establish communications systems that will insure future integrity of design.
3. To have individuals, groups, and organizations use the Center.

I believe that the first objective was achieved on the success of the identification mark and exhibit. The second objective is assured on the continued usage of The Link format grid, specifications governing identification mark applications, and specifications for repeated usage of the directory cover design. At this early date, the degree of success of the third objective is not known. However, I feel that the circulation of the directory and continued display of the exhibit will work toward achieving this objective as well.
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### APPENDIX

#### I. Communication Theory Grid

<table>
<thead>
<tr>
<th>EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Membership increase</td>
</tr>
<tr>
<td>Link Subscription increase</td>
</tr>
<tr>
<td>Overall increase of Center usage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHANNEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Print</td>
</tr>
<tr>
<td>T.V.</td>
</tr>
<tr>
<td>Exhibit</td>
</tr>
</tbody>
</table>

<table>
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<tr>
<th>MEDIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
</tr>
<tr>
<td>Photographs</td>
</tr>
<tr>
<td>Printed matter</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TO WHOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Rochester population</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SAYS WHAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presentation of what Centers and offers</td>
</tr>
<tr>
<td>Subliminal &quot;Get involved to save our environment&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHY (Motivation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>To establish a contemporary and unique identification</td>
</tr>
<tr>
<td>To get audience to use services offered by the Center</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Environmental Information Inc.</td>
</tr>
</tbody>
</table>
APPENDIX

II. Responsibility Guideline

A. Responsibilities of designer
   1. Observe and articulate functions and needs of the Center.
   2. Resolve identity needs of Center with the design of a graphic mark and the following applications. This will include a timeline showing due dates and deadlines.
      a. letterhead
      b. envelope
      c. business card
      d. masthead for "The Link"
      e. master layout for "The Link" (Design Consultant)
      f. Environmental Group Directory (cover and layout design)
   3. Meet periodically with Center representatives (progress briefings).
   5. Design and act as director of a system utilizing volunteers in art, design, and photography.

B. Function of Thesis Committee
   1. Periodic review of designer's work.
   2. Advise designer.

C. Responsibilities of Center for Environmental Information Inc.
   1. Assist designer in formation of timeline.
   2. Assist designer in gaining insight of real nature of the Center.
   3. Compensate designer for materials and supplies used during system design.
   4. Preserve professional integrity of design and procedure.
      a. The Center will not ask designer to attempt any work not specifically agreed upon at onset of thesis.
      b. The Center will have all copy, photographs, and headings complete one full week before type is set and/or two weeks before mechanical is due.
APPENDIX

II. Responsibility Guideline - Contd.

6. The Center will associate only with those printers whose quality and integrity is proven. They will not sacrifice design integrity to economize on printing.

5. The Center will assist the designer in the formation of a guide for a design network at the onset of the thesis. This guideline will manifest itself in a system utilizing the volunteer element.

6. The Center is under no moral, legal or other obligation to accept or implement the designer's work.
APPENDIX

III. Character Analysis Form

A. List 10 words that best describe its nature or functions.

1. environment  
2. education  
3. information  
4. forum  
5. independent  
6. communication  
7. coordination  
8. issues  
9. success  
10. regional

B. With future growth, do you perceive a change in the nature of the Center and if so what might it be?

No

C. In your opinion, what aspects of the Center should the graphic mark/logo allude to?

information, in 4 out, environmental

D. Prioritize the three or four most important aspects of the Center.

public information services, communication, education
APPENDIX

IV. Timeline

[Timeline diagram]

- JANUARY 1: Planning Period
- FEBRUARY 1: Logo (ID mark)
  - Logo Applications
  - Directory Cover
  - Exhibit
  - Link masthead and grid
- MARCH 1: Presentation of logo, Directory, Cover, Link, grid
- APRIL 1: Board meeting
- APRIL 12: Midtown Display
- MAY 1: Thesis Documentation
- MAY 5: Thesis Exhibition
- FEBRUARY 16: Logo complete
- JANUARY 30: Thesis Committee meeting
APPENDIX

V. Material Costs
Excluding typography and printing except where indicated.

Directory Cover

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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</thead>
<tbody>
<tr>
<td>Film</td>
<td>5.00</td>
</tr>
<tr>
<td>Type</td>
<td>12.00</td>
</tr>
<tr>
<td>Mount board, glue, miscellaneous</td>
<td>3.00</td>
</tr>
<tr>
<td></td>
<td>20.00</td>
</tr>
</tbody>
</table>

Link Masthead and Grid

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Film and stat paper</td>
<td>7.00</td>
</tr>
<tr>
<td>Visualizing paper</td>
<td>2.50</td>
</tr>
<tr>
<td>Mount board, miscellaneous</td>
<td>2.50</td>
</tr>
<tr>
<td></td>
<td>12.00</td>
</tr>
</tbody>
</table>

Exhibit

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Film</td>
<td>20.00</td>
</tr>
<tr>
<td>Hi-fy green</td>
<td>13.50</td>
</tr>
<tr>
<td>Masonite</td>
<td>9.50</td>
</tr>
<tr>
<td>Wood</td>
<td>11.10</td>
</tr>
<tr>
<td>Hinges</td>
<td>11.55</td>
</tr>
<tr>
<td>Screw eyes</td>
<td>0.93</td>
</tr>
<tr>
<td>Glue and epoxy</td>
<td>3.61</td>
</tr>
<tr>
<td>Picture hangers</td>
<td>0.82</td>
</tr>
<tr>
<td>Spray varnish</td>
<td>1.59</td>
</tr>
<tr>
<td>Matte Fixatif</td>
<td>2.50</td>
</tr>
<tr>
<td></td>
<td>75.10</td>
</tr>
</tbody>
</table>
APPENDIX

VI. Center for Environmental Information - Staff

Mrs. Elizabeth Thorndike  Executive Director
Mr. John Merriman, Jr.  Office Manager
Mrs. William Madison  Chairman of Volunteers
Mrs. Richard Bartlett  Educational Projects
Mrs. Albert Frost  Informational Services
Mrs. Robert Thompson  Membership Coordinator
Mrs. Robert Gulick  Publicity
Mrs. William Jacobson  Circulation Manager,  

The Link
APPENDIX

VII. Center for Environmental Information Inc.

Board of Directors

Aurthur Crapsey, Chairman
John Barnes
Cliff Carpenter
Dr. Robert Collin
James Fuess
Mrs. Thomas Gosnell
Dr. Robert Lee
James Kolster
Mrs. William Madison
APPENDIX

VIII. Center for Environmental Information Inc.

Advisory Council

Dr. George Berg
Mrs. Jean Crapsey
Edward P. Curtis Jr.
Dr. Marion Davison
Dr. Raymond Delaney
Dr. Stuart Denslow
Jerry Durand
Dr. Herman Forrest
Web Francis
William Haley

Frank Hutchins
Richard Kelley
Irwin King
William Larsen
Dr. Lawrence Lundgren
Dr. Herman Osmers
Richard Shultz
Dr. Howard Smith Jr.
Dr. Edward Thorndike
Andrew Wolfe
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