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A UNIFIED GRAPHIC COMMUNICATIONS SYSTEM
FOR THE GRAPHIC ARTS RESEARCH CENTER

by
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September 25, 1974

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# TABLE OF CONTENTS

## Volume I

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgement</td>
<td>1</td>
</tr>
<tr>
<td>Introduction</td>
<td>2</td>
</tr>
<tr>
<td>Background</td>
<td>3</td>
</tr>
<tr>
<td>Objectives</td>
<td>4</td>
</tr>
<tr>
<td>Analysis</td>
<td>5</td>
</tr>
<tr>
<td>Definition</td>
<td>6</td>
</tr>
<tr>
<td>The Design Condition</td>
<td>8</td>
</tr>
<tr>
<td>Designing the System</td>
<td>10</td>
</tr>
<tr>
<td>The First System</td>
<td>12</td>
</tr>
<tr>
<td>The Proposed System</td>
<td>14</td>
</tr>
<tr>
<td>The Seminar Booklets</td>
<td>16</td>
</tr>
<tr>
<td>The Newsletter</td>
<td>18</td>
</tr>
<tr>
<td>The Products and Services Catalog</td>
<td>20</td>
</tr>
<tr>
<td>Conclusion</td>
<td>22</td>
</tr>
</tbody>
</table>

## Volume II

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1 Seminar Booklets and Grid System</td>
<td></td>
</tr>
<tr>
<td>Section 2 Newsletter and Grid System</td>
<td></td>
</tr>
<tr>
<td>Section 3 Products and Services Catalog and Grid System</td>
<td></td>
</tr>
</tbody>
</table>
ACKNOWLEDGEMENT

I would like to extend a special thanks to Herbert Phillips and Selah Bond, Jr., of the Graphic Arts Research Center, Rochester Institute of Technology, for sharing with me in a real sense their communications problems. This, in combination with the design ideals professed by the Department of Communications Design, has made this project a truly valuable learning experience.
INTRODUCTION

It was the purpose of this thesis to design a unified communications system for the Graphic Arts Research Center, Rochester Institute of Technology, Rochester, New York.

The system, once designed, would then be presented to the Graphic Arts Research Center as a proposed solution to their graphic communications needs for possible implementation either in whole or part.
The Graphic Arts Research Center (GARC) is part of the College of Graphic Arts and Photography at Rochester Institute of Technology. GARC serves both education and industry and acts as a liaison between the two.

More specifically, as its name implies, GARC is concerned with research in graphic arts and photography. To date, GARC has accumulated over 20 years of experience in research and testing in such areas as color reproduction and web offset printing. The results of the research are disseminated in both the academic and industrial communities. GARC is also involved in industry-supported testing programs and produces educational seminars which are held on its premises. In addition, GARC's staff is available for technical consultation.
OBJECTIVES

Everything that we say or do conveys something about us. So it is with business, small or large, independent or captive, profit or nonprofit. The Graphic Arts Research Center is no exception. In fact, because it represents the most technically sophisticated segment of the graphic arts industry and graphic arts education, it, above all, should present a public image whose coordinated, consistent use clearly communicates its identity.

Using this thought as a point of departure, my first objective was to analyze and define the Graphic Arts Research Center. Subsequently, using the results of the analysis and definition phase, it was my second objective to design a system or framework upon which GARC could begin to build a communications program that would within specific limits present a predetermined image with consistency. To accompany this second objective, it was my purpose to present specific visual examples of that portion of GARC's communications which were determined to be immediately essential to their needs.
ANALYSIS

The fundamental purpose of this phase of the project was to gather as much information as possible concerning the functions of the Graphic Arts Research Center and make some preliminary determinations as to the usefulness of their existing communications materials.

The analysis quickly served its intended fundamental purpose and extended into a twelve-week string of designer/client meetings which served to not only lay the groundwork for a definition of GARC but also kindled an interest on the part of the Graphic Arts Research Center to reevaluate their own position and rethink their specific communications needs.

Another purpose of the analysis phase was to determine what it is that GARC must communicate and to whom.
The definition phase is for the most part a culmination of the information gathered during the analysis phase. Its intended purpose is to bring designer and client to a point of closure that most clearly defines the client and the image the client wishes to project. The analysis phase must be temporarily terminated and a point of closure or definition arrived at in order for the designer to begin production.

The termination of the analysis phase and the arrival at a definition should by no means be an end. Rather, it should be an ongoing process by which the client is constantly evaluating his corporate position with respect to its changes and communications wants and, in conjunction with the designer, mutually determine its communications needs.

Philosophically the goals of the Graphic Arts Research Center are to take education and research beyond the classroom to help fulfill the needs of industry; to act as liaison for RIT's College of Graphic Arts and Photography with industry, other educational institutions and the graphic arts society.
both locally and internationally; and to gain financial support for RIT from industry.

Like all businesses, GARC must view its real position somewhat differently from its philosophical position. Research and the dissemination of the resulting information are the most costly functions that GARC performs. In order to finance the research, it must solicit aid from industry and offer educational seminars to help subsidize its research function. In a time such as this when the economy belt has been pulled taut to the stretching point, the money squeeze for research becomes even more acute. Therefore, GARC must be able to communicate the necessity for its function in a way that will bring in industrial funds for research.

GARC's communications goal then is to inform the graphic arts industry at the middle and upper management level of the importance of its research function, the importance of its liaison function, and the importance of its educational function in order to increase incoming revenue.
THE DESIGN CONDITION

Let me take this opportunity to explain what is commonly referred to as the "design condition" or those elements the designer must consider which are fixed and over which he has little or no control.

Because the Graphic Arts Research Center is a nonprofit function of RIT, and is responsible to a great extent for soliciting revenue for its own support, a budget for design is a matter that at this point in time would be unheard of even in GARC's wildest dreams. Nevertheless, GARC readily realized that "something needed to be done" to update its publications in an attempt to increase needed funds.

GARC's income from industry is not always in the form of cash but is sometimes in the form of equipment and materials. Keeping in mind the fact that there is no design budget, donated materials, and limited equipment, a very confining yet extremely interesting design condition resulted which is explained as follows: (1) The Newsletter, the Seminar Booklets, and the Products and Services Catalog are three communication pieces that were determined to be of primary importance because the Newsletter keeps GARC
in touch with its constituency on a monthly basis, the Seminar Booklets inform its constituency of the seminars being offered, and the Products and Services Catalog informs its constituency of what products and services are presently available and how they may be obtained; (2) limited typesetting capability not always available when needed; (3) paper size and format restrictions based on present press capabilities and budget limitations.
DESIGNING THE SYSTEM

Keeping in mind research, education, liaison, and middle and upper management, it was determined that the most important things to be communicated were organization, quality of product, and a consistency of communications that would be visible from piece to piece. One of the most valuable design tools to create system organization or integrity is the grid, a method of organizing elements which eliminates arbitrary placement on the printed page and ultimately minimizes layout time.

A flexible but not completely variable consideration at this point was the fact that RIT had recently adopted a new Institute-wide graphic standard with respect to the use of its identity which must be followed by all RIT colleges and departments. It was determined that in an attempt to be in keeping with the feeling expressed by the new graphic identity at RIT, a viable step in relating GARC with the Institute would be to use the same typeface used by the Institute. Thus, the Helvetica family of type was selected. In so doing any possible typographical conflict was eliminated, and where
necessary or desirable the RIT identity could be used on or in conjunction with any GARC publication without loss of design integrity.

The other major consideration in designing the system was that the design conditions must be considered at all times so that they function within the system.
THE FIRST SYSTEM

The first system or preliminary system was designed as a visual model to determine if within required limits it functioned with the desired aesthetic integrity as well as having the capability of functioning as needed by the Graphic Arts Research Center. The basis of the system was a 12 point unit grid which was then converted into a 3 column modular grid system with each module measuring 15 picas in width by 7 picas in depth having 1 pica (unit) between the modules. The format contained 3 modules across and 8 modules down or a total of 24 modules and was to be centered on an 8 1/2 x 11 page.

The 12 point unit was based on 10 point type regular or normal weight leaded 2 points with accompanying italics of the same size to be used for emphasis in the text matter and 12 point medium weight with no leading to be used for headlines. The type was set and visual models were laid out and critiqued. It was determined that as a system there was no functional problem; but aesthetically with respect to the image to be communicated, it was felt
that the type size was too large to create the sophisticated precise feeling that was desired.
THE PROPOSED SYSTEM

Visual examples of the proposed system can be found in the accompanying appendix volume, which is divided into three sections consecutively numbered and labeled with respect to their contents. It may be helpful for the reader to turn to the appropriate section when reading the explanation.

The unit grid

As previously stated, the entire system is based on a 12 point square unit grid. Originally this selection was determined by 10 point type leaded 2 points. It was since determined that 9 point type leaded 3 points would be a more appropriate selection and would maintain the convenience of the 12 point unit grid.

The modular grids

A modular grid was developed for each page format based on the previously mentioned unit grid. Specifications for each of these modular grids will be detailed in the explanation of the related page format.
The type face

Previous discussion indicated that Helvetica would be used as the type face for the system both as headline and text type. It was determined that 9/12 Helvetica regular would be used as text type with the accompanying italic for emphasis in body matter and for captions. For all headlines 11/12 Helvetica medium would be used.

All type will be set in caps and lower case and will be flush left and ragged right. Paragraphs will be indented 1 unit (12 points) with the exception of the first paragraph of a column or the first paragraph following a headline or subheadline. These paragraphs will not be indented. Subheadlines will be set in 9/12 Helvetica medium.
The Seminar Booklets (Section 1 appendix) were designed with the following design condition:

- **Booklet size**: 8 3/4" x 11 1/4"
- **Folds**: Thirds in the 8 3/4" direction
- **No bleeds**

With the above restrictions, the following design was determined:

- **Page size**: 3 3/4" x 8 3/4"
- **Module dimensions**: 4 picas x 9 picas
- **Number of modules**: 20 (2 horizontal x 10 vertical)
- **Module separation**: 1 pica

**Margins:**
- **Left page**
  - Top 1/4"
  - Bottom 5/16"
  - Left 5/16"
- **Center page**
  - Top 1/4"
  - Bottom 5/16"
  - Left gutter 9/16"
  - Right gutter 9/16"
- **Right page**
  - Top 1/4"
  - Bottom 5/16"
  - Right 5/16"

**Typography**

Type will be set in the face and style previously mentioned and with a 9 pica measure for headlines, subheadlines, captions, and text. Headlines will begin in the upper left corner of a module and will be limited to that module. The accompanying text will
begin in the upper left corner of the next open module below the headline. In the case of a subheadline, the subheadline will begin in the upper left corner of the next open module below the headline, and the text will begin flush left with one unit (12 points) between the bottom of the subheadline and the top of the text. Where headlines follow preceding text matter, they will begin in the upper left corner of the next open module below the text.

Photographs & Illustrations

Photographs and illustrations will be limited to two rectangular formats. The horizontal format will be 2 modules wide by 3 modules deep. The vertical format will be one module wide by 3 modules deep.

Note

The top row of modules will contain headline matter only. All other matter will begin in the module below. If no headline falls in the topmost module, it will be left open.
The Newsletter (Section 2 appendix) was designed with the following design condition:

- **Size**: 12 1/2" x 19"
- **Folds**: in half in the 19" direction in half in the 12 1/2" direction
- **No bleeds**

With the above restrictions, the following design was determined:

- **Page size**: 12 1/2" x 19"
- **Module dimensions**: 6 1/4 picas x 14 picas
- **Number of modules**: 56 (4 horizontal x 14 vertical)
- **Module separation**: 1 1/2 picas except between the two inner columns where they are separated by 6 picas horizontally

**Margins:**
- Top 3 1/2 picas
- Bottom 3 1/2 picas
- Left 3/4" Gutter 6 picas
- Right 3/4"

The masthead was redesigned to read Graphic Arts Research Center Newsletter instead of GARC Newsletter in order to present a more formal image. The masthead will always appear as indicated in Section 2 appendix and will be the only element in the 4 modules it requires.

The existing newsletter requires the reader to fold it back on itself in order to complete reading it. This format was redesigned making the inside page
a tabloid format to facilitate readability.

Typography

Type will be set in the face and style previously mentioned and with a 14 pica measure for headlines, subheadlines, captions, and text. The headlines will begin in the upper left corner of the upper left module. Text will begin flush left 2 units below where the headline ended. In the case of subheadlines which will begin flush left 2 units below where the headline ended, the text will begin flush left 1 unit below where the subheadline ended. The article will continue sequentially down the columns in tabloid format.

Photographs & Illustrations

Photographs and illustrations will be limited to 2 formats, one square 1 module wide x 2 modules deep and one rectangular 1 module wide x 3 modules deep. No restriction is made with respect to their placement with exception of the area containing the masthead and the page containing the self-mailer.
The Products and Services Catalog (Section 3 appendix) was designed with no specific restrictions placed on the designer and is as follows:

**Page Size**: 8 1/2" x 11"

**Module Dimensions**: 6 1/4 picas x 14 picas

**Number of Modules**: 24 (3 horizontal x 8 vertical)

**Module Separation**: 1 1/2 picas

**Margins (determined by 2 page spread)**:
- **Left Page**:
  - Top 1/2"
  - Bottom 7/16"
  - Left 5/8"

- **Right Page**:
  - Top 1/2"
  - Bottom 7/16"
  - Right 5/8"
  - Gutter 13/16"

**Typography**

Type will be set in the face and style previously mentioned and with a 14 pica measure. The order number for products will precede the headline (same size and weight type face) and will begin in the upper left corner of the uppermost module of a column. The headline will begin two units below the order number and flush left. The text matter will begin in the upper left corner of the next open module below the headlines. A new column will be used for each product with the uppermost module in each column being
reserved for order number and headline. Should a product description exceed more than one column in length, the uppermost module of the additional column(s) will be left open.

Photographs & Illustrations

Photographs and illustrations will be restricted to one format (square) 1 module wide by 2 modules deep, and will be placed in the 2 modules at the bottom of each column. Should there be no photograph or illustration to accompany a product or service, the bottom 2 modules will be left open.

Note

Following the proposed design for the Products and Services Catalog (in Section 3 appendix) are two alternative cover designs.
CONCLUSION

For me the thesis project has been an incredible journey in experience and education. It has brought together the ideal world of education and the real world where the necessity for design is at a peak and the funds to support it are almost nonexistent.

Forced to deal as a liaison between the two, I have attempted to arrive at a viable solution acceptable to both worlds.

In brief, I have attempted to solve or rather begin to solve some of the graphic communications problems of the Graphic Arts Research Center at RIT. In doing so, I have tried to demonstrate how they might better communicate an image of themselves to their constituency.

Of equal importance is that the processes I have used and the problems I have encountered may well serve the reader as an educational tool demonstrating many of the situations the designer will encounter.

In order to reinforce my belief in design systems and to exemplify their effectiveness in ordering disparate elements, I have used the system which I designed for the Graphic Arts Research Center for the
presentation of the visual portion of this thesis (Volume II appendix). An adaptation of the same system was used in the presentation of the type-written portion of this thesis (Volume I).