

A GUIDE TO THE MEDIA CENTER

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Note: The portfolio is contained in the accompanying black folder.

LIST OF ILLUSTRATIONS

A. Pocket sized folder idea

B. The ten point unit grid

C. The modular grid

Note: Illustrations appear following the conclusion (page 8).

PROBLEM

The experience of many students when they first begin their Communication Design Major is similar. They are given a tour of the department media facilities and instructed, by groups, in the use of a vast array of equipment. A few weeks later they return with an assignment, the solution of which requires the use of the equipment, and they don't remember all of the developing times and procedures they need. They then must have either the Communication Technologist or the Graduate Assistant individually review the instructions. When this happens time and again for each of the approximately sixty new Junior and Graduate students in Communication Design each year, the lost time of the Communication Technologist becomes considerable.

SOLUTION

Theory

Give each Communication Design Student a printed copy of clear, concise instructions that he can refer back to as necessary when he needs to use a particular piece of equipment.

Design

Because of the changing nature of the Media Center it was decided that an unbound "portfolio" of instructions should be given to the students. The Communication Design Department is constantly reviewing it's needs and updating and adding equipment. If these instructions were to be bound into a booklet they would become obsolete quickly. The portfolio type arrangement allows for later additions as well as deletions without destroying or totally re-printing the instructions.

Selection

The first step was to decide which, of all the equipment and processes available, warranted the printing of instructions. The primary factor considered was the frequency of use. Of the list of equipment and processes found on the Introduction and Equipment/Process Cross Reference Chart pages of the portfolio, ten were selected.

Simmon Omega Staromat Phototypesetter
Singer Friden Justoperf 8203, Justotext 70
Phototypesetter
Polaroid MP3 Multi-Purpose View Camera
Photostats
Photo Silk Screen Stencils
DuPont Cromalin Color Proofing System
3M Color Key Imaging Material
Robertson 432 Vertical Camera
Nu-Arc Plate Maker
Orthographic Film

Copy Writing

With these ten selected, the task remained to assemble all of the technical literature and brochures available on these processes and equipment. A copy format was decided upon in order to make all of the instructions clear. First there is an introductory paragraph briefly explaining the function of the process or machine. Then a Materials list, a Preparation list, and next the Process itself with the step by step instructions. Last there is a section called Troubleshooting that explains some of the more common mistakes and remedies.

Using this format the copy was written for the ten instruction sheets. The copy was proofread and revised twice, before arriving at instructions that were clear and understandable.

Eleventh, twelfth, and thirteenth pages were added in the form of Title page, Introduction, and Equipment/Process Cross Reference Chart. The Introduction contains the educational rationale for the Media Center as well as a list of materials and equipment available. It also contains the general rules and regulations necessary for the operation of the Media Center. The Cross Reference Chart was designed to help students know what machinery is involved for each process and conversely, what processes can be done on each piece of equipment. As the paragraph on the chart states, it is a general guide and takes into account many different possible uses of each piece of equipment.

Design format

Several considerations went into the final physical make-up of the portfolio. First was the printing limitations. The instructions were to be printed on the Itek 11/15 duplicator and so the maximum page or spread size was limited to 10 x 15 inches. The second consideration was convenience. Most students carry notebooks or folders approximately $8\frac{1}{2}$ x 11 inches and so it was felt the maximum size should be reduced to fit within these notebooks. At this point the idea of pocket sized folders of equal folded size but of varying page numbers came up. (See illustration A.) This idea was eliminated because a slip case of some kind would have to be designed to contain the folders and most any well constructed slip case does not allow for future additions to the number of items it contains.

The square format within a loose portfolio was decided upon for these reasons. One, the loose portfolio allowed for expansion. Two, the amount of copy for the ten pages varied widely and the approximately $8\frac{1}{2}$ x $8\frac{1}{2}$ square would hold the maximum copy without "losing" the minimum copy. Three, the size fit the maximum convenient size decided above. Four, the Department of Communication Design already possessed a number of square folders that would contain the instructions.

With the approximately $8\frac{1}{2}$ inch square size set, a type size/leading relationship of 8/10 point (eight point type with two points of leading between each line) was decided upon. It could be seen that with three columns of type the instructions with the maximum copy would fit into the page with the 8/10 size and also be easy to read.

A ten point unit grid was drawn (illustration B) to obtain a minimum unit of measure upon which all others would be based.

A modular grid was then drawn (illustration C) delineating the three columns, margin sizes, photograph size and position (if any) and the actual size of each page, 63 x 63 units or $8\frac{11}{16}$ inches square. The modular grid was also drawn to accommodate a final design with a title area at the top separated from the body copy by a $\frac{1}{2}$ point rule.

It was decided that the reverse side of the ten instruction sheets should contain a pertinent image to add color and break up the monotony of page after page of black type. A stipulation was made that these images be in some way related to what was on the other side of the page. A further stipulation decided that the images demonstrate various photo-mechanical techniques that are available in the Media Center. The images are photographs of all or part of the different pieces of equipment or of tools necessary in the different processes. Seven of the ten illustrate the various Caprock half-tone special effect screen patterns. Examples of half-tone dot, steel etch, straight and wavy line, mezzotint, concentric circle, and sunburst are shown. The remaining three are high contrast positive, high contrast negative, and a two color posterization.

PRODUCTION

Typesetting

Text type was set in the 8 point sans serif type face on the Singer Friden Justowriter machine. Originally it was intended to have the type set by Unitac International, but two reasons determined the change. The first was cost, which ran upwards of \$200. The second reason was that it seemed like a good idea to have the perforated tapes on file in the Media Center in case it was later decided to reprint some of the instructions with changes. The tapes can easily be read by the Justoperf 8203 and the corrections made on them. The headlines were set using Letraset transfer lettering of the Helvetica medium face. This was then enlarged by photostat twice size and "cleaned up". The type was then reduced to the proper size and placed on the mechanical.

Photographs

In some circumstances it was necessary to take photographs of equipment controls. This was done in the case of the Robertson 432, Polaroid MP3, and the Nu-Arc Plate Maker, because photos of these three with call outs made the instructions easier to understand. A black and white print was made of each negative to exactly twice the size needed. Using a halftone dot screen, a negative was shot at 50% producing suitable halftones ready for plating.

Stripping

When all mechanicals were completed, they were proofread once again and the necessary changes made. Ortho negatives of each were then made at 100%. These negatives were "stripped" (taped) into printing masks or flats, cutting windows and adding the halftones of the photos where necessary. At this point the 3M offset plates were made.

Paper

It was originally intended to print a large quantity of these portfolios so that each Communication Design student could have one and there would be a reserve for some years to come. However, because of budgetary problems the necessary funds were not available to buy a sufficient quantity of paper to print the 300 to 400 copies of each of the thirteen pages. So, enough paper was purchased to produce a limited edition of perhaps 30 copies with the intent that more would be printed in the future when funds for paper became available.

The selection of the paper took some time and considerable search was involved before locating:

1. A paper opaque enough so that the silk screen images on the back would not show through.
2. A paper thin enough to feed through the Itek Duplicator.
3. A company that would sell the small quantity desired.

When all three conditions were finally met the paper, Budd Regatta 70 pound white cover, was purchased from the Rochester Printers Supply on North Ave. The paper was then cut to the final size and all was ready to print.

Printing

After a little work at properly registering the first plate to the paper, the remaining twelve plates needed no readjustments and the printing was accomplished in one morning.

Silk Screen Images

The following descriptions are taken from the Productions Notes printed on the back of the Introduction page of the portfolio.

All images were first photographed on 35mm Plus-X film. Black and white prints were then made to approximately the final size.

Individual Notes: A. Caprock Steel Etch Halftone Screen. Using the Robertson 432, an ortho negative was made of the black and white print using the Steel Etch Screen. The Steel Etch Screen was placed on top of the unexposed ortho on the vacuum board and an exposure of 45 seconds was made. Next the negative was contact printed to make a film positive. This film positive was used to expose the Hi-Fi green stencil from which the final silk screen print was made.

B. Kodak Autoscreen Dot Halftone Screen Using the Robertson 432, the black and white print was reduced on to a 4 x 5 piece of Autoscreen ortho film to make a negative. This negative was placed in a photo enlarger and enlarged on to a piece of regular ortho film to obtain the positive used for the silk screen stencil.

C. Caprock Wavy Line Halftone Screen

The same procedure was used as in A, substituting the Wavy Line Screen for the Steel Etch Screen.

D. High Contrast Positive

Using the Robertson 432, the black and white print was copied on to ortho film making a high contrast negative. The negative was then contact

printed to obtain the positive used for making the silk screen stencil.

E. Caprock Straight Line Halftone Screen

Using the Robertson 432, the black and white print was reduced on to a 4 x 5 piece of ortho film with the Straight Line Screen placed over it. The negative was then placed in a photo enlarger and enlarged on to ortho film to obtain the positive used for the silk screen stencil.

F. Caprock Mezzotint Halftone Screen

The same procedure was used as in E, substituting the Mezzotint Screen for the Straight Line Screen.

G. Two Color Posterization

Using the Robertson 432, the black and white print was copied on to ortho film making two different exposures. On the first piece of film, an exposure of 15 seconds was made and on the second piece of film an exposure of 30 seconds was made. The 15 second negative was contact printed to make a positive film which was used for the blue-green stencil. The 30 second negative was contact printed to make a positive film used for the dark green stencil.

H. Caprock Sunburst Halftone Screen

The same procedure was used as in E, substituting the Sunburst Screen for the Straight Line Screen.

I. Caprock Concentric Circle Halftone Screen

The same procedure was used as in E, substituting the Concentric Circle Screen for the Straight Line Screen.

J. High Contrast Negative

Using the Robertson 432, the black and white print was copied on to ortho film producing a high contrast negative used to make the silk screen stencil.

Several images required revision or complete change after a proof was made. One problem encountered was that the pattern of some of the halftone screens was too small to adhere to the silk screen material. This problem occurred with E, F, H, and I. The solution proved to be the production note as seen in E, making a 4 x 5 negative with the screen contacted to it. When enlarged to the proper size, the halftone screen pattern was enlarged enough to adhere to the screen.

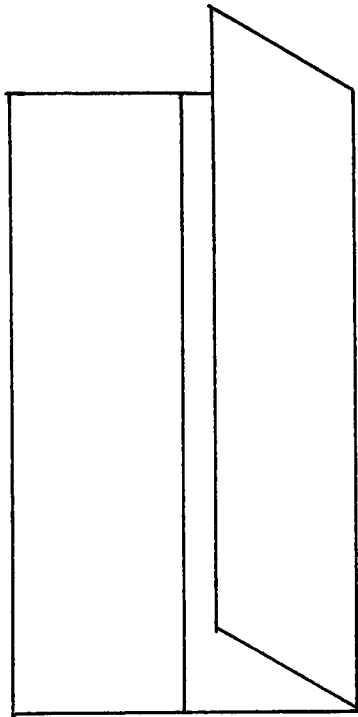
Few problems were encountered in the actual screen printing of the finished images except for the normal ones of occasional screen blockage etc.

CONCLUSION

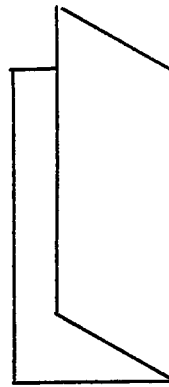
The usefulness of this thesis, once printed and distributed to the students, will determine it's real success or failure. It has already been given limited use in the form of press run-ups being given to some students who were asking questions about a process. Their response was enthusiastic which seems to indicate there will be a demand for the portfolios.

An important consideration for the future use of the portfolios is whether or not they have been kept up to date. As previously mentioned, the Department of Communication Design is always adding new equipment. As of this writing there are two additional machines scheduled to be in operation by Fall, 1974. So, in keeping with the department policy of implementing in-house educational communication literature, it remains for someone else to write and print instructions for each new piece of equipment and add them to this portfolio.

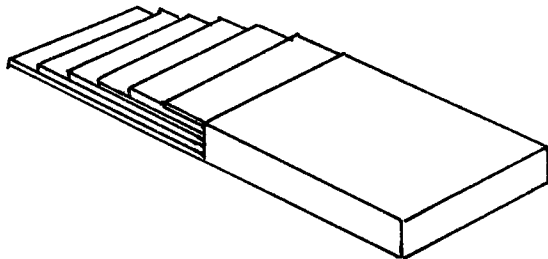
ILLUSTRATION A
Pocket Folder Idea



Two Fold for most copy



Single Fold for least copy
(also smaller)



Folders in slipcase

ILLUSTRATION B
The Unit Grid

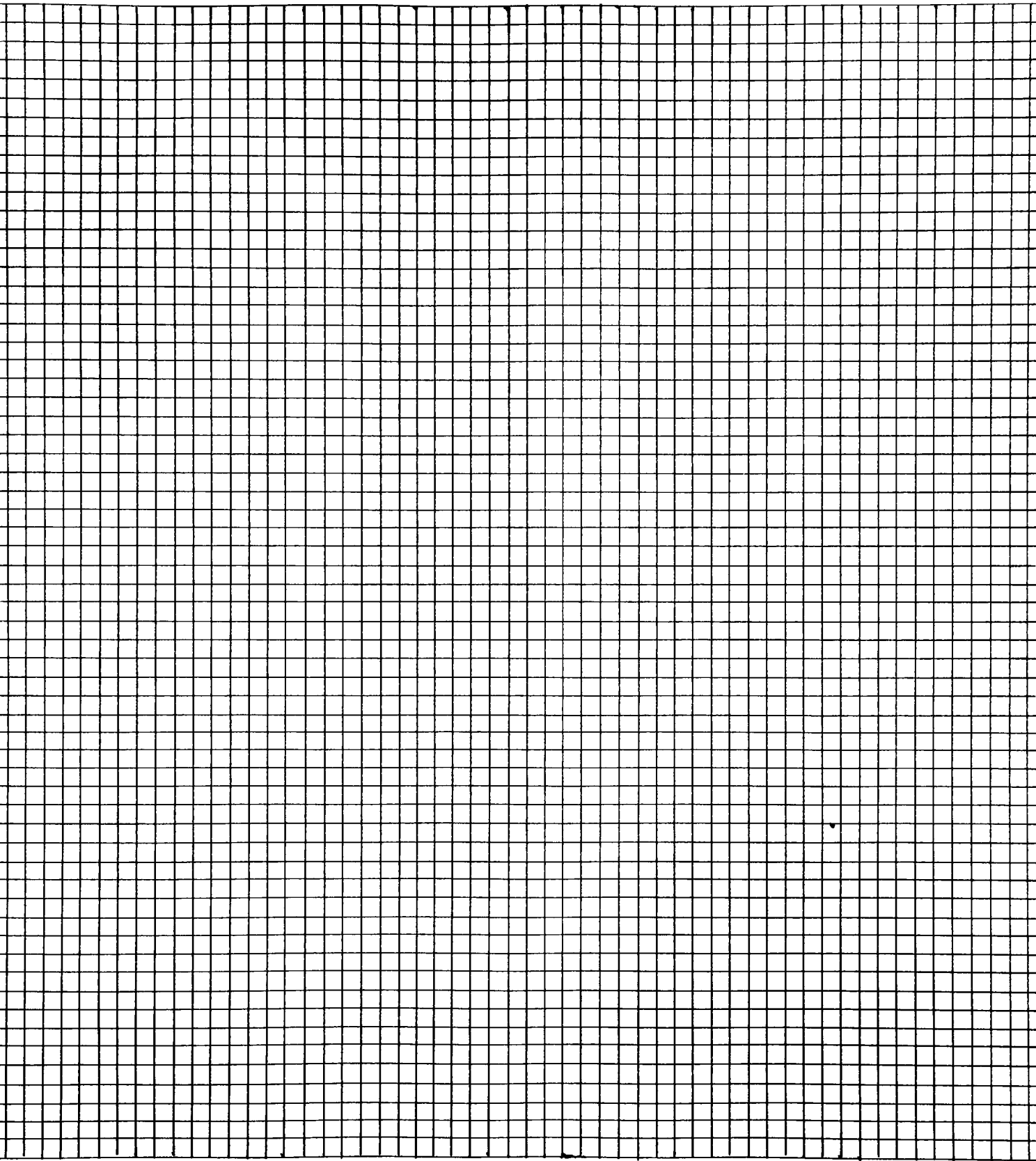


ILLUSTRATION C
The Modular Grid

