Graphic design archive on videodisc: Graphic access

Sister Alma Mary Anderson C.S.C.

Follow this and additional works at: https://scholarworks.rit.edu/theses

Recommended Citation

This Thesis is brought to you for free and open access by RIT Scholar Works. It has been accepted for inclusion in Theses by an authorized administrator of RIT Scholar Works. For more information, please contact ritscholarworks@rit.edu.
A Thesis Submitted to the Faculty of
The College of Fine and Applied Arts
In Candidacy for the Degree of

MASTER OF FINE ARTS

GRAPHIC DESIGN ARCHIVE ON VIDEODISC: GRAPHIC ACCESS
By
Sister Alma Mary Anderson, C.S.C.

December, 1987
APPROVALS

Advisor: Prof. R. Roger Remington
Date: 12-17-87

Associate Advisor: Prof. Robert Keough
Date: 12-16-87

Associate Advisor: Dr. Barbara Hodik
Date: 12-17-87

Special Assistant to the Dean for Graduate Affairs: Prof. Philip Bornarth
Date: 12/21/87

Dean, College of Fine and Applied Arts: Dr. Robert Johnston
Date: 12/8/87

I, Sr. Alma Mary Anderson, prefer to be contacted each time a request for reproduction is made. I can be reached at the following address:

Date: ___________________
TABLE OF CONTENTS

Title Page
Approvals
Graphic Design Archive on Videodisc: Statement of Purpose

Background .................................................................................................................. 1
  Expansion of the Archive; Timeline; Phases; Funding; Archive Identity Program; Expert System; Evaluation Criteria; Evaluation Elements:
  Questions; Evaluation Elements: Key Words; Thesaurus; Data Base and Taxonomy; Taxonomy Division; Data Base Elements

Thesis .......................................................................................................................... 7
  Rationale; Committee and Advisors; Title; Title Animation; Title Elements and Structure; Animation Timing; Archive Description, Definition, Procedure;
  Panel Design; Menu Animation; Space on Disc; Icons; Graphic Design Environment; Progression into Taxonomy; Menu Design; Pull-down Menu;
  Exiting the Browse Mode; Color; Modification of Taxonomy Form

Constraints/Realities ................................................................................................. 16
  Subject; Medium; Time; Reproduction of Images

Immediate Suggestions ............................................................................................ 19
  Information Cards; Network; Computer Interface; Resolution/Definition

Opportunities ............................................................................................................. 21

Notes/Definitions ....................................................................................................... A1

Appendix
  Illustrations ............................................................................................................ B1
  Documents .............................................................................................................. C1
GRAPHIC DESIGN ARCHIVE ON VIDEODISC

Statement of Purpose

The Graphic Design Archive on Videodisc is an interactive data base of visual text frames of information from the history of graphic design. Through an “expert system” the videodisc will be driven by a computer program with a vast store of specialized knowledge about graphic design. The user will be able to interact with the images and text for educational and research purposes.

The data base’s primary focus is on the work of the European Avant-garde artists (Dada, Futurism, Bauhaus, etc.) and the American design pioneers of the 1930’s and 1940’s (Beall, Lustig, Burtin, etc.); however, as an historical foundation, it also contains materials from graphic design, art, photography, advertising, typography and printing.

R.Roger Remington 2/6/86
BACKGROUND

Conceived by Dr. Barbara Hodik and utilizing images from the collection and research of Professor R. Roger Remington, the Graphic Design Archive\(^1\) entered the video age when a sampling was included in a prototype videodisc\(^*\) by the American Video Institute (AVI)\(^*\) at the Rochester Institute of Technology.

The initial organization of graphic design images was prepared by Catherine Elkin in 1985.\(^2\) She established categories into which the images were grouped, then assisted with their benching\(^*\) as a preliminary step in making the prototype disc.\(^3\)

Expansion of the Archive

The archive continued to expand as new pieces and even entire collections of established designers were donated through Professor Remington’s efforts.\(^4\) Slides were made of pieces that were to be returned, then they were catalogued and prepared for benching. Professor Remington continued to meet with persons interested in the archive as sources of both images and information. He also began to gain the interest of groups interested in being part of a projected network for accessing\(^*\) and adding to the archive.\(^5\)

Timeline

A timeline for development of the actual archive on videodisc was developed by Professor Remington and work was begun on the Graphic Design Archive on Videodisc.\(^6\)

\(^*\) asterisk indicates a definition or explanation: see A1-A3.

\(^1\) see appendix, C1-C7, Graphic Design Slide Archive.

\(^2\) see appendix, C8-C13, Graphic Design History Videodisc Archive Project.

\(^3\) see appendix, C14-C15, archive development chart.

\(^4\) see appendix, C16, Archive Development Draft.

\(^5\) see appendix, C17, Proposed International Graphic Design Archival Network.

\(^6\) see appendix, C18, Graphic Design Archive on Videodisc, Draft 1.
Phases

Funding

As he made contact with designers, their friends and families, Professor Remington was also applying for grants to assist in the development of the archive. He received funding from the National Endowment for the Arts, the New York Council on the Arts and the Graham Foundation. These grants made possible technical support through AVI, particularly in development of the prototype disc and the data base for the Archive, as well as archival development--collecting and reproducing designers' archives.\(^7\)

Archive Identity Program

Concurrently, as designers' works came in, Professor Remington had them prepared for benching. Paul Neville, a graduate student, assisted in that task. John Malinoski, for his graduate thesis, designed the symbol, an identity program and a marketing plan for the Graphic Design Archive on Videodisc. He also set up the first issue of the Graphic Design Archive newsletter, Archival Update, as part of the identity and marketing presentation.\(^8\)

Expert System: Evaluation Criteria

At this time Professor Remington, John Malinoski, Bonnie House and I began to look at means of evaluating as well as accessing images and information on the disc. Dr. John Ciampa, director of AVI, suggested exploration of ways to aid inputting an expert system--software with which experts [ in graphic design ] can evaluate design and which will then rank their input. Such a system would enable a person to access images by such specifics as curvilinear symbols with regular line progression. The system would search the stored data and choose symbols which the experts had agreed were

\(^7\) see appendix, C19, Interim Development Report.

\(^8\) see appendix, C20, Archival Update.
curvilinear and had regular line progression and then list or display them for the inquirer. Further refinement could be requested if the number of images proved too unwieldy for the user's purposes.

Two ways for expert system evaluation to progress were discussed: questions and key words. Questions had to be phrased so as to have only yes or no answers, paralleling the computer's binary code. Key words similarly required a true-false or yes-no response.

Evaluation Elements: Questions

Initially the group addressed the question approach. Professor Remington prepared and brought in an extensive list of questions to which input was given. Then the questions were rearranged and grouped by category. The list of questions was exhaustive and proved to be too extensive since the application being addressed required that each question be applied to each image on the disc. It was agreed that few persons, however dedicated, would have time to take on such a project and that to limit questions according to their relevance to specific images would be to do the work expected of the experts. So the questions were consolidated to twenty two that were felt to be key to the evaluation of any images and relevant to most.

Evaluation Elements: Key Words

Key words were gleaned from the questions and then organized according to a semiotic structure. Here the idea was to find words so specific that there would be no further definition required. Thus line was too general, able to be further divided into straight, complex, weight, edge, line, curved—and curved to be divided until only true or false could be the answer; no maybe or what kind. It became evident, however, that the nature of the archive is such that it could not be evaluated within the scope of a convenient number of words,
even though the final list of sixty seven words was a refinement of the original 184 questions. The list and the questions were considered valuable references for analyses of design and still potential for an expert system. However, until more information was forthcoming about expert systems in progress, it was decided not to try to refine them any further.

*Thesaurus*

Since our group was pleased with the work done to date we addressed a further issue regarding key words: persons accessing images would often do so from the keyboard and without necessarily having the "RIT" list at hand. It seemed logical then to develop a thesaurus using the established list as a guide. The group once again brainstormed and developed a thesaurus to which a computer could refer in response to a keyboarded inquiry. The list was once again reorganized and the categories reviewed. That phase of the project was finished by the end of the spring quarter of 1986.

*Data Base and Taxonomy*

The next project was to modify the Archive's organizational chart which had been developed by Catherine Elkin and Dr. Hodik. In order to access images there must first be a taxonomy structure which defines the paths to be taken by the computer from general categories to specific words under which or to which each frame has a unique relationship. The original chart was modified by Bonnie House and each level assigned an identifying numeral or letter so the path to which an image belonged could be traced. For example, the taxonomy number for frame 9361 became W.I.A.8, or Design Work [W]; Applied Arts [I]; Drawn, Printed Impressions [A]; Advertisement [8].

During the summer quarter of 1986 identification of the images

---

12 see appendix, C30-C31, thesaurus.

13 see appendix, C32-C33, taxonomy charts: works, designer.
on the prototype disc was begun and they were assigned appropriate taxonomy numbers. The information was recorded on cards. As the work progressed additions to and shifts of categories and specifics of the chart were indicated. By summer's end most of the nearly 5000 images were identified and it was evident that the taxonomy needed to be reworked once again.

**Taxonomy Division**

In the Fall Professor Remington and I presented the summer's revision to William Covino and Bonnie House. It covered designer and design works. As particulars were discussed the group agreed that there should be a third division, that of graphic elements. The key word list was used as a framework for this and the taxonomy chart was made more inclusive.

Appropriately, the group was preparing to address categories for a data base for the archive. As the taxonomy was refined a data base outline emerged. The operating idea was to give as many attributes as possible by which an image could be identified. These in combination would enable a computer to access very specific images and information accurately and quickly. Lists were added to better define some of the attributes such as *style, medium* and *category*. The combined attributes provided comprehensive and specific information by which images could be differentiated and quickly accessed in a variety of combinations, such as:

- experimental typography of the 1920's by Schwitter
  - design work
  - date
  - designer
- posters by Lester Beall for Container Corporation's Great Ideas
  - work
  - designer
  - client
  - title

---

14 see appendix, C34, first data card.

15 see appendix, C35, taxonomy chart.

16 see appendix, C36, Draft 1, Data Base Identification Components.

17 see appendix, C37, Styles & Media; C38, Categories.
Data Base Elements

Since at this time Professor Ethel C. Comte, of the School of Computer Science and Technology at RIT, was in charge of the data base's development, she was consulted about the feasibility of inter-relating the three divisions of the archive: accessing design work through designer or design elements. After her affirmation of that feasibility and with suggestions she made for clarification of the outline, the committee finalized the list and turned it over to her. Included with the list was the work of William Covino's thesis: a visual classification system for the identity elements section of the taxonomy as well as a subject classification system applicable to any images.

Using DEC's RDB* Program, an initial data base was developed by Professor Comte and Christopher Urich. Professor Comte then turned the next phase over to her Storage Applications and Design class and the students worked on means to query the data base. This was begun in the spring quarter of 1987 and continued into the summer.

In order to coordinate cataloguing of images and data base input a new card was designed based on the data base structure. This one, in addition to taxonomic and data base information, also had on it directions and identification for benching as well as space for any pertinent text that might be entered.

---

18 see appendix, C39-C40, Data Elements for the Graphic Design Archive.
19 see appendix, C41, Data Elements for Graphic Design Archive on Videodisc.
20 see appendix, C42, Visual Classification System; C43, Subject Classification System.
21 see appendix, C44-C45, new data card.
Rationale

As the data base was developed further needs were seen relevant to the proposed archive. One of these was the need for graphics to assist in accessing images and information on the disc as well as graphics for a title animation. Accordingly, since I was already involved in the project, I decided to do my thesis on graphic access for the Archive.

It was obvious from the beginning that the clearest graphics for the project could be developed on the Genigraphics computer system. (This choice was based on computers available within RIT's College of Fine and Applied Arts).

Since the title was to be animated, John Peterson agreed to do the actual computer animation from my design specifications. I would, in addition, do the still frames.

Committee and Advisors

Professor R. Roger Remington and Professor Robert Keough were asked to be thesis advisors because of their graphic design and computer graphics expertise. Dr. Barbara Hodik was asked to be the third advisor because of her involvement in the origins of the project, her knowledge of videotape design and for the verbal refinement she could bring to the written presentation of the thesis.

Dr. John Ciampa, as head of the American Video Institute and knowledgeable about videotape operation, and Professor Ethel C. Comte, in charge of development of the data base for the project, were invited to be consultants.
Title

Title Animation

The title animation was designed to start with a close-up of the archive symbol which would then recede to a title frame. To introduce the close-up logically, the first frames were to be black. Then the diamond shapes of the disc would form.22

An attempt to introduce the diamond shapes involved weaving the design into the black frame. The first attempt had blue bands moving diagonally upward from left to right, revealing the shapes row by row. A second variation ran one broad band the same direction as the first attempt. Neither of these was successful because there were not enough diamonds in the closeup to show the pattern progression. To back up sufficiently for the desired effect would have lengthened the animation more than was suitable since this introduction was only part of a whole, not the entire piece. The business at hand was to get into the animation and then into the menus.

The third attempt represented use of the laser in recording images onto the videodisc. By starting with a black screen, as above, representing a close-up segment of a blank disc, then having the diamond shape appear to emerge, increase in size and become lighter in color, a simple means was evolved to form the shapes and at the same time to reflect laser involvement in the operation and formation of the disc.23 Once the design was completed the frame receded to form the title. As it receded the black of the background of the symbol faded to a medium blue gray while the off white of the shapes deepened to the light blue gray of the title background.24 This third attempt was accepted for the title animation.

Title Elements and Structure

Sans serif type proved most legible for the title's typography.
Lower case, to match the Archive’s stationery, was tried but was not easily readable so capitals were used. Pale gray letters with a drop shadow proved more successful and visually harmonious with the symbol and background than white letters with or without a shadow or with a letter color close to the red of the stationery’s typography.²⁵

Symbol and type were placed in the frame in similar juxtaposition as their placement on the stationery; that is, the symbol to the left of and lower than the title. For unity and organization of elements a constructional grid was developed using the symbol as its base and type was placed according to the indicated alignment.²⁶ The whole was kept as tight as possible to facilitate quick identification. It was decided that at this time the frame only needed the title, Graphic Design Archive on Videodisc, and location, Rochester Institute of Technology—these would be sufficient for initial presentation.

**Animation Timing**

The timing of the animation from the first (black) frame to the hold on the full title frame was initially recorded at eleven seconds. That seemed too rapid so two other versions were taped, one at thirteen seconds and another at fifteen seconds. The thirteen second version proved best and two final versions were recorded, one with type and one without.

**Archive Description, Definition, Procedure**

Sequences were designed to evolve from the title to definitions and explanations of the project. In this animation the words Graphic Design increased in size and changed to black as the symbol and remaining words receded and blended into the background.²⁷ Once the screen filled with the black of the enlarged letters it was to scroll upward, revealing the first of the information screens. Because scrolling words on the Genigraphics are not as clear as desired, that

²⁵ see appendix, C47, stationery.

²⁶ see appendix, B2, title grid.

²⁷ see appendix, B1, animation sequence.
part of the animation will either be done directly on videotape or, if that does not prove acceptable, will be set up (as in the display for the thesis show) as a series of still frames.

The screens were designed to go with a program that would enable the user to control the rate of scrolling to reveal additional information. Definitions and directions were divided so each part would fit within its own frame, encouraging ready access and legibility:

*Definition of Graphic Design*

Graphic design is a visual problem-solving field which is a blend of art, typography, symbolism, illustration and photography to achieve solutions that are functional, elegant, appropriate, simple and cost effective.

*Definition of the Videodisc Archive*

The Graphic Design Archive on Videodisc is an "electronic museum" of the history of graphic design. Visual and verbal frames of information about the people and products of the field are stored in a data base which is interactive for the user. This data base is organized according to a comprehensive structure called a taxonomy.

*Focus of the Videodisc Archive*

The primary focus of the archive--the American pioneer designers of the 1930's and 1940's:

- Dr. M. F. Agha
- Lester Beall
- Alexey Brodovitch
- Will Burtin
- Charles Coiner
- William Golden
- Alvin Lustig
- Ladislav Sutnar
- Bradbury Thompson.
Secondary focus is the work of the European Avant-garde artists and designers of Dada, Futurism, De stijl, Bauhaus and Constructivism.

*Interactivity Capability*

The Graphic Design Archive on Videodisc makes images available for study, research or browsing. Through computer-user interactivity each screen presents a series of choices (menu) which enable selection of examples of fine and applied art with emphasis on graphic designers, their work and elements of graphic design.

*Procedures for use of the Archive [based on probable users and uses which had been ascertained in previous meetings]*

To use this disc for study or research you may directly access the data base by typing “R” on the keyboard and at the prompt typing in the subject desired.

To browse through the disc, type “B” and proceed at your own speed.

To browse a selected program of graphic design history, type “P.”

*Menu Animation*

Further animations were indicated in order to give a sense of direction to the user as each level was asked for and gained. Since taxonomic levels of the videodisc program are a progression from general to specific and are reached by going deeper into the program, it was felt that animation would aid in giving some idea of that movement. Care, however, had to be taken in the amount of animation used.

28 see appendix, C48,
Space on Disc

Although a twelve inch videodisc can hold up to 54,000 frames on one side, thirty minutes of moving images will also fill up that space. Each second of animation uses thirty frames, so although animation beyond the title and introduction was indicated, it also had to be carefully monitored. This factor of time was helpful in keeping the animations simple as well as moderating the number of levels in which animations were used. I did, however, yield somewhat to the lure of triangles floating and spinning as they “came up” and indulged in visions of New Wave-like designs and typography as part of the text and animation frames--at least to the extent of putting them into some storyboard panels. These visions were modified back to the reality that the animations were not the main purpose of the overall project--they were solely a means of progressing into the data base in as organized a way as possible.

Icons

Icons for the three major categories of the archive were discussed and a circle, triangle and rectangle seemed basic and authentic to graphic design. The circle represents the designer; a rectangle, the shape of a file drawer, represents design works, since such are often stored in flat files and folders; a triangle, design elements which make up the work, since the triangle, as well as other drafting and illustration tools, is integral to design production.

Graphic Design Environment

An environment for the visual setting of the archive was discussed and one with a drawing table, filing cabinet, designer and computer was decided on as most appropriate. Such an environment was found and the image grabbed* into the computer. 29 When

29 see appendix, B3, studio.
the icons, in blue outline, were drawn onto the image there were problems of color stability as the blue overlapped various colors on the grabbed image. After unsuccessfully trying to vary values and chroma of blue as well as some other colors, a wash technique was tried by making a separate screen flooded with a light blue green from which the icon shapes had been cut. This, overlaid onto the studio and gradually built up, provided a color which neutralized the picture and highlighted the three icons by leaving within them the original colors of the image. Outlining these with blue enhanced them, making them obvious menu points.\footnote{see appendix, B3, studio.}

**Progression into the Taxonomy**

By touching one of the icons on the environment the user can proceed into the taxonomy. Animations from the environment lead to the next level and its menu. When a choice is made at this point an animation will reveal the next menu. After this level, when a choice is indicated, the next menu will come up as a still frame with no further animation.\footnote{see appendix, B4, menu animation sequence.}

**Menu Design**

The idea of graphic access, such as this thesis addressed, is to provide the user with an uncomplicated means of accessing material without being directly involved in computer language. To this end menu design is crucial in interactive video. A simple frame must be designed from which a person can quickly make choices. Too cluttered or distracting a menu will be confusing, detracting from the job at hand—to access images.

Design of menus for each possible level of the taxonomy involved differentiating the levels and providing graphics which could be used, with interactivity already programmed, to give the user options for going forward or retracing the path in single or more
steps. For example, the right side of each menu contains choices for progressing one step at a time deeper into the taxonomy; the left side contains a label for the current level which, when touched or otherwise indicated, takes the user back to the preceding menu; the symbol for the archive, which will take the user back to the main menu; and the icon for the category the user is in, *i.e.*, circle, triangle or rectangle.\(^{32}\)

\(^{32}\) see appendix, B5, icons.

*Pull-down Menu*

Choosing the icon will result in a “pull-down”—a chart which will replace the right side of the menu and show in word and color each step of the path which has been taken to the current level. The left side of the frame will be the same as on the regular menu in case the user wishes to retrace steps of the path. As before, the label will take the user back one level at a time. Once the desired level is reached (an outline will show each level as it is chosen) the user can touch the icon to raise the pull-down and show the menu of the selected level.

*Exiting the Browse Mode*

At any time a person can leave the browse mode by keyboarding “R” and at the computer’s query typing in the subject desired, *i.e.*, *magazine, chart*, etc. If there are further possible divisions of the subject the computer will show these for more specific choices.

*Color*

In addition to a label indicating the level, color was used both to signal each different level and to provide some interest as the menus come up.

Care was taken to keep the colors unobtrusive, present but not
detracting from the menu. Accordingly each level was assigned a color. To keep the colors mild and pleasant to the eye the hue was made as pure as possible, following the computer's color scale, and chroma and hue were manipulated to lighten the colors. This operation “by the numbers” helped maintain continuity of color from one menu to the next, ensuring that the change from level to level would be visually smooth.

Modification of Taxonomy Form

In order to clearly differentiate levels, the taxonomic outline form was modified. A traditional taxonomy form is usually vertical and treelike, branching out as each category is further defined level by level. My revision of the chart involved changing it to a horizontal format. As well as being as clear as the vertical format and clearer than the outline form, this horizontal version proved more practical and easily readable in assigning colors, identifying menus and determining animation and still frame levels. It also took much less space. [One traditional format of this project was about 2' by 20'].

For the sake of development of graphics the horizontal format was acceptable and proved to be more legible than either the outline or vertical forms which had preceded it.
CONSTRAINTS/REALITIES

The major constraints of this thesis were subject, medium and time.

Subject

The subject, graphic design archive, necessitated a clear, simple design approach which would not detract from the purpose of the design: accessing images and information. Getting to the basics of good frame design required not giving in to the temptation and distraction of getting caught up in animation and design complexity. The subject also required that the frame designs be good graphic design which would complement the content of the videodisc project.

Medium

The medium, Genigraphics D+ and C computer system, did everything asked of it. A major problem was getting adequate time on the single D+ since it was in such heavy demand. Time needed for this thesis was gained because the computer graphics majors generously shared time and because permission was given by instructors.

The D+ was required to grab images, particularly the archive symbol and the studio, to manipulate animations in which the studio was used and to record all still frames. It was also needed for all video recordings of animations in order to maintain continuity of color.

The Genigraphics C was used for designing menu and text frames. It was helpful that the C was available as it enabled me to develop most of the menus when John Peterson and I were not able to work on the D+. 
Time

Time, particularly the number of hours needed to develop animations and still frames and the subsequent number of hours to record the images, presented the greatest challenge of this aspect of the project. This constraint brought about a midpoint decision not to finish a videotape of the animations for the thesis show.

Reproduction of Images

Since a videotape of the segments would have taken ten to twenty hours for set up, recording and probable reshooting of some frames, and since each segment was only three to ten seconds long, it seemed logical to present the sequences as a series of stills. These would, essentially, be a storyboard presentation as well as a visual linkage of the entire thesis. The video, more potentially important to the overall project, could be recorded later when equipment was more readily available. As it was, slide recording took as much time as videotaping would have so the decision to choose slides over taping was sound: given the time constraints, only one of these could have been completed and for the thesis show the stills gave the best overall representation of the project.

Another reality: prints made from slides of computer images proved an insurmountable problem for a local instant photography company. Although they did succeed, after two tries, in printing full frame, i.e., with borders (so they could be cropped by hand to their video format), the colors were never more than approximated for all of the object based art. After four attempts all prints with a solid background still did not have their original color and the “solid” color was shaded. In the case of series with identical background colors (by number and having been recorded in sequence on the same roll of film), no two prints were the same color. They did succeed in correctly printing the image of the studio environment.

36 see appendix, B4, menu animation sequence.
This experience was educational. The price of custom photographs is high. If photographs are necessary, custom reproductions should be planned for. Otherwise it is not a good idea to rely on photographic exposition of computer work unless slides can be shown satisfactorily.

To ensure clarity of prints it might also be necessary to create two versions of images that will be shown as prints. One will be fine for video or computer display. Another of different contrast will modify the soft-edged appearance which is characteristic of prints made from some higher level computers.

And finally: for some reason manufacturers of many computer systems have not worked out compatibility of their systems with video recorders. Any efforts to record a computer image should be done on a system which will show, as the image is being developed, compatibility of the image's colors with video signals, ensuring accuracy from the inception of the work.
IMMEDIATE SUGGESTIONS

Information Cards

Because there will be so much information available in the final state of the Graphic Design Archive on Videodisc it is not feasible that a user could remember everything about operation and content. It would be a very good idea to have a set of cards which would iterate procedures for interactive viewing as well as those for research/study. These cards could also include data elements and lists pertinent to the data base as well as key words and thesaurus. The disc's jacket itself could have the taxonomy on it so that research/study users would know what to input for specific information.

Network

An important concept for the Graphic Design Archive on Videodisc is establishing a network which would provide access to the disc from a number of centers throughout the country and possibly in Europe. Each of the centers could be connected with DEC's VAX* computer system at RIT so that information pertinent to designers and their work could be inputted and programs accessed.

This would enable scholars and designers as well as students and "laypersons" to share, on a broad and practical basis, information they have gained because of and through their individual expertise. It would also provide a means of dialogue which could involve any persons accessing the network and ensure accuracy of information as well as constant updates.

Such an arrangement would enrich any centers sponsoring the disc, as scholars and others would be in communication with and sharing the facilities of those locations.
Computer Interface

Now that videodisc application is expanding, more microcomputer manufacturers are looking at the possibility of interfacing their systems with videodisc systems. Exploration of this interface, particularly for educational and research applications, must be done both by computer and videodisc manufacturers. Such exploration is needed for the Archive to ensure that a network will be economically feasible as well as to provide a simple process of access and input for users with a variety of levels of computer literacy.

As is true of the graphic considerations of this thesis, the computer is a tool for efficiently accessing images and information—the means, not the end of the process. It is a valuable and necessary adjunct to the capability of the videodisc but it should be affordable and readily usable in order to increase the availability and convenience of such projects as the Archive.

Resolution/Definition

Another thing which keeps such visual projects as the Archive from their full potential is the North American NTSC* broadcast standard. The videodisc image is as clear as a 35 mm. slide. When shown on an NTSC standard monitor many details and words are lost because of the resolution.

Recently some companies have begun production of high definition systems that provide the vehicle necessary to give videodisc its identity and prove its value. These companies should explore their products' usability for research and education as well as for their major target, home entertainment.
OPPORTUNITIES

There is no doubt that videodisc has a number of applications which will ensure its continued need and use. Storage and retrieval, though important, do not by themselves fully utilize the potential of computer interface, since the computer itself has evolved from a record keeping monolith to a creative and more (artificially) intelligent tool. Optical scanning and image storage have, with the computer's aid, made it possible to retrieve not only whole files but, in the case of image storage for one, particular parts of file contents called up by bit words, key words or other associative means.

Interactivity enhances learning by directly involving and directing one or more participants. Rapid and random access* make possible such a variety of combinations of frames that many different programs can be created from a stock of images on a disc (still basically storage and retrieval but with more potential). It also facilitates use of the same frame more than once within a single program.

Pertinent to the Graphic Design Archive on Videodisc, all of this means that the very large resource of graphic design images and documents will be available and easily accessible on a disc or series of discs. Such a resource will provide, quickly and efficiently, information found within hundreds of books, thousands of slides and many private archives.

It will be usable by teachers, students, researchers, designers, archivists and historians. With the capabilities of networking it will encourage input of additional material and hopefully stimulate network discussion, all of which will become part of the Archive and therefore provide further resources.
The Graphic Design Archive on Videodisc is a first of its kind and has become a study of collecting, programming and designing. This thesis has added to that aspect of videodisc planning concerned with menu and frame design. It has made some discoveries and applied them and has contributed to the usability and application of the project. With the Archive it has tried and presented new ideas in order to increase the value of the overall project and its accessibility.
NOTES/DEFINITIONS

American Video Institute

Mission Statement of AVI: The American Video Institute (AVI) is an association of pioneering and diverse individuals within an educational institution (RIT). AVI programs are created in the process of learning and teaching the art and science of interactive communications which are intended to challenge the passive objectives of mass media entertainment and move them toward responsive information delivery systems that will ultimately enhance life. (Dr. John Ciampa, founder and director of AVI)

Attribute

A word that describes the manner in which a variable is handled by the computer. Within the Archive database, an attribute is a category shared by enough images that it can be used to group them and to narrow the data search. For example, an attribute is style. The computer is asked to find Bauhaus under Style and to list or show any images where this is true (that the image represents Bauhaus work). The computer does not need to search anywhere else but in this narrow field and therefore can more quickly and efficiently access that information.

Benching

Use of an optical bench to record images onto film or tape. Once all the pieces have been recorded (photographed, videotaped or filmed) these images will be copied onto a one inch tape from which a laser encodes the master disc. From this master disc subsequent discs are pressed.

Binary code

A coding system which pertains to a characteristic or property involving a choice or condition in which there are two possibilities. It is used within a context of Boolean algebra applied to the field of relay switching and electronic computers and is an important subject to logic design of electronic computers. A Boolean operator, in this context, is a logic operator, each of whose operands and whose result have one of two values.

Data base

A data base is the collection of all data used and produced by a computer program.

DEC

Digital Equipment Corporation provides computer systems and peripherals. Much of RIT's hardware is DEC's, including the extensive VAX system used throughout RIT.
Expert system

An expert system's success lies in its relationship to the computer program available. Coupled with an artificial intelligence (AI) it will be most effective. The non-Al program can rank input given by experts, assign values and then access images based on that input and assignment.

AI can go much further. Taking the input and ranking it would be part of an AI program also, but it could then take the information, evolve "rules" based on its assessment of the input and then evaluate new images and information.

In the case of the Archive, experts could "do" the prototype disc's 5000 images and AI could put that information together and apply it to the contents of other discs, saving generations of design experts years of their lives and providing information much faster.

Although expert systems are in use and being fine tuned all the time, AI is still in its infancy.

Grab

In computer graphics, to copy an image by use of a video or surveillance camera into a computer. Once grabbed, the image can be manipulated according to the capabilities of software developed for the particular computer system in use.

Key word

A significant and informative word which concisely describes or sums up a title or document and which provides a key for a computer's search for and identification of contents of a file or location of a category or image within a taxonomy or data base.

Network

In the context of the Graphic Design Archive on Videodisc, a complex of interconnected computers available to scholars, students, teachers and designers for study, reference and sharing of insights, information and ideas.

NTSC

National Television Standards Commission. Broadcast standard in North America and other places. It calls for 525 line scans per frame and produces less detail and resolution than PAL (Phase Alternating Line System), the broadcast standard in Europe and other places which calls for 625 line scans per frame. Although PAL is superior in quality to NTSC, neither has the superb quality of new high definition systems being developed.
Object-based art

Object-based art is based on a vector system in which the computer’s memory is involved in storage of the commands, coordinates and vectors which make up images. This is in contrast to the bit-map process by which a computer equates specific portions of its memory with each screen-visual pixel and associated color information. Each of these makes possible very high resolution graphics; object-based relying more on manipulation of shapes to “build” objects, bit-mapped enabling more detailed drawing and “painting.”

Random access

*Computer.* The process of obtaining data from or placing data into storage (memory) where the time required for such access is independent of the location of the data most recently obtained or stored.

*Videodisc:* The capability for the user to quickly pinpoint the location of an image or piece of information on a disc. On most videodisc players the maximum time to go from one image to another, even if these are numbers one and fifty thousand, is about two seconds. This facility makes possible a wide range of program and usage possibilities for images and information stored on a videodisc.

RDB

Relational Data Base. A data base program developed by DEC.

Semiotics

Semiotics is concerned with elements bearing meaning and intention in the process of human communication: the signs (letters and figures used as information carriers in the communication process). Simplified, semiotics is the study of everything that signifies.

Videodisc

As used and referred to in the context of this project, a nearly indestructible laminated metallic disc which has the capacity to hold 54,000 still images (on one side of a twelve inch disc) which are encoded by laser and read by laser-optics. In conjunction with computers, programs can be written which enable a user to participate in the programs in ways other than from start to finish, seeking images and information and even organizing these into presentations and study blocks.
GRAPHIC DESIGN ARCHIVE
ON VIDEODISC

ROCHESTER INSTITUTE OF TECHNOLOGY
A  SURVEY 12,000 BC TO PRESENT
B1  SURVEY 1928 TO 1970
B2  SURVEY 1960 TO PRESENT
C  CAVE MAN TO COMPUTER
D  SURVEY ARTICLES
E  DECEASED FOUNDERS A-J
E  DECEASED FOUNDERS K-Z
F1  LIVING FOUNDERS A-J
F1-2 LIVING FOUNDERS K-Z
F2  PAUL RAND
F2A  PAUL RAND
G  ESTABLISHED DESIGNERS A-J
G  ESTABLISHED DESIGNERS K-Z
H  EMERGING DESIGNERS A-J
H  EMERGING DESIGNERS K-Z
I  POLISH POSTER DESIGN/MISCELLANEOUS
J1  SIGNS
J2  THE SIGN GAME
J3  SIGNS
J4  SIGNS FROM THE SIGN GAME
### SURVEY 12,000 B.C. TO BAUHAUS

<table>
<thead>
<tr>
<th>A-1</th>
<th>1640-1930's</th>
<th>ADS, POSTERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-2B</td>
<td>1896-1912</td>
<td>MAGAZINES</td>
</tr>
<tr>
<td>A-4</td>
<td>1850's</td>
<td>19th CENTURY BRITISH WOOD TYPES</td>
</tr>
<tr>
<td>A-5</td>
<td>1864-1946</td>
<td>ALFRED STIEGLITZ</td>
</tr>
<tr>
<td>A-6</td>
<td></td>
<td>VARIOUS PHOTOGRAPHERS</td>
</tr>
<tr>
<td>A-7</td>
<td>1909</td>
<td>GROPIUS &amp; F. LOYD WRIGHT</td>
</tr>
<tr>
<td>A-9</td>
<td>1902-1925</td>
<td>ART NOUVEAU</td>
</tr>
<tr>
<td>A-10</td>
<td>1910-1915</td>
<td>FUTURISTS</td>
</tr>
<tr>
<td>A-11</td>
<td>1920's</td>
<td>DUCHAMP, MAN RAY, SCHWITTERS - DADA</td>
</tr>
<tr>
<td>A-12</td>
<td>1924-1950</td>
<td>SURREALISM</td>
</tr>
<tr>
<td>A-13</td>
<td>1911-1920</td>
<td>SUPREMATISM - KANDINSKY</td>
</tr>
<tr>
<td>A-14</td>
<td>1917-1931</td>
<td>DE STIJL</td>
</tr>
<tr>
<td>A-16A</td>
<td>1920</td>
<td>CONSTRUCTIVIST - EL LISSITSKY</td>
</tr>
<tr>
<td>A-16C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A-17</td>
<td>1920-1940</td>
<td>BAUHAUS</td>
</tr>
<tr>
<td>A-21</td>
<td></td>
<td>MOHOLY-NAGY</td>
</tr>
<tr>
<td>A-22A</td>
<td></td>
<td>VISION IN MOTION</td>
</tr>
</tbody>
</table>

### SURVEY AIZ TO PRESENT

<table>
<thead>
<tr>
<th>A-23</th>
<th>1920-1930</th>
<th>PHOTO MONTAGE (AIZ)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A-24</td>
<td>1913-1920</td>
<td>CONSTRUCTIVIST - MALEVICH, SCHWITTERS</td>
</tr>
<tr>
<td>A-25</td>
<td>1911-1930</td>
<td>MONDRAIN</td>
</tr>
<tr>
<td>A-26</td>
<td>1895-1920's</td>
<td>KLIMT, ARP, GABO</td>
</tr>
<tr>
<td>A-27</td>
<td>1904-1920</td>
<td>CEZANNE - CUBISTS</td>
</tr>
<tr>
<td>A-28</td>
<td>1890-1965</td>
<td>MATISSE - CHAGALL</td>
</tr>
<tr>
<td>A-29</td>
<td>1888-1919</td>
<td>LAUTREC/BONNARD</td>
</tr>
<tr>
<td>A-30</td>
<td>1920</td>
<td>TYPOGRAPHY OF THE 20's</td>
</tr>
<tr>
<td>A-31</td>
<td>1920</td>
<td>POLISH TYPOGRAPHY OF THE 20's</td>
</tr>
<tr>
<td>A-32</td>
<td></td>
<td>CONCRETE POETRY - APPOLINNAIRE</td>
</tr>
<tr>
<td>A-33</td>
<td>1920's</td>
<td>MALIK VERLAG</td>
</tr>
</tbody>
</table>
**SURVEY 1928 TO 1970**

<table>
<thead>
<tr>
<th>Code</th>
<th>Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1-2</td>
<td>1928</td>
<td>SOVIET FILM POSTERS</td>
</tr>
<tr>
<td>B1-3</td>
<td>1920's</td>
<td>ADS FROM THE 20's</td>
</tr>
<tr>
<td>B1-3A</td>
<td>1929</td>
<td>GERMAN/AMERICAN TYPOGRAPHY &amp; ADS-MCMURTRIE'S BOOK</td>
</tr>
<tr>
<td>B1-4</td>
<td>1920-1930's</td>
<td>NORMAN BEL GEDDES-LOEWY</td>
</tr>
<tr>
<td>B1-5</td>
<td>1930-1940's</td>
<td>ASSORTED IMAGERY</td>
</tr>
<tr>
<td>B1-6</td>
<td>1940's</td>
<td>FORTUNE COVERS/JEAN CARLU</td>
</tr>
<tr>
<td>B1-7</td>
<td>1940's</td>
<td>SUBWAY POSTERS</td>
</tr>
<tr>
<td>B1-8</td>
<td>1940's</td>
<td>CCA ADS-(MOHOLY-NAGY, LIONNI, RAND, ECT.)</td>
</tr>
<tr>
<td>B1-9</td>
<td>1951</td>
<td>PORTFOLIO MAGAZINE</td>
</tr>
<tr>
<td>B1-13</td>
<td>1950's</td>
<td>ARTHOR LIDOV</td>
</tr>
<tr>
<td>B1-14</td>
<td>1950-1968</td>
<td>ULM SCHOOL - GERMANY</td>
</tr>
<tr>
<td>B1-15</td>
<td>1950-1960's</td>
<td>LIFESAVER ADS</td>
</tr>
<tr>
<td>B1-18</td>
<td>1950's</td>
<td>MAGAZINE ADS</td>
</tr>
<tr>
<td>B1-19</td>
<td>1950's</td>
<td>CIBA ADS</td>
</tr>
<tr>
<td>B1-19</td>
<td>1958</td>
<td>ERIK NITSCH</td>
</tr>
<tr>
<td>B1-20</td>
<td>1953</td>
<td>BUCKMINISTER FULLER</td>
</tr>
<tr>
<td>B1-20</td>
<td>1960-1964</td>
<td>IBM &amp; OLIVETTI ADS</td>
</tr>
<tr>
<td>B1-21</td>
<td>1950-1960's</td>
<td>MAGAZINE ADS</td>
</tr>
<tr>
<td>B1-22</td>
<td>1963</td>
<td>AIGA SHOW</td>
</tr>
<tr>
<td>B1-23</td>
<td>1965</td>
<td>AGS BASEL</td>
</tr>
<tr>
<td>B1-30</td>
<td>1967</td>
<td>EXPO '67</td>
</tr>
<tr>
<td>B1-34</td>
<td>1960's</td>
<td>REVIVAL</td>
</tr>
<tr>
<td>B1-37</td>
<td>1969</td>
<td>ST. REGIS ADS</td>
</tr>
</tbody>
</table>
S U R V E Y  1 9 6 0  T O  P R E S E N T

B2-0  1920-1960  MC ESCHER
B2-1  1920-1960  TIME COVERS
B2-2  1960-1970's  ASSORTED ILLUSTRATION
B2-4  1970's  ASSORTED DESIGN
B2-5  1971  ROBERT INDIANA
B2-6  1971-1975  BEST SWISS POSTERS - ZURICH POSTERS
B2-7  1973  20 GREAT PROJECTS - ID MAGAZINE
B2-8  1973  GRAPHIC DESIGN - US UNIVERSITIES
B2-9  1974  AIGA SURVIVAL EXHIBIT
B2-10  1974  CANADIAN AD SHOW
B2-12  1975  CANADIAN GRAPHIC DESIGN SHOW
B2-13A  1976  FEDERAL DESIGN IMPROVEMENT PROGRAM
B2-14  1979  DESIGN & ART DIRECTION SHOW
B2-15  1979-1980  PLURALISTIC DESIGNERS
B2-16  1980  ID MAGAZINE PAGES
B2-17  1970-1980  GRAPHIS ARTICLE
B2-19  1980  COMPUTER GRAPHICS

C A V E M A N  T O  C O M P U T E R
CAVEMAN TO BAUHAUS - PART I

C A V E M A N  T O  C O M P U T E R
EL LISSITSKY - PART II

S U R V E Y  A R T I C L E S

D-1  1940-1980  The Graphic Revolution in America
                      40 Years of Typography 1940-1980
                      by Herb Lubalin in Print Magazine
D-3  1963  Typographic Directions
                      Trends in Visual Advertising
                      Gottschall and Lubalin 1963
D-8  1963  From Cave Painting to Comic Strip
                      by Lancelot Hogben
D-13  1963  The Avant Garde in Print
                      Arthur A. Cohen
D-18  1963  The Development of the Design Program
                      at the Container Corporation of America
                      (John Massey)
### Deceased Founders A-J

- E 00A in F. Agna
- E-0 Herbert Bayer
- E-1 Lester Beal
- E-1/2a Will Burtin
- E-3 A.M. Cassandre
- E-4 Lyonel Feininger
- E-4 William Golden
- E-6 Ives Norman
- E-2a Z. Podovitch

### Deceased Founders K-Z

- E-7 E. McKnight Kauffer
- E-9 Herb Lubalin
- E-10 Alvin Lustig
- E-22 Emil Ruder
- E-22a Emil Ruder
- E-23 Ladislav Sutnar
- E-30a Jan Tschichold

### Living Founders A-J

- F1-1 Hans Barschel
- F1-7 Saul Bass
- F1-13 Max Bill
- F1-16a Charles Coiner
- F1-17 Donald Deskey
- F1-18 George Gusti (Gusti)
- F1-20 Armin Hofmann

### Living Founders K-Z

- F1-22 Gyorgy Kepes
- F1-26 Walter Landor
- F1-28 Leo Lionni
- F2-1 Herbert Matter
- F2-5 Josef Muller-Brockman
- F2-15 Anton Stankowski
- F2-17 Bradbury Thompson
ESTABLISHED DESIGNERS A-J

IDEA MAGAZINE ESTABLISHED DESIGNERS

G-1  SURVEY
G-3  O. AICHER
G-4  JOHN ALCORN - BOOKS
G-8  IVAN CHERMAYEFF
G-9  RUDOLPH DE HARAK
G-11 LOU DORFSMAN
G-12 KARL GERSTNER

G-11E  G-14A  CHARLES EAMES
G-15  PUSH PIN STUDIOS - MILTON GLASER/CHWAST

G-14A  NORMAN IVES

ESTABLISHED DESIGNERS K-Z

IDEA MAGAZINE ESTABLISHED DESIGNERS

G-20A  YUSAKU KAMEKURA
G-21  KURT KRANZ
G-22  HELMET KRONE
G-23  PETER MAX
G-23  TOTAL DESIGN - WIM CROUWEL
G-24  JOHN MASSEY
G-26  GEORGE TSCHERNEY
G-28 -  RICHARD SAUL WURMAN
G-33  MASSIMO VIGNELLI
G-38  HENRY WOLF & SHOW MAGAZINE
G-41  YVES ZIMMERMAN
EMERGING DESIGNERS  A-J

IDEA MAGAZINE EMERGING DESIGNERS

H-3  BILL BONNELL
H-6  JANN CHURCH & JEFF BARNES POSTER
H-7  COOK & SHANOSKY
H-10A DAN FRIEDMAN
H-10B SHIGEO FUKUDA
H-11 J.M. FOLON
H-12 STEPHEN GEISSBUHLER
H-13 GOTTSCHALK & ASH
H-14 STEVE HOLLER

EMERGING DESIGNERS  K-Z

IDEA MAGAZINE EMERGING DESIGNERS

H-17  JERRY KUYPER
H-17A1 MARKUS J. LOW
H-17A  TOM MORIN
H-17B  MICHAEL PETERS & PARTNERS LIMITED
H-18  FRED TROLLER
H-19  CHRIS YANEFF
H-20  WEINGART
The Graphic Design History Videodisc Archive Project

Medium

Artist

Period

Country (birth of artist or origin of work)

- Drawn/Printed Impressions
- Signage
- Typeface Design
- Computer Graphics
- Dimensional Graphics
- Moving Image (film/title, etc.)

1. Information Graphics
2. Organization Graphics
3. Poster
4. Periodicals
5. Book
6. Photography/graphics
7. Computer Generated

Guideline Items for Categories 1-7 (Drawn/Printed Impressions)

<table>
<thead>
<tr>
<th>Information Graphics</th>
<th>Organization Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>maps</td>
<td>letterheads</td>
</tr>
<tr>
<td>charts</td>
<td>cards</td>
</tr>
<tr>
<td>graphs</td>
<td>envelopes</td>
</tr>
<tr>
<td>diagrams</td>
<td>forms</td>
</tr>
<tr>
<td>exhibits</td>
<td>reports</td>
</tr>
<tr>
<td></td>
<td>brochures</td>
</tr>
<tr>
<td></td>
<td>identity programs</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Poster</th>
<th>Periodicals</th>
<th>Book</th>
</tr>
</thead>
<tbody>
<tr>
<td>typographic</td>
<td>newspapers</td>
<td>general trade</td>
</tr>
<tr>
<td>photographic</td>
<td>magazines</td>
<td>special trade</td>
</tr>
<tr>
<td>hand graphics</td>
<td>journals</td>
<td>limited edition &amp;</td>
</tr>
<tr>
<td>combination media</td>
<td></td>
<td>fine private press</td>
</tr>
<tr>
<td></td>
<td></td>
<td>books</td>
</tr>
<tr>
<td></td>
<td></td>
<td>textbooks</td>
</tr>
<tr>
<td></td>
<td></td>
<td>juvenile</td>
</tr>
<tr>
<td></td>
<td></td>
<td>paperback</td>
</tr>
<tr>
<td></td>
<td></td>
<td>non-traditional</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Photography/graphics</th>
<th></th>
<th>Computer Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>photographs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>portraits/surroundings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mix media</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Actual Archival Items in Categories 1-7 (Drawn/Printed Impressions)

<table>
<thead>
<tr>
<th>Information Graphics</th>
<th>Organization Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>maps</td>
<td>letterheads</td>
</tr>
<tr>
<td>charts</td>
<td>cards</td>
</tr>
<tr>
<td>graphs</td>
<td>envelopes</td>
</tr>
<tr>
<td>diagrams</td>
<td>forms (business, etc.)</td>
</tr>
<tr>
<td>labels</td>
<td>reports</td>
</tr>
<tr>
<td>money</td>
<td>brochures</td>
</tr>
<tr>
<td>design forms (patterns, etc.)</td>
<td>identity programs</td>
</tr>
<tr>
<td>type design (alphabets)</td>
<td>invitations</td>
</tr>
<tr>
<td>signs</td>
<td>postcards</td>
</tr>
<tr>
<td>billboard</td>
<td>folders</td>
</tr>
<tr>
<td>ads</td>
<td>flyers</td>
</tr>
<tr>
<td>newspaper</td>
<td>business cards</td>
</tr>
<tr>
<td>magazine</td>
<td>catalogues</td>
</tr>
<tr>
<td>design experiments</td>
<td>pamphlets</td>
</tr>
<tr>
<td>articles (pertaining to category)</td>
<td>annual reports</td>
</tr>
<tr>
<td>books</td>
<td>-pages</td>
</tr>
<tr>
<td></td>
<td>-covers</td>
</tr>
<tr>
<td></td>
<td>corporate catalogues</td>
</tr>
<tr>
<td></td>
<td>-pages</td>
</tr>
<tr>
<td></td>
<td>-covers</td>
</tr>
<tr>
<td></td>
<td>corporate identity program manuals</td>
</tr>
<tr>
<td></td>
<td>-Westinghouse</td>
</tr>
<tr>
<td></td>
<td>-Ford</td>
</tr>
<tr>
<td></td>
<td>-Bell</td>
</tr>
<tr>
<td></td>
<td>(by Paul Rand)</td>
</tr>
<tr>
<td></td>
<td>manuals on graphics</td>
</tr>
<tr>
<td></td>
<td>booklets</td>
</tr>
<tr>
<td></td>
<td>articles (pertaining to category)</td>
</tr>
<tr>
<td>Poster</td>
<td>Periodicals</td>
</tr>
<tr>
<td>typography</td>
<td>magazine covers</td>
</tr>
<tr>
<td>photography</td>
<td>-AIZ</td>
</tr>
<tr>
<td>hand graphics</td>
<td>-Art &amp; Architecture</td>
</tr>
<tr>
<td>combination media</td>
<td>-Art Direction</td>
</tr>
<tr>
<td>articles</td>
<td>-Fortune</td>
</tr>
<tr>
<td>drawn impression</td>
<td>-Graphis</td>
</tr>
<tr>
<td>product</td>
<td>-Holiday</td>
</tr>
<tr>
<td>travel</td>
<td>-ID</td>
</tr>
<tr>
<td>corporate</td>
<td>-Jugend</td>
</tr>
<tr>
<td>subway</td>
<td>-Perspective</td>
</tr>
<tr>
<td>film (Saul Bass)</td>
<td>-Portfolio</td>
</tr>
<tr>
<td>designer (student posters)</td>
<td>-Scope</td>
</tr>
<tr>
<td>Bauhaus</td>
<td>-Show</td>
</tr>
<tr>
<td>Bauhaus time period (appearance of design)</td>
<td>-Staff</td>
</tr>
<tr>
<td>messages</td>
<td>-Time</td>
</tr>
<tr>
<td>billboard</td>
<td>-Vanity Fair</td>
</tr>
<tr>
<td></td>
<td>-Vogue</td>
</tr>
<tr>
<td></td>
<td>-miscellaneous</td>
</tr>
<tr>
<td></td>
<td>-pages (miscellaneous)</td>
</tr>
<tr>
<td></td>
<td>newspapers</td>
</tr>
<tr>
<td></td>
<td>-pages</td>
</tr>
<tr>
<td></td>
<td>-covers</td>
</tr>
<tr>
<td>Book</td>
<td>Photography/graphics</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>------------------------------------------</td>
</tr>
<tr>
<td>Bauhaus designer</td>
<td>designer portraits/surroundings</td>
</tr>
<tr>
<td>yearbooks</td>
<td>Bauhaus</td>
</tr>
<tr>
<td>projects</td>
<td>-individuals</td>
</tr>
<tr>
<td>designer wrote &amp; designed covers</td>
<td>-group</td>
</tr>
<tr>
<td>jackets</td>
<td>-buildings/rooms</td>
</tr>
<tr>
<td>album covers</td>
<td>photographs</td>
</tr>
<tr>
<td>catalogues</td>
<td>mix media</td>
</tr>
<tr>
<td>pages (miscellaneous)</td>
<td></td>
</tr>
</tbody>
</table>

**Computer Generated**

- covers
- designer work
- articles (Arron Marcus)

**Actual Archival Items in Categories 1-3 (Dimensional Graphics)**

<table>
<thead>
<tr>
<th>Packaging</th>
<th>Exhibit</th>
<th>Architectural Graphics</th>
</tr>
</thead>
<tbody>
<tr>
<td>companies</td>
<td>individual</td>
<td>designer</td>
</tr>
<tr>
<td>products</td>
<td>group</td>
<td>group</td>
</tr>
<tr>
<td>firms</td>
<td>trade show</td>
<td>miscellaneous</td>
</tr>
<tr>
<td></td>
<td></td>
<td>wall graphics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>building graphics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-interior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-exterior</td>
</tr>
<tr>
<td></td>
<td></td>
<td>signage</td>
</tr>
</tbody>
</table>
New Guideline Categories for 1-7 (Drawn/Printed Impressions)

**Information Graphics**

- maps
- charts
- graphs
- diagram
- labels
- design forms (patterns, design experiments, etc.)
- symbols
- ads
  - newspaper
  - magazine

**Organization Graphics**

- cards
  - business cards
  - postcards
- envelopes
- letterheads
- invitations
- flyers
- folders
- forms (business, corporate, etc.)
- brochures
- pamphlets
- reports
  - general
  - annual reports
- covers
- pages
- catalogues
  - corporate catalogues
    a. covers
    b. pages

identity programs (business, corporate, etc.)
- corporate identity program manuals
  a. Westinghouse
  b. Ford (Paul Rand)
  c. Bell Telephone
- booklets
Poster
product
travel
corporate
subway
billboard
film (Saul Bass) RIT Collection
designer (student posters) RIT Collection
Bauhaus
message

Periodicals
magazine covers
- AIZ
- Art & Architecture
- Art Direction
- Fortune
- Graphic
- Holiday
- ID
- Jugend
- Perspective
- Portfolio
- Scope
- Show
- Staff
- Time
- Vanity Fair
- Vogue
- miscellaneous
pages
newspaper
- covers
- pages
journals
- Monthly Graphic
- Public Relations Journal
- Harpers Weekly
- almanac
- comics

Books
general trade
special trade
limited editions & fine private press
textbooks
juvenile
paperback
non-traditional

articles (information in section)
album covers

articles (information in section)
designers (life/work)
studios
time periods
subject matter (miscellaneous)
Photography/graphics
- designer portraits/surroundings
  - Bauhaus
    - a. individuals (instructors, students, etc.)
    - b. group
    - c. buildings/rooms
- photographs
- mix media

Computer Generated
- covers
- designers work

New Guideline Categories for 1-3 (Dimensional Graphics)

Packaging
- companies
- product
- firm

Exhibit
- individual
- group
- trade show

Architectural Graphics
- surface graphics
- building graphics
  - interior
  - exterior
- miscellaneous

New Guideline Categories for 1-3 (Dimensional Graphics)

Film
- filmage (subject: dimension) RIT Collection

New Guideline Categories for (Typeface Design)

Letter design
- K-study (Jerry Kuyper) RIT Collection

Alphabet Design
- woodcut
- metal
## Pioneers of 20th Century Graphic Design

### Archive Development DRAFT

<table>
<thead>
<tr>
<th>Pioneer Designer</th>
<th>Contact</th>
</tr>
</thead>
</table>
| Alvin Lustig     | Elaine Lustig Cohen  
|                  | Arthur Cohen |
| Lester Beall     | Johanna Beall Westermann  
|                  | Dorothy Beall |
| Will Burtin      | Cipe Pineles Burtin  
|                  | Carol Burtin Fripp |
| William Golden   | Cipe Pineles Burtin |
| Dr. M.F. Agha    | Cipe Pineles Burtin (?) |
| Charles Coiner   | Charles Coiner |
Graphic Design Archive on Videodisc
Rochester Institute of Technology

Proposed International Graphic Design Archival Network

Database Central
Rochester Institute of Technology
R. Roger Remington
Department of Graphic Design
One Lomb Memorial Drive
Rochester NY 14623-0887
USA

European Terminal
Norwich School of Art
Dr. Chris Mullen
Department of Design
St. George Street
Norfolk NR31BB
ENGLAND

Canadian Terminal
Dr. Ann Smith
Sheridan College of Art & Design
University of Toronto
8 St. Thomas Street
Toronto, Ontario, M532B8
CANADA

United States Terminal
Ellen Lupton
The Cooper Union
The Herb Lubalin Study Center of Design & Typography
Cooper Square
New York NY 10003
USA

Proposed Additional Terminals in USA:

Dr. Victor Margolin
University of Illinois at Chicago
School of Art & Design
Box 4348
Chicago IL 60680
USA

Philip Meggs
Virginia Commonwealth University
Department of Communication Arts & Design
325 N. Harrison Street
Richmond VA 23284
## Graphic Design Archive on Videodisc

### Phases

<table>
<thead>
<tr>
<th>Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>To complete the prototype Graphic Design Archive on Videodisc.</td>
</tr>
<tr>
<td>2</td>
<td>To enlarge the scope of the Graphic Design Archive on Videodisc and make it operational.</td>
</tr>
<tr>
<td>3</td>
<td>To fully institutionalize the archive as resource network center.</td>
</tr>
</tbody>
</table>

### Goals

- To enhance education and training and extend project.
- To assemble and organize archival material currently at PD.
- To organize the format of the collection.
- To prepare appropriate narrative and captions.
- To improve the prototype as an example of the expected end result.
- To use the prototype to assist in acquiring funds for future phases of the project.
- To develop software for the videodisc.
- To evaluate the disks for the videodisc.
- To maintain appropriate evaluation activities.

### Project Dates

<table>
<thead>
<tr>
<th>Year</th>
<th>Phase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986-87</td>
<td>a</td>
<td>1,500 images on disc.</td>
</tr>
<tr>
<td>1987-88</td>
<td>b</td>
<td>Add 15,000 images to database (20,000 total).</td>
</tr>
<tr>
<td>1988-89</td>
<td>c</td>
<td>Add 15,000 images to database (35,000 total).</td>
</tr>
<tr>
<td>1989-90</td>
<td></td>
<td>Add 15,000 images to database (50,000 total).</td>
</tr>
<tr>
<td>1991 and beyond</td>
<td></td>
<td>To secure funds to continue expansion of image bank.</td>
</tr>
</tbody>
</table>

### Development Activities

- To ensure that archival material is secured for documentation.
- To prepare appropriate narrative and captions.
- To improve the prototype as an example of the expected end result.
- To use the prototype to assist in acquiring funds for future phases of the project.
- To develop software for the videodisc.
- To evaluate the disks for the videodisc.
- To maintain appropriate evaluation activities.

### Software Activities

- To examine images for the software.
- To develop software for the videodisc.
- To evaluate the disks for the videodisc.
- To maintain appropriate evaluation activities.
The Graphic Design Archive on Videodisc is an interactive database of visual and text frames of information from the history of graphic design. Through its "expert system," the videodisc will be driven by a computer program with a vast store of specialized knowledge about graphic design. The user will be able to interact with the images and text for educational and research purposes. The database's primary focus is on the work of the European avant-garde artists (Dada, Futurism, Bauhaus, etc.) and the American graphic design pioneers of the 1930's and 1940's (Beall, Lustig, Burtn, etc.); however, as a historical foundation, it also contains materials from graphic design, art, photography, advertising, typography and printing.

At the time of this writing the prototype videodisc has been made and work is progressing on the interactive software. Included on the prototype disc are 5000 frames of historical examples from graphic design. Also work is underway on the identification of the 5000 frames on the prototype disc, refinement of the special organizational "taxonomy" by which the frames are ordered, selection of generic key words from graphic design that will become the evaluative and assessment part of the "expert system," planning and design of a marketing/communications program for the videodisc, the acquisition of actual archival materials of one American design pioneer and the articulation of a comprehensive development plan for the Archive that will expand systematically to 50,000 frames by 1990.

Even though the project is still in the prototype phase, international recognition has been given to the Archive. The American Institute of Graphic Arts (AIGA), the professional advocacy organization for graphic designers, has included an article, "The Videodisc: Preservation and Retrieval" in its last 1985 issue. Also an article, titled "RIT plans videodisc archive," is included in the February, 1986 newsletter of the International Congress of Graphic Design Associations (ICOGRADA).

R. Roger Remington
Project Director

Department of Graphic Design
College of Fine & Applied Arts
Rochester Institute of Technology
Rochester NY 14623-0887

March 1, 1986
A. **STRUCTURE**

1. Does the example evidence **point** in its visual articulation?

2. Is line a visual element in the example?
3. Has the designer used a **single curve** in the example?
4. Has the designer used a **compound curve** in the example?
5. Has the designer used a **hyperbolic curve** in the example?
6. Has the designer used a **concave curve** in the example?
7. Has the designer used a **convex curve** in the example?
8. Has the designer used a **natural curve** in the example?
9. Has the designer used a **geometric curve** in the example?

10. Is shape used in the visual?
11. Has the designer been conscious of **edge** in the use of shape?
12. Is there evidence in the example that its designer has considered the overall **configuration** of form?

13. Is rhythm evident in the design elements?
14. Are the visual **kinetics** of an **active type**?
15. Are the visual **kinetics** of a **passive type**?
16. Are the visual **kinetics** of a **sequential type**?

17. Does the example imply a **two-dimensional volume**?
18. Does the example utilize an **actual three-dimensional volume**?
19. Does this three-dimensional example show concern for angle **visibility**?

20. Has space been a considered visual element in the example?
21. Does the designer evidence consideration for **size** in the visual elements?
22. Does the designer evidence consideration for **position** in the visual elements?

23. Does the piece evidence a balance of both **unity** and **contrast**?
24. Are the elements in the image **unified**?
25. Has the designer applied **contrast** to the design?
20. Does the example show application of a textural organizing principle?
21. Does the example show application of a patternistic organizing principle?
22. Does the example show application of a skeletal organizing principle?
23. Does the example show application of a compositional organizing principle?
24. Does the example show application of a constructional organizing principle?
25. Does the example show application of a typographic unit grid organizing system?
26. Does the example show application of a combination of organizing principles?

34. Is there evidence that the designer used regular quantity units in developing visual relationships?
35. Is there evidence that the designer used irregular quantity units in developing visual relationships?
36. Is there evidence that the designer used progressive quantity units in developing visual relationships?

32. Has the designer used texture in this image?
33. Are the elements in the image arranged in such a way that they have a perceivable density?

37. Does it appear that the designer was concerned with relationships of elements in this image?

95. Has the designer used a color scheme?
89. Is a color system used?

38. Does the piece show consideration for the hue of the color used?
39. Does the piece show consideration for the value of the color used?
40. Does the piece show consideration for the intensity of the color used?
41. Has the designer created forms which imply a transparent effect?
42. Has the designer created forms which imply an effect of opacity?
96. Does the example use simultaneous contrast in its color configuration?

43. Does the composition show consideration for proportion of the elements?
44. Is the composition symmetrical in organization?
45. Is the composition asymmetrical in organization?
46. Has the designer used **letterform** in this piece and if so has consideration been given to the **style** of the letter?
47. Has the designer used **letterform** in this piece and if so has consideration been given to the **weight** of the letter?
48. Has the designer used **letterform** in this piece and if so has consideration been given to the **posture** of the letter?
49. Has the designer used **letterform** in this piece and if so has consideration been given to the **size** of the letter?
50. In using typography in this piece, has the designer considered the **style** of the typeface?
51. In using typography in this piece, has the designer considered the **posture** of the typeface?
52. In using typography in this piece, has the designer considered the **line spacing** of the type?
53. In using typography in this piece, has **letterspacing** been applied?
54. In applying typography to this piece, has **word spacing** been used?
55. In applying typography to this piece, has the **column width** been considered?
56. In applying typography to this image, has the **size** of the type been considered?
57. In applying typography to this image, has the **weight** of the type been considered?
58. Has the **kerning** of the typography been considered?
59. In designing the typography for this piece, has the designer considered the indentation of the paragraphs?
60. Are **families** of **typefaces** used?

61. Does this image contain a **black and white continuous tone photograph**?
62. Does this image contain a **color photographic element**?
63. Does this image show use of a **photographic montage**?
64. Does this image show use of a **photographic collage**?
65. Does this image show application of a **high-contrast photograph**?
66. Does this design show use of imagery that has been manipulated with **photo-mechanical effect**?

67. Has the designer used **black and white illustration** in the example?
68. Has the designer used **color illustration** in the example?
69. Is a linear, shaded sketch technique used in the piece?
69. Has the visualizer used an orthographic projection in the image?
70. Has the visualizer used an oblique drawing projection in the image?
71. Has the visualizer used an isometric projection in the image?
72. Has the visualizer used one point perspective in the image?
73. Has the visualizer used two point perspective in the image?
74. Has the visualizer used three point perspective in the image?
75. Has the visualizer used exploded views in the image?

76. Does the example show consideration for perceptual principles and specifically figure/ground relationship?
77. Does the example show consideration for perceptual principles and specifically common contour?
78. Does the example show consideration for perceptual principles and specifically proximity?
79. Does the example show consideration for perceptual principles and specifically similarity?
80. Does the example show consideration for perceptual principles and specifically continuity?
81. Does the example show consideration for perceptual principles and specifically closure?
82. Does the example show consideration for perceptual principles and specifically isomorphic correspondence?

97. Does this image have emotional force generated by repetition?
83. Has the visualizer used a translation in the design?
84. Does the piece show a clear center of interest?
85. Are there networks used in the design?

55. Is the subject matter of this piece treated in a thematic way?
51. Does this piece show a sequential, chronological approach to its subject matter?
56. Does it appear that the designer used a systematic methodology in creating this image?
57. Does it appear that the designer used an intuitive methodology in creating this image?
58. Does it appear that the designer applied a step-by-step problem-solving methodology in making this example?
93. Was research necessary to properly solve this problem?

94. Did this example involve the making of a model?
92. Is this design and its visual elements capable of systematic application for a variety of interrelated concepts?
91. Does this design seriously contradict existing standards or conventions?
3. **MEANING**

1. Does the example evidence that the designer was working from coherent marketing _objectives_?

28. Is this example primarily a marketing-oriented solution?

29. Is this example primarily an information-oriented solution?

50. Does this example have "soul"?

60. Does the example show ambiguity?

61. Does the example evidence metaphor and metaphorical thinking?

74. Does this example show iconic image reference(s)?

75. Does this example show indexic image reference(s)?

76. Does this example show symbolic image reference(s)?

3. In designing a _verbal symbol_, has the designer used a _written_ character?

4. In designing a _verbal symbol_, has the designer used an _abbreviation_?

5. In designing a _verbal symbol_, has the designer used an _initial_?

6. Does the design of this _icon_ (sign with certain similarity to object), use an _iconic sign referring to the product_?

7. Does the design of this _icon_ use a _metaphorically applied sign_?

8. Does the design of this _mark_ (a sign which is semantically open), use a _figurative element_?

9. Does the design of this _mark_ utilize a _brightly colored element_?

10. Does the symbol appear as an _emblem_ (coat of arms) for private applications?

11. Does the symbol appear as an _emblem_ for public applications?

53. Does this image deal with a concern for the development of _design theory_?

54. Is this example clearly representative of a _style_ of design?

73. Does this example show an _identifiable_ style?
2. Does the visual form contribute to a clear message?

12. Does the message contain highly informational materials?
13. Is the message more aesthetic in nature?
14. Is the message contained in abstract form?
15. Is the message contained in symbolic form?
16. Does the visual form contribute totally to the communication of the intended message?

40. Does the form represent the message?
41. Is it easy to understand the message that the design denotes?
42. Do people from various cultures understand the design?
43. Do people of various age understand this design?
44. Is this style of imagery widely accepted?
45. Does the design contain elements that are unrelated to the message?
46. Does this piece show the designers ability at combining concepts and facts from the humanities, the natural and social sciences and technology?
47. Does this piece communicate verbally as well as visually?

39. Does the design evoke the social and cultural milieu?
59. Does the subject matter in this example suggest interrelationships of persons, their environment and their products?
78. Is this image relevant?

58. Does this piece strongly identify with a given medium of communication?

77. Does the image suggest qualities of humor or play?

FUNCTION

1. Are all the elements in the piece legible?
2. Does the design appear to be adaptable?
3. Does the image appear distinctive?
4. Does the design possess a quality of timelessness?
5. Is there a clarity of visual priorities in the piece?
6. Is there a relationship evident between the production qualities and the communication objectives and the costs involved?
7. Can the design be easily updated?
8. Is the organization easily learned and remembered?
9. Is the design seriously affected by poor lighting conditions, oblique viewing angles, and other visual noise?
10. Is the design vulnerable to vandalism?
11. Is the image difficult to reproduce?
12. Is this example one piece in a series?
13. Is the folding, binding and finishing proper for this concept?
14. Could the computer have been utilized as a tool in the design of this piece?
15. Did this piece require the collaboration of other specialists?
16. Has the designer considered the context in which this piece is to function?
STRUCTURE
1. Is line a visual element in the example?
2. Is shape used in the image?
3. Is rhythm evident in the design elements?
4. Does the piece evidence use of unity and contrast?
5. Does the example show application of an organizing principle?
6. Has the designer implied spatial qualities in this example?
7. Does it appear that the designer was concerned with orientation of elements in this image?
8. Has color been utilized purposefully in this example?
9. Does the example show consideration for perceptual principles?
10. Does it appear that the designer used a systematic or intuitive problem-solving process in making this example?
11. Are variables of typography applied?

MEANING
12. Is this example primarily a marketing-oriented solution?
13. Is this example primarily an information-oriented solution?
14. Does this example show an identifiable style?
15. Does the image reflect the social and cultural milieu of its time?
16. Does this example show iconic image reference(s)?
17. Does this example show indexic image reference(s)?
18. Does this example show symbolic image reference(s)?

19. Does this image appeal to an underlying need for sex or power?

FUNCTION

20. Is the design significant beyond the period of any relevant trend?

21. Is there a clarity of visual priorities in the piece?

22. Are all the elements in the piece legible?
A. STRUCTURE (SYNTAX)

1. Visual Variables
   a. size
   b. value
   c. texture
   d. color
      1) hue
      2) value
      3) intensity
      4) transparency
      5) opacity
   e. orientation
   f. shape

2. Line

3. Rhythm

4. Kinetics

5. Volume
   a. flat
   b. 3-dimensional

6. Space

7. Unity

8. Contrast

9. Interval units
   a. regular
   b. irregular
   c. progressive

10. Density

11. Proportion

12. Symmetry

13. Asymmetry

14. Letterform
   a. style
   b. weight
   c. posture
   d. size

15. Typography
   a. line spacing
   b. letter spacing
   c. word spacing
   d. column width
   e. size
   f. weight
   g. kerning
   h. indentation

16. Perceptual principles
   a. figure/ground
   b. common contour
   c. proximity
   d. similarity
   e. continuity
   f. closure
   g. isomorphic correspondence

17. Photograph

18. Illustration

19. Visual translation

20. Center of interest

21. Networks

22. Sequential

23. Problem solving

B. MEANING (SEMANTICS)

1. Marketing objective

2. Information oriented

3. Ambiguity

4. Metaphor

5. Iconic

6. Indexic

7. Symbolic

8. Design theory

9. Design style

10. Aesthetic

11. Abstract

C. FUNCTION (PRAGMATICS)

1. Legible

2. Adaptable

3. Distinctive

4. Timeless

5. Visual priorities
A. STRUCTURE (SYNTAX) composition, configuration, visual formalism, grammar, scaffolding, network, architecture.

1. VISUAL VARIABLES properties, elements
   a. SIZE area, dimensions, proportion, measurement, bigness, smallness, scale, measure, amount, quantity, ration, number.
   b. VALUE tone, shade, tint, darkness, lightness.
   c. TEXTURE grain, tactile, density, pattern.
   d. COLOR hue, pigment
      1) HUE color
      2) VALUE tone, tint, shade, lightness, darkness
      3) INTENSITY saturation, strength, brilliance, brightness, chroma
      4) TRANSPARENCY translucence, lightness, depth, show through
      5) OPCITY opaque, flatness, density, solid
   e. ORIENTATION position, scheme, layout, organization
   f. SHAPE form, mass, size, configuration, object, 3-D, figure, ground
2. LINE network, stripe, streak, band, rule, bar, stroke
3. RHYTHM measure, regularity, interval, beat, repetition, uniformity, irregularity, pattern
4. KINETICS activated, motion, action, energy
5. VOLUME mass, shape, size, planes, ground, openness, negative space
   a. FLAT 2-D, thin, level, deflated
   b. 3-DIMENSIONAL actualness, depth, inflated shape
6. SPACE depth, perspective, shallow, deep, interval, ground, surface area, format, spread, page
7. UNITY whole, harmony, equilibrium, equal, balance, symmetry
8. CONTRAST asymmetry, versus, opposite, black and white, difference, odds, polarities, imbalance
9. INTERVAL UNITS quantity units, organization, rhythmic units, methodology, scheme, sequence, procedure
   a. REGULAR predictable, symmetric, uniform, even, consistent, measured, normal, fixed
   b. IRREGULAR unpredictable, random, experimental, asymmetric, erratic
   c. PROGRESSIVE greater than, less than, sequential step
10. DENSITY thickness, opacity, translucence, weight, grain, texture, tone, denseness
11. PROPORTION scale, ratio, relation, organization, balance
12. SYMMETRY equality, evenness, regularity, balance, harmony, unity, formal, traditional
13. ASYMMETRY informal, contrast, imbalance, white space, ground, avant garde, uneven
14. LETTERFORM alphabet, serif, sans serif, type, character, font
   a. STYLE family, font, form, black letter, transitional, square serif, script, old style, modern, sans serif, decorative
   b. WEIGHT medium, regular, bold, light, demibold, extra bold, extra light, extra black
   c. POSTURE italic, condensed, extended
   d. SIZE text, body type, heads, display, reader type, scale, point size, length, measure, height, width, em, en
15. TYPOGRAPHY letterform, typeface, style
   a. LINE SPACING leading
   b. LETTER SPACING kerning, character spacing
   c. WORD SPACING em, en
   d. COLUMN WIDTH margins, line measure, centered, pica, agate, flush left, flush right, justified, ragged
   e. SIZE text, body type, point, heads, display, reader type, scale, point size, length, measure, height, width, em, en. undersized, column depth
f. WEIGHT medium, regular, bold, light, demibold, extra bold, extra light, extra black

g. INDENTATION paragraph, tab, run around

16. PERCEPTUAL PRINCIPLES gestalt, organizing principle, grouping
   a. FIGURE/GROUND positive and negative space
   b. COMMON CONTOUR invisible line, edge
   c. PROXIMITY space, group, relativity, nearness, closeness, grouping
   d. SIMILARITY likeness, sameness, resemblance
   e. CONTINUITY unity, axis
   f. CLOSURE form completion, imaginary line
   g. ISOMORPHIC CORRESPONDECE emotional, symbolic

17. PHOTOGRAPH picture, tonal image, photographic image, continuous tone, high contrast, zone system, halftone

18. ILLUSTRATION drawing, painting, photograph, color, line, spot, multimedia, collage, sketch, picture, composite

19. VISUAL TRANSLATION abstraction, black and white drawing, form analysis

20. CENTER OF INTEREST point of action, focal point

21. NETWORKS system, connections, lines, correspondence, patterns

22. SEQUENTIAL progression, progressive, incremental

23. PROBLEM SOLVING process, systematic, methodology, approach, intuitive, system

B. MEANING(SEMANTICS) message, reference
   1. MARKETING OBJECTIVE sales, commercialism, promotion, materialism, priorities, methodology, process
   2. INFORMATION ORIENTED inherent, clarity, propaganda, explanation, functional, legible
   3. AMBIGUITY confusion, incoherence, multipurpose, interesting, absorbing, open interpretation, eye catching, puzzling, enigmatic
   4. METAPHOR redefinition, analogy, poetic appraisal, symbol, comparison
   5. ICONIC representation, picture
   6. INDEXIC pointer, interpretation, trace, visual artifact
   7. SYMBOLIC abstract, interpretation, referent, symbol, icon, semantic
   8. DESIGN THEORY scheme, style, plan, concept, structure, principles, formalism, hypothesis, methodology
   9. DESIGN STYLE appearance, character, quality, approach, mode, manner, fashion, school, camp, theory, form of expression, method, period
   10. AESTHETIC beauty, sophistication, embellishment, adornment, artistic, formal
   11. ABSTRACT unclear, ambiguous, interpretation, tangential, non-objective, simplified, subjective, symbolic, simultaneity

C. FUNCTION(PRAGMATICS) workable, details, practicality, task, nitty-gritty, objective
   1. LEGIBLE clear, coherent, readable
   2. ADAPTABLE versatility, readjustment, acceptance, flexible, multi-use, changeable, functional
   3. DISTINCTIVE timeless, unusual, notable, separate, unique, special, one of a kind, renowned, individual
   4. TIMELESS distinct, ageless, infinity, enduring, permanent, eternal, impeccable
   5. VISUAL PRIORITIES variables, element properties, process, methodology, ranking, order, structure
DESIGNER

I - INFORMATION ABOUT THE DESIGNER'S LIFE

A. Philosophy
B. Persona
C. Education
D. Work
E. Problem-solving
F. Clients
G. Miscellaneous

II - SURVEY OF SELECTED DESIGNER'S WORK
(Overview)

III - TYPE OF WORK (Medium)

IV - SPECIFIC TIME PERIOD OF DESIGNER'S WORK (Date)

V - GEOGRAPHIC ORIGIN OF DESIGNER'S WORK (Location)

VI - FORMS FROM THE DESIGNER'S ARCHIVE

A. Correspondence to the designer
B. Correspondence from the designer
C. Professional activities of the designer (Original AND reproduced materials)
D. Writings by the designer
E. Speeches by the designer
F. Other presentations by the designer
G. Writings by others about the designer
H. Photographs of the designer
I. Personal materials and memorabilia
J. Awards, Honors, Citations
K. Miscellaneous Materials

SURROUNDINGS

M. SIGNATURES
N. GROUPS PHOTOS
O. LOCATION
GRAPHIC DESIGN VIDEODISC ARCHIVE

Frame Number

Taxonomy Number

Designer

Date

Location
Slide Number
Frame Number
Taxonomy Number
Designer/Artist
Design/Art Director
Date Produced
Country of Origin
Title
Media
Size
Copyright Holder
Other Archival Information
### STYLES

<table>
<thead>
<tr>
<th>Style</th>
<th>Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victorian</td>
<td>1865-</td>
</tr>
<tr>
<td>Impressionism</td>
<td>1874-</td>
</tr>
<tr>
<td>Jugend-Secession-Art Nouveau</td>
<td>1890-1910</td>
</tr>
<tr>
<td>Pictorial Modernism</td>
<td>1900-</td>
</tr>
<tr>
<td>Expressionism</td>
<td>1905-</td>
</tr>
<tr>
<td>Cubism</td>
<td>1907-</td>
</tr>
<tr>
<td>Dada</td>
<td>1917-</td>
</tr>
<tr>
<td>De Stijl</td>
<td>1917-</td>
</tr>
<tr>
<td>Bauhaus-New Typography</td>
<td>1919-1928</td>
</tr>
<tr>
<td>Art Deco-Art Moderne</td>
<td>1920</td>
</tr>
<tr>
<td>Surrealism</td>
<td>1924-</td>
</tr>
<tr>
<td>New York School</td>
<td>1940-</td>
</tr>
<tr>
<td>Conceptual Imagery</td>
<td>1950-</td>
</tr>
<tr>
<td>New Swiss</td>
<td>1960-</td>
</tr>
<tr>
<td>Psychedelic</td>
<td>1965-</td>
</tr>
<tr>
<td>Post-Modernism</td>
<td>1970-</td>
</tr>
<tr>
<td>Punk-Brutal Chic</td>
<td>1973</td>
</tr>
<tr>
<td>New Wave</td>
<td>1979</td>
</tr>
</tbody>
</table>

### APPLIED ARTS MEDIA

- COMPUTER GRAPHICS
- LASER
- VIDEODISC
- HOLOGRAPHY
- SIMULATED MOVING IMAGE
- FILM
- VIDEO
- MULTI-IMAGE
- ANIMATION
- TELEVISION
- LETTERPRESS
- FLEXOGRAPHY
- THERMOGRAPHY
- GRAVURE
- OFFSET LITHOGRAPHY
- SCREEN PRINTING
SUBJECT CLASSIFICATION

A) Associations
B) Government
C) Schools, Institutions, Museums
D) Industrial
E) Chemical, Plastics
F) Automobiles
G) Electronics
H) Manufactured Products
I) Construction, Architecture
J) Building Materials
K) Investment, Real Estate
L) Steel, Metals
M) Power
N) Coal Mining
O) Jewelry
P) Electric Products
Q) Food
R) Restaurants
S) Brewing, Distilling
T) Textiles (clothing)
U) Papermaking
V) Fuel Oil
W) Interiors (Furniture, Decorations)
X) Pharmaceuticals
Y) Cosmetics
Z) Retailing (Department Stores)
AA) Broadcast Communications
BB) Publishing
CC) Printing
DD) Film (Still, Motion)

EE) Music (Records, Instruments)
FF) Art Galleries
GG) Agriculture (Livestock)
HH) Fisheries
II) Tobacco Products
JJ) Banks, Financial Institutions
KK) Insurances
LL) Business Services
MM) Transportation (Forwarding, Postal Services)
NN) Airlines
OO) Travel Agencies
PP) Hotels
QQ) Amusements
RR) Laundries
SS) Display Marks*
TT) AD Agencies
UU) Design Studios*
VV) Personal Symbols
WW) Religious Institutions*
Data Elements for the Graphic Design Archive

FOR EACH IMAGE

frame number - reference to location on the video disk

image number - indicator to differentiate two or more images on the same frame (example, top, bottom, left, right, top left, top right, bottom left, bottom right, center)

Title of the work -

binder number - location of slide

page number - location of slide

slide number - slide identifier

designer name -

image country - country associated with the image

reference - source of the image (in the case of a periodical, this also includes a publication date)

minimum year - earliest year of the creation of the image

maximum year - latest year of the creation of the image

client - ??? (need a clear explanation)

category - ??? (need a clear explanation)
FOR EACH DESIGNER

Designer name -

Designer country - country most associated with the designer

Survey of Designers work - ????

Type of work - one type per designer??

Time period of designers' work (minimum and maximum years)??

Other info about the designers life- (need specifics here)??????

FOR EACH IMAGE/TAXONOMY NUMBER COMBINATION

frame number - reference to location on the video disk

image number - indicator to differentiate two or more images on the same frame (example, top, bottom, left, right, top left, top right, bottom left, bottom right, center)

taxonomy number (s) - identifier of an image's classification according to the taxonomy

NOTE:

According to draft #1 of "Database Identification Categories", you also have included

- Design/Art Director - one per image?
- Media - what types?
- Size - how measured and specified
- Copyright Holder - one name
- Other Archival Information - of what type?

We need to discuss these.

Chris
DATA ELEMENTS FOR GRAPHIC DESIGN ARCHIVE ON VIDEODISC

FOR EACH IMAGE

1. FRAME NUMBER
2. SLIDE NUMBER
   - BINDER NUMBER - location of slide
   - PAGE NUMBER - location of slide
   - SLIDE NUMBER - slide identifier
3. IMAGE INDICATOR - for two or more images on the same frame
   includes top, bottom, left, right, top left, top right, bottom left,
   bottom right, center
4. TAXONOMY NUMBER - eight levels
5. DESIGNER OR ARTIST
6. DESIGN OR ART DIRECTOR
7. DATE PRODUCED
   -Earliest Date
   -Latest Date
8. COUNTRY OF ORIGIN
9. TITLE
10. APPLIED ARTS MEDIA - see list
11. SIZE
    - Width
    -Height
    -Depth
12. CLIENT
13. SUBJECT CLASSIFICATION - see list
14. STYLE - see list
15. COPYRIGHT Holder
16. SOURCE OF IMAGE & PUBLICATION DATE

FOR EACH DESIGNER

1. DESIGNER NAME
2. DESIGNER COUNTRY
3. TIME PERIOD OF DESIGNER'S WORK
   -Earliest Date
   -Latest Date
PROPOSED VISUAL CLASSIFICATION SYSTEM FOR THE
IDENTITY ELEMENTS SECTION OF THE
GRAPHIC DESIGN ARCHIVE ON VIDEODISC.

1. DESIGN WORK
   A. DRAWN/PRINTED IMPRESSIONS (2 DIMENSIONAL)

2. INSTITUTIONAL GRAPHICS
   A. IDENTITY ELEMENTS

   1. VERBAL SYMBOL (uses letters and words)
      A. INITIAL (single letter)
      B. WRITTEN CHARACTER (written, whole name)
      C. ABBREVIATION (multiple letters, condensed words)

   2. ICON (sign with similarity to object)
      A. PRODUCT ICON (symbol related to product or service)
      B. METAPHORICALLY APPLIED SIGN (symbol indirectly related to the product or service, subject to individual interpretation)

   3. MARK (sign which is semantically open)
      A. FIGURATIVE MARK (symbol is a figurative representation or an object, not necessarily related to product/service)
      B. ABSTRACT MARK

   4. EMBLEM (abstract or figurative sign concept for a group of individuals, i.e. coat of arms)
      A. PRIVATE EMBLEM (states a certain idea, group, club, or organization of individuals i.e. family crest)
      B. PUBLIC EMBLEM (open ended meaning, individual interpretation, i.e. Rochester City Mark)

* Classification originally designed by HANS WECKERLE, Altered by William M. Covino 1/10/87. Further explanation as to classification levels may be found in Walter Diethelm's STGNET, SIGNAL, SYMBOL pages 214-222.
13. SUBJECT CLASSIFICATION

A) Associations  
B) Government  
C) Schools, Institutions, Museums  
D) Industrial  
E) Chemical, Plastics  
F) Automobiles  
G) Electronics  
H) Manufactured Products  
I) Construction, Architecture  
J) Building Materials  
K) Investment, Real Estate  
L) Steel, Metals  
M) Power  
N) Coal Mining  
O) Jewelry  
P) Electric Products  
Q) Food  
R) Restaurants  
S) Brewing, Distilling  
T) Textiles (Clothing)  
U) Papermaking  
V) Fuel Oil  
W) Interiors (Furniture, Decorations)  
X) Pharmaceuticals  
Y) Cosmetics  
Z) Retailing (Department Stores)  
AA) Broadcast Communications  
BB) Publishing  
CC) Printing  
DD) Film (Still, Motion)  

EE) Music (Records, Instruments)  
FF) Art Galleries  
GG) Agriculture (Livestock)  
HH) Fisheries  
II) Tobacco Products  
JJ) Banks, Financial Institutions  
KK) Insurances  
LL) Business Services  
MM) Transportation (Fowarding, Postal Services)  

NN) Airlines  
OO) Travel Agencies  
PP) Hotels  
QQ) Amusements  
RR) Laundries  
SS) Display Marks*  
TT) AD Agencies  
UU) Design Studios*  
VV) Personal Symbols  
WW) Religious Institutions*

* Classifications which were not allotted a proper level in the STANDARD AND POURS classification manuals, or were poorly and unclearly represented and marked.

** This SUBJECT CLASSIFICATION ON VIDEODISC is a hybrid of the STANDARD AND POURS classification, and the YASABURO KUWAYAMA industrial classification from his publication entitled VOLUME TWO TRADEMARKS AND SYMBOLS.
Graphic Design Archive on Videodisc

Rochester Institute of Technology
Department of Graphic Design
College of Fine and Applied Arts
One Lomb Memorial Drive
P. O. Box 9887
Rochester, NY 14623-0887
(716)475 2658 2646
**Graphic Design Archive on Videodisc**

<table>
<thead>
<tr>
<th>The Users</th>
<th>The Use</th>
<th>How Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historians (Art &amp; Design) Researchers Writers Editors</td>
<td>LT research Orientation Comparison Archival</td>
<td>Network Access Database Disc</td>
</tr>
<tr>
<td>Teachers</td>
<td>Course Preparation Models &amp; Examples Exams Workshops/orientation ST Research LT Research</td>
<td>Write own program Network Access Database Disc</td>
</tr>
<tr>
<td>Professional Designers</td>
<td>Project Visual Audit ST Research Client Orientation Staff Orientation</td>
<td>Network Access Database Disc</td>
</tr>
<tr>
<td>Students</td>
<td>ST Research LT Research Tests/exams Orientation to field</td>
<td>Network Access Database Disc</td>
</tr>
<tr>
<td>Non-Designers</td>
<td>Browse</td>
<td>Disc</td>
</tr>
</tbody>
</table>

*RRR-3/14/86*