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The Impact of digital imaging on visual communication

Holly Coulter

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A Thesis Submitted to the Faculty of
The College of Imaging Arts and Sciences
In Candidacy for the Degree of
Master of Fine Arts

The Impact of Digital Imaging on Visual Communication

Holly Catherine Coulter
May 22, 1997
Approvals

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Permission

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Date  Mar 22, 1997
Acknowledgments

I would like to take this opportunity to thank Deborah Beardslee, R. Roger Remington, and Dr. Richard Zakia for their guidance and assistance which have enabled me to complete the requirements for this Masters degree. Their support and encouragement have had a tremendous impact on my performance and success.

Thank you to Cliff Commanday and the other members of our Graduate Graphic Design class for all their time, effort, suggestions and friendship.

Lisa Hoffman, my 'sister', for 19 years of cherished friendship and support and for instilling in my mind that "persistence equals success".

A special thank you to my mom and dad, Mr. and Mrs. John M. Coulter, for all their love, support and encouragement throughout my seven years of college education. Remember, "what comes around, goes around".
Dedication

This thesis is dedicated to my great aunt, Louise Coulton, who lived to be 100 years old. She always believed in my talents and abilities and encouraged me to develop my interests in the arts. I think she would be pleased to realize that I have achieved the goals I set for myself.
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Thesis Project Definition

Introducing, identifying and understanding the nature of the problem - including history, situation and goals.

"Advertising nourishes the consuming power of men. It created wants for a better standard of living. It sets up before a man the food of a better home, better clothing, better food for himself and his family. It spurs individual exertion and greater production."

Winston Churchill: This is Advertising, James Playsted Wood

"Think what the people would like to see and show them that. That's about all there is to advertising isn't it?"

Lewis B. Jones

"Good Design, good typography is a function of information and inspiration, of the conscious and unconscious, of yesterday and today, of fact and fantasy, work and play, craft and art."

Paul Rand

The purpose of this thesis project was to determine whether or not digital imaging had an impact on visual communication, specifically graphic design and advertising design. One main goal was to attempt to define a difference between two fields of visual communication: graphic design and advertising design. For this project visual communication has been defined as communicating messages or information through the use of visual media such as print, photography, illustration, multimedia, world wide web and television. Graphic design and advertising design are two specific fields of study that fall under this more general term.

With a background in applied photography which concentrated on advertising and the psychology of imagery, there has always been an interest in the design of advertisements. Capturing the attention of and having a positive effect on viewers has always been a personal and professional goal. Deciding to study graphic design and learn how to inform an audience in a clear and logical manner could only be a beneficial choice, resulting in producing visually pleasing work. The layout and design of typography and imagery on the printed page is of utmost importance in accomplishing this task. Once enrolled in the Graduate Graphic Design program at Rochester Institute of Technology, trying to recognize and realize the difference between graphic design and advertising design proved to be somewhat difficult; they seemed to be very much alike.

Having the ability and knowledge to use a computer as a tool for "editing, enhancing and altering images" has been quite useful to designers in the visual communication fields, as well as intriguing in terms of the current capabilities technology has in today's society. Of course the computer can not 'design' for you but, as a tool, is quite an invention. Just because the user has the knowledge and ability to place typography and imagery on a page does not mean he or she has created a well designed piece. A skilled designer integrates form with function. A computer has no capability to
accomplish this for you. Before the computer, photographers were manipulating photographs in traditional darkroom settings. Such an environment is not conducive to extensive experimentation with techniques and often consumes valuable time. Making mistakes either meant that a photographer had to start over, wasting paper, or that a new unexpected result had been created. The advantage of a computer is that you can, by the click of a button, undo the mistake you have made or save the mistake and go back to it later for further exploration. Often special effects, especially concerning the use of typography, are unobtainable in the darkroom. Certain desired effects can be achieved much quicker and easier on a computer through the application of special effects.

Another factor of the thesis project was the decision of which kind of media to focus on. Two possibilities, where digital imaging appears most prevalent, were television and print. It is likely that you have seen at least one example where digital imaging is used in television advertising. Talking, singing, dancing bears and frogs from Pepsi, Coke, and Budweiser instantly come to mind. By the end of this project, it is hoped the reader will be more aware of examples where digital imaging has been employed in the development of printed design pieces.
Research and Analysis

Describing facts, principles, theories or relationships that have been discovered to help to solve the problem.

During the first year of the Graduate Graphic Design program at Rochester Institute of Technology, each student was required to select an art and design movement to be researched and referred to throughout the entire year. A previous degree in photography and a developing interest in utilizing the computer for filter effects, color experimentation, and image montage to create ‘surreal’ environments, it seemed logical to study the art movement of Surrealism.

After studying and designing artwork using techniques that reflected the Surrealism movement, the decision to continue and expand this area of thinking seemed appropriate for the thesis project. Digital imaging can be considered a new tool for a Surrealist, especially when montaging and applying special effects to an image. Three proposals were addressed to Professor R. Roger Remington at the beginning of the fall quarter. All proposals were concerned with advertising, digital imaging and/or print media issues. As per his suggestion, incorporating graphic design content was a must, considering this is a graphic design thesis. The next step involved creating a thesis planning report which defined the purpose, intent, goals and time frame for the thesis project (see Appendix I).

The main purpose of this thesis was to learn more about two visual communication fields of study as possible future career venues. Another purpose was to inform students graduating from either high school or college of the similarities and differences between two visual communication fields for their personal benefit in choosing fields to study or possible future career paths for themselves.

Because of the wide range of media used in contemporary design, the decision to limit the thesis to print media, specifically magazines, was necessary in order to stay focused within the allotted time for the project. Magazines are seen and easily obtained by everyone. This seemed to be a reasonable medium to focus on.

After compiling information in the planning report, research began by collecting relevant books, magazine articles and professional opinions as well as finding program descriptions from other colleges of art and design. A phone call to a publishing company yielded a fax reply, listing general categories of magazines available to the public, compiled by Curtis Circulation Company (see Appendix 3). This list includes all categories of publications on the market today. Because many are hobby related and contain a great deal of information on specific topics, the decision to not include them was made. The advertisements in these hobby magazines mainly contained photographs of particular subjects where digital imaging was not a factor.
From a large collection of past and present magazines, image gathering took place. The intent was to find examples in all types of newsstand publications which addressed a range of audiences and a variety of subject matter. The next step included placing each found example into five different categories (see Appendix 4). The first categorization was by subject matter which included alcohol, computer software and professional equipment. The second categorization was by intended audiences; male, female or both. Next, how visual rhetoric was used; addition, exaggeration, substitution, or subtraction. Another categorization was deciding whether the example was considered a graphic design or an advertising design product. The last categorization organized examples based on primary manipulation - whether digital imaging was mainly applied to the typography or the imagery in the example.

It was apparent that more examples were found where digital imaging had been applied to imagery as opposed to typography. This could be a very logical way of keeping the typography legible for readers not as familiar with type variations and experimentation.

As stated earlier, a letter was written to many design professionals and educators asking what they thought the difference between graphic design and advertising design was and how they felt digital imaging has impacted design fields today. Unfortunately, not many replies were received, even after a second copy had been sent. Of the replies received some answers were vague, others proved to be helpful (see Appendix 5). Members of the Board of Directors from the Graphic Design Education Association (GDEA), American Institute of Graphic Arts (AIGA) chapter presidents and members, various design professionals online and RIT faculty members were sent copies of this letter.
Synthesis
Describing interrelationships and patterns - sorting, sequencing, ordering information or parts of the problem.

When beginning this project the idea of formulating a logo as an identity mark seemed appropriate. A mark that represented visual communication and digital imaging together was the goal. This would enable the viewer to recognize this body of work as separate from other studies.

A whole systems map, to be included in the thesis planning report, was designed to determine what information would be included and to what extent it would be discussed.

The four thesis show panels and a computer application displayed for two weeks in the Bevier Gallery at RIT were a representation of research, analysis and work in progress. The four panels and the computer application were important to display as an introduction to the final product: an educational interactive CD-ROM. They enabled a viewer 1) to become familiar with the logo and title of the project 2) to see the different visual examples used throughout the application and the categories they were placed in 3) to see the flow and kind of information addressed within the application 4) to view some sample frames from the project without having to rely on interacting with the actual computer application. The computer station was included to allow the viewer to interact with the application and experience the information in a sequence of their choosing.

Logo
Creating a distinct and unified form which communicates what this project is about was an important factor in the beginning stages of the thesis development. Visual communication is represented by the eye and the impact of digital imaging is represented by the pixelated or digital side of the eye. Originally the eye was cyan and black in color. When choosing colors for backgrounds in the computer application, cyan was also an option. This meant that a cyan eye would not be an appropriate color for the eye; especially when the two were on the same screen. The color of the eye was then changed to red. As per Professor Deborah Beardslee's suggestion, a red eye could be associated with bloodshot, tired or irritated eyes. So the color was again changed to royal blue. Key words, meant to stand out from other text on the help page, arrows for linear navigation and the quit button were also changed to royal blue. In other words, royal blue was used to indicate important or useful tools that needed to stand out from other aspects of the application. Since the eye logo would be one of these navigational tools, the decision to make it royal blue seemed logical.
Synthesis continued

Thesis Panels / Visual Examples
Many images were gathered and arranged by the categories of Addition, Exaggeration, Substitution and Subtraction (see Appendix 7b). Each category includes a brief definition below the main heading for clearer understanding. Their definitions are as follows:

1) Addition: introducing a new element with existing elements to emphasize the meaning.
2) Exaggeration: overemphasizing characteristics of an existing element to heighten meaning.
3) Substitution: introducing a new element in place of an existing one to alter the meaning.
4) Subtraction: removing an existing element to interrupt previous meaning.

The subcategories of Imagery and Typography were then applied. The image examples were arranged using a grid and placed accordingly. Larger, double spread images were originally positioned at the bottom of the section. The logical decision to place them at the top was made because some of the categories did not fill the entire section and would have left a blank image area making the design look incomplete.

Navigational Map
Planning and designing an organized map for the use of the thesis application by a viewer was another important part of this thesis development. Deciding on what information to incorporate, where it would be encountered in relationship to similar information and how it would look aesthetically were key considerations in the overall design. This particular element went through many aesthetic and informational stages (see Appendix 9). Originally the design was horizontal; considering the content to be discussed, smaller groups of information branched off from the main topics resulting in smaller groups of scattered information. Often the information was the same for all topics. This needed to be represented within each group but caused stems of information to become confusing. Another version of the map was developed using a more vertical orientation. Creating boxes around the information made it clearer and easier to understand. Because the four topics of graphic design, advertising design (both parts of visual communication), print media and digital imaging were in a sense being compared, many topics that would be discussed would have been repeated unnecessarily within the design. Instead they were labeled and a larger box of information was implemented as 'Module A - Introduction', 'Module B - Details' and 'Module C - Digital Imaging' (see Appendix 7c).

The intention was to have a general introduction to the overall project, including a mission statement and situation analysis. From there the user had a choice of 1) going through a new user sequence or, if a previous user, 2) going to a main menu sequence. The new user sequence contains the five main sections of the application including visual communication, graphic design,
advertising design, print media and digital imaging. All of these include a splash screen of visual examples related to the corresponding topic. From there a brief introduction of "what is it?" is available. This map had also been implemented at a reduced size into the application as a navigational tool.

After having viewers evaluate the project, it was clear that the map was not working as a navigational tool. First of all the text on the map was not readable at the size implemented, second the whole idea of having the user click on a topic of interest and go directly to it was confusing because most main topics discussed similar information found under multiple sections. Having the viewer click on one area, go back to another and then to another just didn't work, causing the viewer to become frustrated. So very late in the development, a new idea was implemented. A table of contents replaced an illegible map at the beginning of each section. The table of contents listed general information, such as help pages, thesis statements, and topics addressed, such as visual communication, graphic design, advertising design, print media and digital imaging. This made navigation much clearer to the user concerning what topics were discussed and how to get there easily and quickly.

CD-ROM Application Frames
Screen shots or frames were taken from work produced in Macromedia Director, a multimedia program (see Appendix 7d). Considering the final size chosen for all horizontal panels for the thesis show, and the necessary size for each frame to be legible, a total of twelve images were used. The first five relate to an introduction sequence which includes the title screen, welcome page, help or user definition, situation analysis of the whole thesis project, and a small version of the navigational map. The other images were introductory screens of three main topics of the project: Visual Communications, Graphic Design and Advertising Design. A sample of the 'What is it?' frame from Graphic Design seemed logical to introduce for those unfamiliar to graphic design (parents, friends and others not associated with art and design). The panel also included a description of graphic design and what it encompasses. A frame of the History of Advertising Design was also displayed enabling the viewer to understand where advertising design originated from. The following frame included larger visual examples, the topic of the image, the magazine it was found in and a description of the technique of either Addition, Exaggeration, Substitution and Subtraction used in this particular image. The final frame was a sample of the glossary sequence where advertising design has been defined, since the 'What is it?' frame for this topic was not seen in the panel, this decision seemed appropriate.
The CD-ROM Application
The CD-ROM application has proved to be a logical source of information concerning this thesis project (see Appendix II). Research has been incorporated into many frames within the application, in a logical ordering of information which stems from the original organizational map. An introductory sequence was created, animating the eye logo from a small size into a larger one. Navigation through the program had originally been designed for the user to either pick and choose where they would like to go by using the map, or simply navigate from page to page in a linear fashion using the arrows at the bottom of the page. With the new decision to use a table of contents at the beginning of each section, movement through the application became more linear. The eye is present on all screens, returning you to the main table of contents where the help page and main topics are easily accessible. Originally, when the Map was included, the eye was designed to return the user to the Map at any given time. To inform the viewer at all times of his or her whereabouts in the application, a light gray, italicized label is also present within the navigational bar at the bottom of the screen. Messages are included to remind the user that any images on the screen can be clicked on to access a more descriptive frame with a larger or complete version of the image.
Ideation

*Describing the generation of conceptual solutions and preparation of a range of preliminary design approaches.*

Designing a recognizable logo as an identity mark, developing a whole project plan in a visual form, culminating all research and analysis into an application and preparing for the Bevier gallery thesis exhibition were all priorities at one time. Many ideas and concepts were generated.

**Logo**

When first attempting to design the logo for this thesis project, many variations of eyes were explored to represent the visual and digital aspect of this study (see Appendix 8). First, clip art images of eyes were gathered and examined. Then, deciding to keep it simple without too much detail, computer sketches were produced using circles and lines. Once the basic form was designed it was brought into Adobe Photoshop where digital effects could be applied. Many filters were experimented with, attempting to achieve the desired effect. Finally, the filter Pixelate; Mosaic was applied to the right side of the eye. 'Visual communication' is represented by a complete un-altered eye while the 'impact of digital imaging' is evident on the right, pixelated side.

**Thesis Planning Report - Whole Systems Map**

Early on in the thesis project a computer sketch of a whole systems map of the Impact of Digital Imaging on Advertising was created (see Appendix 2). As per Professor Roger Remington's suggestion, the study should be clearly about graphic design. Taking this into greater account, a new design was implemented to incorporate graphic design with more emphasis. The use of different sized circles for larger or smaller priorities of information and shaded areas for overlapping topics and primary focus were also implemented (see Appendix 1 page 24).

**Application**

Before implementing any research or conclusions into an actual application, computer generated sketches of the storyboards were designed using a grid (see Appendix 10). The background was white, text was large, navigational items were simple. Knowing where you were at a particular place in the program was not evident. Background images were the first to be explored. Trying to decide on pertinent colors related to each topic has been a challenge as well as trying to portray the feel of digital imaging in the final background choices. The gray background images applied to the introduction sequence were, at one time, utilized in different bright colors throughout the entire project. This felt 'digital' but really was unsuitable and somewhat unexciting to use for the main topics being addressed. Some experimentation, such as cropping the image examples and montaging them together was explored. Keeping the images in their original colors was investigated. Then the colors were inverted, reduced in contrast, lightened up, and finally duotoned; applying only the chosen color for each section; three variations of green were used for visual communication, graphic design and advertising.
Ideation continued

design, yellow was used for print media and blue for digital imaging. This way the viewer could still recognize topical frames within the application without distraction or confusion (see Appendix I).

Once background images were created, information relevant to each section was incorporated. Image examples were generally positioned on the right and textual information on the left. Each section has a bold heading separated by a line, then text underneath. So that the user was aware of which topic they were reading, the name was used in bold in the first sentence. At the bottom of the screen, in the navigational bar, the name has been repeated, italicized and created in a lighter shade of gray. The idea to repeat the name was influenced by an earlier approach which explored the use of initials for location identification within the program. VC, GD, AD, PM, and DI, were located in the square created by the two lines in the top left corner. This seemed inappropriate since other associations could be made such as VCr or PMs for example.

Another idea that had been considered was the use of four small boxes color coded to relate to the individual sections of graphic design, advertising design, print media and digital imaging. If you were on the 'who is involved' page for graphic design, by clicking on the blue box you would go to the 'who is involved' page for digital imaging. This idea has since been omitted for technical reasons.
Evaluation

Describing testing strategies that were used and the resulting selection of possible design solutions.

Evaluation for this thesis project was very important to determine the effectiveness of the application. Determining major problems or confusing areas was a priority. Although the evaluation date had been postponed a few times, once it was completed the results were very helpful.

Originally the idea of presenting this project to a group of senior art students at a local high school was considered but time did not permit this. Instead, at RIT, a group of seventeen senior graphic design students was approached in their Design Specifications class and asked to partake in an evaluation. They gladly agreed. Five stations were set up in their computer lab classroom; after turning in their final exam for the class they were each handed a copy of the evaluation form designed for this application (see Appendix 12a). The average amount of time spent experiencing the application was about fifteen minutes, most returning with smiles and helpful comments. Some suggestions included 'make the type readable in the map', clearing up navigation problems (many students were confused and lost), correcting spelling errors, implementing sound and movement to let the viewer know he / she has clicked on a section. Other comments included, 'overall design was nicely done', 'highly impressive image examples', 'visually interesting splash (introductory) screens', 'background images were pleasing to the eye' and 'good work'.

Generally the students were positive and satisfied regarding the application. All questions were rated on a scale from one to ten; one representing a positive response and ten representing a negative response. Only one nine was listed and that was concerning navigation. The most positive results pertained to the fact that the images used in the program were 'relevant' and 'stimulating'. Upon receiving the completed evaluation forms, two charts were created listing the actual numbers, from 1 to 10 as answers to the sixteen questions and another listing which summarized the answers for each question (see Appendix 12b).

Unfortunately this evaluation session did not take place before the thesis show in the Bevier Gallery, as planned. Preliminary evaluation would have been helpful in focusing on problems before presenting to a much wider audience. Several informal evaluations did take place during meetings with Chief Advisor, Professor Deborah Beardslee. A designer can become very focused on how they would LIKE the user to navigate and view the application. Deborah was the first person to try and interact with the program. It was a great help to observe her actions and to hear her thoughts, questions and comments. The last meeting before the show encouraged quick revisions before the thesis reception where, once again an informal evaluation took place by observing, listening and answering questions as they were asked. At that time it was apparent that there were various navigational problems and confusions to be worked out.
Implementation
Describing how the project was refined, developed and produced to its final form or application.

Application
There are many computer applications that allow a user to design multimedia presentations. Macromedia Director 5.0 was the most logical for this project because of past experience, or lack of experience, in any other application. It also seemed more flexible than a program such as HyperCard. One important factor is that Director has the capability of creating a projector file which allows you to create a play-only version of a movie or project. This also enables users who do not own a version of Director to play the movie.

Original screen designs were implemented in QuarkXPress because of its ability to allow the use of guides and grids. Most screen images were saved as PICT formats and imported into Director. Visual examples from magazines, also saved as PICT formats, were scanned into the computer using Adobe Photoshop 4.0. Text was placed in Quark and then copied and pasted into Director. Because taking screen shots of Quark pages and importing them into Director resulted in fuzzy images and text, the screen shots were used as templates, then deleted.

Many versions have been designed. Each one has been added on to, saved as a new version and then stored on a jaz disk for future reference.
Dissemination

Describing plans for future audience interaction - how could this product or information be distributed or used in the future?

This thesis project has been produced as an interactive CD-ROM application. CD-ROMs, when handled with care, can last for many years, as long as the technology remains compatible. This will enable an interested user to interact and view the completed project at anytime in the future. If for some reason technology does change, making the CD-ROM obsolete, the documentation of this thesis project will still be available. Within the documentation a section has been designated containing all the application frames, in a linear order of importance and as a logical information flow (see Appendix I 1). A list of contents and page numbers could be included for quicker reference. This version of the book will always be available at Wallace Memorial Library’s archive and special collections department.

The Educational Technology Center of the Wallace Memorial Library, currently has a collection of CD-ROMs separate from the reference material in the main library. For those interested in learning more about visual communication, graphic design, advertising design, print media and/or digital imaging this project could be a useful reference in the library’s collection of materials.

Possibly, in the future, if the Wallace Memorial Library implements a collection of pertinent CD-ROMs in the computer area on the second floor, this CD-ROM could be included for students to view under the topics of Visual Communication, Graphic Design, Advertising Design or Digital Imaging.

Another possibility of future dissemination is to transfer the information into the World Wide Web by use of screen shots. Developing a new web site requires a lot of time and effort, especially to a new or less experienced web designer / developer. For this reason the World Wide Web was not an option for the final application at this time. Advertising the educational CD-ROM and selling copies for a small fee to those interested could be a future alternative.

Another suggestion, provided by Associate Advisor Dr. Richard Zakia, was to contact other schools or institutions with programs involving advertising design and inquire as to whether or not they might like a copy of this thesis project for their advertising archives. Four possibilities included Duke University, Northwestern University, the Smithsonian Institution and the Visual Studies Workshop.

Thesis Show Panels

Preliminary computer sketches were made to explore aesthetic possibilities for the panels within the viewing context of the gallery. The sketches, lacking in information and context, were basic and boring. The designs were symmetrical and the images would have been too similar and small in size (see Appendix 6). Extravagant measures were explored in regard to the thesis show and the area for the installations of this project. The creation of a separate environment with three panels and a computer included an idea to conceal any area around the computer with a cloth containing a large printed eye whose ‘pupil’ would serve as a window for the computer screen only.
Retrospective Evaluation

Assessing the final product to determine strengths and weaknesses - how could future versions be improved?

One of the major problems encountered was during the development of navigation through the thesis application. This was in part due to lack of confidence and inexperience using the computer application Macromedia Director 5.0. Two classes were taken; one which primarily focused on the program, the other which experimented with Lingo.

Considering the time restrictions, additional experimentation and troubleshooting were not options. This was definitely a limitation. Instead, basic Lingo techniques were implemented.

Possibly working as a team with another more experienced student, to execute the desired effects and navigation would have been a beneficial tactic. This would be a definite suggestion to other students embarking on similar projects.

A great deal of time was spent on developing the organizational map. Major changes and many re-designs were performed late in the overall process. This effected the start of devising the actual application, making it difficult to incorporate more information by the time the thesis show was to occur.

One idea for evaluation, if performed again, would be to have more than one class of students participate in the evaluation process. Visiting a local high school and asking a class or two of senior students interested in visual communication fields to participate could also be a viable option.

A suggestion for future Masters students is to finalize a topic for their thesis during or toward the end of spring quarter of their first year. This will permit them to begin research or at least consider possible ways of execution for their projects. Understanding potential problems and distractions, such as other classes, is of utmost importance in order to avoid unnecessary stress and fatigue. Planning well in advance will allow these students to be able to perform the necessary evaluation procedures without encountering additional, and possibly avoidable, problems.
Conclusion
Summarizing overall experience and outcome - what was gained?

This graduate thesis project has proven to be a challenging yet fulfilling, rewarding and educational experience. Finally being able to answer the questions of what the difference between graphic design and advertising design is and how digital imaging has had an impact on them is quite satisfying.

Developing an interactive program and being able to inform and educate others with similar questions and concerns for future career paths in a way which they can choose what to learn about and read also has been rewarding. Most of the students who filled out an evaluation form for this project seemed to be interested and went away with greater knowledge of these topics.

It has become apparent that designers utilize the techniques of addition and exaggeration as a means of enhancing a design or advertisement to make it more attractive, informative and visually interesting. The techniques of substitution and subtraction do not seem to have been used as much, according to the examples found in the publications selected.

Graphic design and advertising design are both very much alike. Many will say there is not any difference except concerning their intent. Both fields of communication utilize and combine typography and imagery to convey messages. In formal graphic design instructing the student learns to combine meaningful form with function. This enables the audience to easily and clearly understand and recognize the information or message that the professional designer is intending to send. An advertising designer’s main concern is to improve the sales of a client’s product or service by attracting or persuading a viewer to act on the message communicated. Graphic designers are not always involved in the design of the advertisements we see. This is often quite apparent.

Digital imaging has had a profound effect on visual communication fields, specifically graphic design and advertising design. With the introduction of the Macintosh computer in 1984, designers were given a new option for a tool that has become quite common in designing printed matter. Of course, the computer can not design for you but it can extend the possibilities. A concern all designers should be aware of is the unnecessary use and waste of paper. The computer allows designers to preview their artwork or designs on the screen before printing. Mistakes, effects or unwanted placements of text or images can be undone. Unusual or non-traditional designs can be achieved through experimentation. Montaging and placing type and images can be executed easier and faster. Transmission of documents via the internet or email allows for client approvals anywhere in the world. These are all benefits of computer technology. In addition, eccentric or extraordinary effects can be created which could encourage the unfamiliar public to take a second look and remember the information presented.
Glossary Terms

Defining particular terms that were used within the written documentation to aid in reader understanding.

Advertising: printed or spoken matter that calls attention to a product or service.

Aesthetics: a coherent system of criteria, which can be purely visual, moral or social, or any combination of these, used for evaluating works of art.

CD-ROM: a system of storing large amounts of information on a compact disk for retrieval on the computer.

Digital Imaging: the act of producing edited, enhanced or altered images through the use of a computer and other digital devices.

Filter: the name given to a single command that applies special effects or certain editing processes to images.

Form: the shape, outline, or configuration of anything; structure as apart from color, material, etc.

Graphic Design: activity of combining typography, illustration, photography and printing for purposes of persuasion, information or instruction.

Jaz Disk: a removable media format from Iomega Corporation that has a storage capacity of 1 Gigabyte or 1,024 megabytes.

Logo: letters or images designed into a distinctive and unified form. Can often provide the basis for a company trademark, brand or corporate identity.

Screen Shots: images taken, as seen on a computer screen, from an active application or computer program.

Splash Screen: the first frame (screen) of a section of information, usually containing a title and pertinent images or examples of what will be seen later on in that section.

Typography: the art and design of type.

Rhetoric: study and application of the artful, effective, and persuasive uses of language (signs).

Visual Communication: communicating messages through visual media; such as print, photography, illustration, multimedia, world wide web and television.
Bibliography
Listing all sources used for the study by category - books, journals, magazines, web sites, etc.


Appendices

Labeling each tool, involvement or activity separately - enabling a reader to refer to more in-depth detail at the end of the thesis documentation.

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Final Application Frames  
Appendix 12  
Evaluation Form and Results
Appendix I
Thesis Planning Report
Thesis Proposal

Project Title

The Impact of Digital Imaging on Visual Communication

Client

Rochester Institute of Technology
One Lomb Memorial Drive
Rochester, New York 14623

Designer

Holly Catherine Coulter
608 Park Avenue 8B
Rochester, New York 14607-2973
716-242-9562

The topic I have chosen for my thesis is:

The Impact of Digital Imaging on Visual Communication

I will first define digital imaging and discuss its history, including brief descriptions of computer platforms and terminology. I will then introduce visual communications, with a focus on advertising and graphic design. What are they? Where are they seen? Why do we do them? I will also focus on the important role these areas of visual communication play in print media.

Traditional techniques used to produce an advertisement, as well as techniques that have evolved from expanded technology and user-friendly computers will be discussed. I will argue whether or not the computer is an asset in the advertising environment. Does it seem that more products being sold from the result of "applying" digital imaging? Are we aiming to shock or amaze through digital imaging? Has the audience played a role in digital imaging?

These questions and more will be critically analyzed and answered within the context of my thesis project, which will consist of much research in the areas of digital imaging, advertising, graphic design and print media; including magazine advertisements and possibly billboards and posters. One possible way of presenting my studies is to produce an educational interactive, multimedia presentation on a CD-ROM.
Appendix I
Thesis Planning Report continued
Problem Statement

This thesis will explore the role of digital imaging in visual communications. Does digital imaging increase and enhance attention to the print advertisements representing certain products? Although I am focusing my research on print advertising, the same questions can be raised for television, and internet advertisements.

Research will be conducted in the areas of digital imaging and visual communications specifically graphic design, advertising design and print media. In order to share and communicate my research findings to students I will produce an educational, interactive, multimedia presentation on a CD-ROM. This could also be produced as an informative book for those who do not have access to a computer.

Digital Imaging
the act of producing edited, enhanced or altered images through the use of a computer and other digital devices

Visual Communication
communicating messages through visual media

Visual Communication Fields
• advertising
• graphic design
• illustration
• photography
• world wide web/internet
• television
• multimedia
• printing
  • magazines
  • posters
  • billboards
  • newspapers
Appendix I
Thesis Planning Report continued
Situation Analysis

As we approach the 21st century, the use of digital imaging continues to increase. Frank Romano, a distinguished professor at Rochester Institute of Technology states that in 1984 there was an average of 125 students per computer; today this number is less than nine.

Digital imaging emerged in 1984 with the introduction of the Macintosh workstation. Most advertising agencies and design studios, specializing in print media, are now using computers as tools for image development and production. The dominance of the use of computers and digital imaging however, raises many questions in the minds of students of visual communication fields, such as photography and design. Has digital imaging improved the quality of communication and persuasion in advertisements? Are the ads which represent the products more effective using digital imaging? How has digital imaging affected the creative process in the design of advertisements?

Digital imaging is used and manifests itself in many forms of visual communication. From a wide spectrum of applications, I would like to focus my thesis on print advertising because it relates to my background and professional direction. A critical survey of digital imaging in advertising design will be of importance to students studying in the visual communication fields. Its impact on advertising design is relevant to all image creation and will continue to be so. What we have witnessed so far is most likely just the tip of the iceberg in terms of the potential of digital imaging on the advertising design field. The future looks bright and exciting for digital imaging especially in graphic design and advertising design.
Appendix I
Thesis Planning Report continued
Mission Statement

This thesis pertains to the impact of digital imaging on visual communication. It will acquaint students and designers to the importance of digital imaging in relationship to graphic design and advertising design, when successful this audience will become more knowledgeable in this realm of communication.
Appendix I
Thesis Planning Report continued
Research Methodology Diagram

The following diagram illustrates some of the views and areas I will be looking at concerning digital imaging and visual communication. The shaded area is where I will focus much of my energy. Also shown is the way in which my findings and research will be presented.
# Appendix I
## Thesis Planning Report continued
### Implementation Plan

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<tr>
<th>Calender</th>
<th>RIT</th>
<th>Thesis</th>
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<tr>
<td><strong>November</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>12- last day of classes</td>
<td>15- thesis planning report/ final critiques</td>
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<tr>
<td>18</td>
<td>20- Dec 1- Fall break</td>
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<tr>
<td>25</td>
<td>28- Thanksgiving</td>
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<td></td>
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<td>begin image search</td>
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<td>research phase begins</td>
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<td><strong>December</strong></td>
<td></td>
<td></td>
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<tr>
<td>2</td>
<td>2- Winter Quarter starts/Daytime classes begin</td>
<td>generation of concepts, thumbnails, do library research</td>
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<tr>
<td>9</td>
<td>9- Last day to add/drop</td>
<td>image gathering</td>
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<tr>
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<td>21- last day of classes before break</td>
<td>First full committee meeting, discuss research, project and direction</td>
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<tr>
<td>23</td>
<td>22-6 Christmas break</td>
<td>ideation phase begins</td>
</tr>
<tr>
<td><strong>January</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>1- New years</td>
<td>synthesis phase begins</td>
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<tr>
<td>13</td>
<td>6- Christmas break ends- Classes resume</td>
<td>conduct interviews</td>
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<tr>
<td>20</td>
<td></td>
<td>selection of images</td>
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<tr>
<td>27</td>
<td></td>
<td>Second meeting: show work to date</td>
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<tr>
<td></td>
<td></td>
<td>rough sketches</td>
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<tr>
<td><strong>February</strong></td>
<td></td>
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<tr>
<td>3</td>
<td>12- Lincoln’s birthday</td>
<td>conduct interviews</td>
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<tr>
<td>10</td>
<td>14- Valentine’s day</td>
<td>Third meeting: show work to date</td>
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<tr>
<td>17</td>
<td>22- Washington’s Birthday</td>
<td>and new research</td>
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<tr>
<td>24</td>
<td>20- Dad birthday</td>
<td>work on CD-ROM application</td>
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<tr>
<td>26</td>
<td>26- Holly birthday</td>
<td></td>
</tr>
<tr>
<td><strong>March</strong></td>
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<td></td>
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<td>3</td>
<td>17- St Patrick’s day</td>
<td>writing questionnaires for evaluation</td>
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<td>19- Spring break</td>
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<td>20- Spring starts</td>
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<td>30- Easter</td>
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<tr>
<td>1</td>
<td>6- Daylight savings</td>
<td>Begin evaluation of application</td>
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<tr>
<td>7</td>
<td>11- Second thesis show</td>
<td>Fourth meeting: show work to data</td>
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<td>Thesis Show, questionnaires and manual</td>
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<td>21</td>
<td>28</td>
<td></td>
</tr>
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<td>28</td>
<td>28-27 set up for thesis show</td>
<td></td>
</tr>
<tr>
<td><strong>May</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>11- Mother’s day</td>
<td>First draft of thesis</td>
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<td>5</td>
<td>2- Thesis reception</td>
<td>Last committee meeting, Final thesis</td>
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<tr>
<td>12</td>
<td>15- teardown thesis show</td>
<td>Final signatures</td>
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<tr>
<td>19</td>
<td>16- last day of classes</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>24- Commencement</td>
<td></td>
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Appendix I
Thesis Planning Report continued
Pragmatic Considerations and Dissemination

Pragmatic considerations

The principle source for research will be from the RIT and Rundell Libraries in Rochester and the Adriance Memorial Library in Poughkeepsie, New York. The main expense for this project will be in production of the manual and postcard. Numerous color copies are anticipated but the dollar amount can not be determined at this time. A jaz disk, at 120 dollars per disk will be required for storage. The final application I create will be stored on a CD-ROM disk at 10 dollars a disk; possible transfer charges may apply.

This project's application will be produced on a Power Macintosh 8500/120.

Dissemination

The thesis and its application will be disseminated first through the thesis show at RIT, which will allow an audience to view and evaluate it. Then it will be available at the Wallace Memorial Library Archives for anyone to view.
Appendix I
Thesis Planning Report continued
Evaluation

Evaluation will be conducted throughout the process and at the thesis show by means of a questionnaire that will be available. The evaluation process will allow improvement throughout the experience, and the ability to learn from it once the final application is completed.

A group of 22 senior will be asked to view the application in progress and offer suggestions and comments concerning specific aspects of the application. An evaluation form will be available for them to fill out next to two or three computers in the lab that they have their class meetings. An explanation of the thesis is unnecessary since the application should be able to stand alone. (see Appendix 12)
## Appendix I

### Thesis Planning Report continued

### Goals, Objectives, Processes and Strategies

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<thead>
<tr>
<th>Goals</th>
<th>Objectives</th>
<th>Processes &amp; Strategies</th>
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<tr>
<td>* To do research and analyze digital imaging in relation to advertising and graphic design</td>
<td>* To identify digital imaging, advertising and graphic design</td>
<td>* Gather articles and images from design publications and the internet related to digital imaging and advertising and graphic design</td>
</tr>
<tr>
<td></td>
<td>* To understand advantages and disadvantages of digital imaging, advertising and graphic design</td>
<td>* Explore popular design options on the computer</td>
</tr>
<tr>
<td></td>
<td>* To determine how digital imaging has been applied to advertising</td>
<td>* Identify important factors involved in this area</td>
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<tr>
<td></td>
<td>* To identify the role a digital imager, art director, designer, and artist plays in the advertising environment to inform the viewer of what might be expected of him/her</td>
<td>* Show benefits of each using found examples by making a visual diagram incorporating effects commonly used</td>
</tr>
<tr>
<td></td>
<td>* To include examples of effects created on the computer through the use of filters and other popular tools</td>
<td>* Interview artists in these fields</td>
</tr>
<tr>
<td></td>
<td>* To apply Semiotics to advertisements that utilize digital imaging</td>
<td>* Compile information and create a document containing interview results</td>
</tr>
<tr>
<td></td>
<td>* To do research and analyze the area of visual communications, focusing on print media in advertising and graphic design</td>
<td>* To collect critical writings on these subjects</td>
</tr>
<tr>
<td></td>
<td>* To identify and provide an overview of visual examples in graphic design and advertising to understand the relation between these two fields</td>
<td>* Explore options in Photoshop and possibly Illustrator</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Create visual presentation of applications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Create illustrated examples and discuss effectiveness concerning syntactics, semantics and pragmatics</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Gather articles and images from design publications and the internet related to print media</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Interview artists in this field</td>
</tr>
</tbody>
</table>
Appendix I
Thesis Planning Report continued
Goals, Objectives, Processes and Strategies continued

- To understand advantages and disadvantages of print media
- To recognize traditional, present day and possible future techniques utilized in producing print advertisements
- To understand advantages and disadvantages of graphic design

- To compile information on digital imaging and advertising to give the user a better understanding of the impact of each, upon the other
- To discuss the history and direction of digital imaging in order to provide a context for the viewer
- To show the relationship between digital imaging and advertising
- Define function of CD-ROM in order to provide a context for the viewer
- To identify and analyze the relationship of graphic design and advertising
- To determine the similarities and differences between graphic design and advertising
- To identify the role a graphic designer plays in the advertising environment to inform the viewer of what might be expected of him/her

- Collect articles and books pertaining to this topic
- Include visual examples of digital imaging and advertising separately and together, from design publications
- Research the history of digital imaging in books and magazines and the internet
- Research the history of advertising in books and magazines and the internet
- Create a diagram/timeline that will show significant importance of each of these topics
- Interview artists in this field and compile information into interviewing document
- Create instructions for using the CD-ROM application
- Collect visual examples from design publications and the internet related to graphic design and advertising
- Gather information from books and magazines and the internet related to graphic designers and advertising agencies
- Logically sort information
- Interview artists in these fields and compile information into interviewing document

1. To establish a clear understanding of the impact of digital imaging on visual communications; specifically print media and advertising

1. To compile information and create a document containing interview results

2. To explore techniques and provide examples of implementation

3. To identify important factors involved in this area
Appendix I
Thesis Planning Report continued
Goals, Objectives, Processes and Strategies continued

- To develop an interactive multimedia application
  - to design and compose an application containing an overview of history and imagery
  - to apply user friendliness and interactivity which will appeal to the target audience
  - design announcement postcard
  - create mind map
  - produce story board
  - gather historical references
  - gather imagery for mm project
  - gather information relevant to final project for announcement card
  - distribute announcement card

- To communicate the importance of digital imaging in relation to advertising
  - to critically analyze the positives and negatives of digital imaging
  - understand who and why we are using these techniques
  - write evaluation form
  - utilize committee to test concepts
  - show committee members work in progress

- To make my research and findings accessible to the target audience
  - to enable the viewer to learn and explore at their own pace the findings of my research
  - to provide verbal information that will accentuate information delivered in the announcement card
  - deliver postcard announcement to sophomore, junior and senior graphic design and photography classes
  - deliver copy to Department Head, Dean of College and President of RIT
  - distribute an evaluative survey one week after the audience has used the application

- To determine methods to indicate the project's success and functionality
  - to establish evaluation methods that will enable me to determine whether I have met my initial goals
  - to create evaluation form to provide with the application
  - distribute to select professors in CIAS
  - distribute to graduate and undergraduate peers
  - exhibit CD-ROM application and user manual during thesis show
  - record reactions and responses
Appendix I
Thesis Planning Report continued
Glossary

Account executive: an advertising agency employee primarily responsible for maintaining liaison with designated agency clients, and for development and control of advertising plans for clients.

Advertising: printed or spoken matter that calls attention to a product or service. As defined by the Dictionary of Advertising: 1) a marketing process which uses advertisements directed to prospects as a means of meeting marketing objectives; as a marketing tool, advertising is uniquely able to reliably and quickly deliver consistent messages, efficiently. 2) a commercial profession or craft which seeks to develop and place advertisements in the most productive, efficient manner possible.

Advertising agency: an independent commercial service organization that contracts with advertisers to develop and manage their advertising, for a fee or for a commission derived from a standard media discount on the advertiser's spending.

Art Director: an employee of an advertising agency or similar organization who is responsible for developing the general design and supervising the final artwork and typography of advertisements.

Aesthetics: a coherent system of criteria, which can be purely visual, moral or social, or any combination of these, used for evaluating works of art.

Analysis: a separating or breaking up of any whole into its parts, esp. with the examination of these parts to find out their nature, function or interrelationship.

Animation: to give life to, to stimulate action or motion.

Ambiguity: the quality or state of having two possible meanings; unclear.

Application program: brand name commercial software that perform specific tasks, such as imaging, word processing, spreadsheets.

Bitmapped: images made up of individual dots, each of which have a defined value that precisely identifies its specific color, size and place within the image.
Appendix I
Thesis Planning Report continued
Glossary continued

Campaigns: projects that have more than one component or are communicated through more than one medium.

CD-ROM: Compact Disc Read Only Memory - a compact disk that can hold prodigious amounts of digital information.

Communication: a giving or exchanging of information, signals or messages by talk, gestures, writing, etc.

Creative Department: consist of writers, artists, television producers, print mechanics, and coordinators.

Creative Director: an advertising agency employee responsible for managing the operations and personnel of a creative group or department.

Designer: Produces the detailed visual concept. Converts the problem into a form to be proposed to the client. Actually draws or lays out a prototype. Works with the specifics of type style, paper, colors, and so on. Often overlaps the activities of the art director, and vise versa. Plans, conceptualizes and administrates projects form start to finish.

Digital: refers to the two numbers, zero and one, that a computer can recognize.

Digital Imaging: the act of producing edited, enhanced or altered images through the use of a computer and other digital devices.

Filter: the name given to a single command that applies special effects or certain editing processes to images.

Form: the shape, outline, or configuration of anything; structure as apart from color, material, etc.

Graphic Design: activity of combining typography, illustration, photography and printing for purposes of persuasion, information or instruction.

Illustrator: creates the images that need to be delineated or painted. Also, may produce the preliminary "comps" or sketches needed by the art director or designer. May be specialized by product machines, charts, clothing, story boards, or technique: air brush, pen and ink, collage.
**Appendix I**

**Thesis Planning Report continued**

**Glossary continued**

<table>
<thead>
<tr>
<th>Interpretation</th>
<th>the act of explaining the meaning of</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logo</td>
<td>letters or word formed into distinctive and unified form. Can often provide the basis for a company trademark, brand or corporate identity.</td>
</tr>
<tr>
<td>Macintosh</td>
<td>a type of computer manufactured by Apple used by many digital imagers.</td>
</tr>
<tr>
<td>Metaphor</td>
<td>a figure of speech that provides an understanding of one thing in terms of another.</td>
</tr>
<tr>
<td>Multimedia</td>
<td>a simultaneous presentation of a series of effects in more than two media; sound, images, movies etc.</td>
</tr>
<tr>
<td>Pragmatics</td>
<td>the relationship between signs, their context, and interpreters.</td>
</tr>
<tr>
<td>Production Artist</td>
<td>produces the mechanical material necessary to reproduce the product. Follows the creative activity with the technical material needed by the printer or manufacturer. Someone has to produce the project. Print production people need to know about typefaces, taste, costs, readability, personality of product, printing, engraving, imaging and desktop publishing.</td>
</tr>
<tr>
<td>Psychology</td>
<td>the science dealing with the mind and with mental and emotional processes.</td>
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<tr>
<td>Representamen</td>
<td>that which represents an object.</td>
</tr>
<tr>
<td>Rhetoric</td>
<td>study and application of the artful, effective, and persuasive, use of language (signs).</td>
</tr>
<tr>
<td>Semantic</td>
<td>the relationship between the representamen and the object; the meaning that the signs conveys.</td>
</tr>
<tr>
<td>Semiotics</td>
<td>the knowledge and science of signs.</td>
</tr>
<tr>
<td>Syntax</td>
<td>the relationship within and between representamen; how signs are actually constituted.</td>
</tr>
</tbody>
</table>
Appendix I
Thesis Planning Report continued
Glossary continued

User friendly an industry buzzword to describe hardware and software that is particularly easy to set up and operate by computer novices and others without a technical background.

Visual communicating messages through visual media; such as print, Communications information design, photography, illustration, multimedia, world wide web and television.
Appendix I
Thesis Planning Report continued
Bibliography

Appendix 2
Whole System Map Sketches

Digital Imaging

Impact of each other

Advertising

Benefits

Semiotics

Graphic design

Syntactics

Semantics

Pragmatics
The Impact of Digital Imaging on Advertising
Digital Imaging

The act of producing edited, enhanced or altered images through the use of a computer and other digital devices.
### Curtis Circulation Company

#### Averages for Six Months Ending 06/30/95

<table>
<thead>
<tr>
<th>Category</th>
<th>Subscription Sales Dollars</th>
<th>Single Copy Sales Dollars</th>
<th>Subscription Sales Dollars</th>
<th>Single Copy Sales Dollars</th>
<th>Total Sales Dollars</th>
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<td>95,526</td>
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#### 2 Percent Change

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## Appendix 3

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### FAC Fax Analysis for Second Half 1996 vs 1995

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### Publication Information

- Curtis Circulation Company
- Publication Information
- Averages for Six Months Ending: 06/30/96
  - Single: Subscription, Copy, Retail
  - Composition: Total
- Averages for Six Months Ending: 06/30/95
  - Single: Subscription, Copy, Retail
  - Composition: Total
- 2% Percent Change
  - Curtis Circulation Company Publication Information
### Curtis Circulation Company Publication Information

#### FAS-PAX Analysis for Second Half 1996 vs 1995

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### Curtis Circulation Company

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Appendix 4
Categories pertaining to visual examples found

**Types of Magazines to use**
- bridal
- business
- children
- computer
- fashion/lifestyle
- fitness/health
- home/garden
- news
- pictorial
- tabloid
- weekly
- photographic/camera
- science (technology)
- sports
- teen
- woman's
- general
- service

**Magazines used to date**
- Architectural Digest
- Color Publishing
- Cosmopolitan
- Digital Imaging
- Discover
- Health
- Marie Claire
- The New Yorker
- Nickelodeon
- People
- Photo/Design
- Pre
- Publish
- Science Fiction Age
- Smart Money
- Sports Illustrated
- Wired

**Categories**

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<td>female</td>
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<td>male</td>
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<td>Subtraction - removing an existing element to interrupt previous meaning</td>
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Appendix 5
Sample letter written to professionals for opinions

Tom Ockerse
Vice President, GDEA
Rhode Island School of Design
Graphic Design Department
Providence, RI 02906-3509

Dear Mr. Ockerse,

I am a graduate student in the Graphic Design Program at Rochester Institute of Technology and am currently conducting research for my thesis project. Professor Deborah Beardslee provided me with a list of members on the Board of Directors of GDEA and suggested I contact you for advice.

My topic, The Impact of Digital Imaging on Visual Communications, focuses on the impact that digital imaging may be having on the design profession. My intention is to focus specifically on print media (rather than television or other time-based media).

I was hoping you might have a few minutes to spare, in order to answer the following questions from your professional design perspective:

1. Is there a difference between graphic design and advertising design? If so, how would you define the difference?

Based on the definition of digital imaging as the act of producing edited, enhanced or altered images through the use of a computer and other digital devices,

2. Do you feel that digital imaging has had a positive or negative effect on the design profession? Please explain.

My project will ultimately lead to an interactive cd-rom for students who plan to study design. Including the views of current design professionals would add to the integrity of this application.

Perhaps you might know of other resources, online or off, concerning my project? Any suggestions will be greatly appreciated. Thank you very much for your help. I hope to hear from you soon.

Sincerely,

Holly Coulter

graduate94@aol.com
hcc1560@rit.edu

608 Park Avenue 8B
Rochester, NY 14607
Appendix 5
Compilation of Answers Received

Paul Nini - GDEA
- the difference between graphic design and advertising design is intent
- advertising design is "meant to persuade"
  (usually to cause a purchase of some sort)"
- graphic design is "meant to inform"
- graphic designers "present information to allow audiences to make
  informed choices, or so we hope"
- digital imaging "has allowed designers greater control over how they
  combine text and imagery"
- not only do designers have access to these tool, so do others "without the
  same training. While I'm not so concerned about these individuals taking
  work away from designers, I am concerned that designers have not done
  more to differentiate themselves from desktop publishers and the like"

Chris Pulley - CEO Buck & Pulley
- difference between graphic design and advertising design is that
  "at a good ad agency a great deal of effort is put into training everyone,
  art directors included, in the principles of marketing and understanding the
  client's business rather than simply focusing on the design aspects of a
  project. In other words, graphic design is just one aspect of effective
  art direction"

John Skrabec - AIGA Colorado
- advertising design is "more sales and marketing driven. Advertising design
  has to work harder to get attention"
- graphic design "usually is encountered in print collateral, or other similar
  intimate interaction, so I don't think it has to work as hard"
- Digital imaging is a "tremendous tool designers can add to their arsenal"

Dan Woychick - AIGA MN
- "A graphic designer thinks of things that an advertising designer wouldn't -
  flow, rhythm, sequence (brochure-mailing requirements, environmental
  concerns)"
- advertising design is "a single surface, single page"
  "Someone who is a very good graphic designer should be able to create
  and design a good ad. Someone who has only worked on ads may have
  more difficulty translating those skills to other design applications which
  call on skills that aren't used in the creation of ads".
- (the digital imaging question is) "not a yes or no answer - positive and
  negative effects are: positives are "better control, new possibilities"
  negatives are "professions obliterated, expensive, copyright issues, changed
  time frames- customers expect faster turn around"

Bruce Meader - RIT
- graphic designers "communicate ideas and information"
- advertising designers "sell a product or service"
Similarities include - "communication, conveyance of a message to an intended audience,
both use words and pictures, visual means as the vehicle to carry message, any visual
communication has some kind of persuasive component"
### Appendix 5

#### Letter Information

<table>
<thead>
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letters written to:
Appendix 5
Letter Information continued

letters written to:

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January 29, 1997
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January 29, 1997
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January 29, 1997
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January 29, 1997
Professor Bruce Ian Meader
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January 29, 1997
Professor Alan Singer
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January 31, 1997
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January 31, 1997
Michael Rock
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January 31, 1997
Paul Nini
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January 31, 1997
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January 31, 1997
Anna Bush
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January 31, 1997
Mr. John Bowers
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January 31, 1997
Mr. Leif Allmendinger
Treasurer GDEA
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MISC
January 27, 1997
Bryan Forman
Advertising Art Direction
b4man@4man.com
through Advertising Professionals Online experience in advertising art direction

January 27, 1997
Jim Nuttle
President ADCMW
jnuttle@his.com
Dear Mr. Nuttle,
President of ADCMW

January 30, 1997
Mr. Ralph Yenau
President Al Collins Graphic Design School
a@collins@goodnorth.com

January 27, 1997
Jim Nuttle
President ADCMW
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President of ADCMW

January 27, 1997
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Advertising Professionals Online experience in advertising art direction

January 27, 1997
David O'Brien
President/Creative Director O'Brien Advertising and Design
dobdr@primenet.com
Advertising Professionals Online, President and Creative Director of company
Appendix 5
Letter Information continued

letters written to:

<table>
<thead>
<tr>
<th>not deliverable</th>
<th>replies</th>
</tr>
</thead>
</table>
| January 31, 1997 Michael Rock gdt_faculty@QuickMail.Yale.edu | Mon. 27 Jan 1997 15:09:41 -0500 From: cpulleyn@pulleyn.com (Chris Pulley)
'hec1560@rivax.isc.ri.edu"
| January 27, 1997 Dean Gerrie President AIGA Orange County Dulagerrie@soi.com | Mon. 27 Jan 1997 18:33:20 -0500 From: AIGA WashDC@aol.com
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| January 27, 1997 Barry Graham President AIGA Birmingham AIGABG629@aol.com | Tue. 28 Jan 1997 07:30:17 -0500 From: AIGA@aol.com
hec1560@rivax.isc.ri.edu |
| January 31, 1997 Mr. John Bowers bowers@umich.edu | Tue. 28 Jan 1997 14:00:11 -0500 From: AIGACO@aol.com
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| January 27, 1997 Lynn Kinoshita President AIGA Honolulu AIGAHonolulu@aol.com | Thu. 30 Jan 1997 12:17:10 -0500 From: AIGAMINN@aol.com
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GSEA |
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Appendix 6
Thesis Show Panel Sketches

* * * screen shots for cd rom

Visual Communications
Graphic Design
Advertising Design

The Impact of Digital Imaging on Visual Communications
Digital Imaging
Graphic Design
Advertising Design

Print Media
Mag. poster movie director

computer
user manual
Appendix 7
Thesis Show Panels
Descriptions for Panels

Original sizes for posters 1, 2 and 4 were 36" x 22"
Poster 3 was 22" x 22".
All were mounted on foam core and protected by glass.
The posters were accompanied by small 5" x 5" panels also mounted on foam core and protected by glass in order to assist the viewer in understanding the content of the panels.

<table>
<thead>
<tr>
<th>The Impact of Digital Imaging on Visual Communication</th>
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<tbody>
<tr>
<td>Holly Catherine Coulter</td>
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</table>

<table>
<thead>
<tr>
<th>Introduction</th>
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<tbody>
<tr>
<td>This thesis focuses on how graphic design and advertising design have been affected by the use of digital imaging in print media. An interactive educational application was created to introduce high school and college undergraduate students to these two specific fields of communication, enabling them to make informed decisions regarding future educational or career choices.</td>
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<table>
<thead>
<tr>
<th>Visual Examples</th>
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<tr>
<td>This table is a collection of magazine advertisements which include images or typography manipulated primarily by digital imaging. The categories of addition, exaggeration, substitution and subtraction were used to classify the scope of techniques utilized in communicating messages within the advertisements.</td>
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<tr>
<td>The function of this map was to plan the overall structure of the interactive application including all possible navigational choices. Within the application, the map functions as a navigational tool, allowing interactive access to the different areas.</td>
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<tr>
<th>Application Frames</th>
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<td>The following images are screen captures from the interactive application. They are examples of what a user would encounter when navigating within the application.</td>
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Appendix 7a
Final Introductory Panel

The Impact of Digital Imaging on Visual Communication
The Impact of Digital Imaging on Visual Communication / Visual Examples

**Addition**
Introducing a new element with existing elements to emphasize the meaning

**Exaggeration**
Overemphasizing characteristics of an existing element to heighten meaning

**Substitution**
Introducing a new element in place of an existing one to alter the meaning

**Subtraction**
Removing an existing element to interrupt previous meaning
The Impact of Digital Imaging on Visual Communication
Appendix 8
Logo Sketches
Appendix 10
Application Frame Sketches

Introduction
Setting up "notes"

remind you that you can click the image to see more information.

Table of Contents

Visual Communications
Digital Imaging
Print Media
Graphic Design
Advertising Design

Digital Imaging

the set of producing, editing, enhancing or altered images through the use of a computer or other digital devices.

Print Media

every form of two-dimensional information that has been printed using ink.

Visual Communications

every form of two-dimensional information that has been printed using ink.

58
Appendix 10
Application Frame Sketches continued

Graphic Design
activity of combining typography, illustration, photography and printing for purposes of persuasion, information or instruction

Advertising Design
printed or spoken matter that calls attention to a product or service

Visual Communications

Graphic Design
works of combining typography, illustration, photography and printing for purposes of persuasion, information or instruction

Advertising Design
printed or spoken matter that calls attention to a product or service

Examples

Absolute Vodka

Adobe Photoshop

Adobe Illustrator

Visual Communications

communicating messages through visual media

Adobe Photoshop

Adobe Illustrator

Digital Imaging

Filter Effects

Adobe Photoshop

Adobe Illustrator

Visual Communications

Adobe Photoshop

Adobe Illustrator

Digital Imaging

Filters

Adobe Photoshop

Adobe Illustrator

Digital Imaging

Filters
Appendix 10
Application Frame Sketches continued

Filters
Adobe Photoshop
Text

I selected the part of the image I wanted to change and applied the over-flow.

Digital Imaging
Filters
Adobe Photoshop
Adobe Photoshop is a number of image applications on the market today. Although there are other photo editing programs, there are many plugins you can add.

Advertising Design
Brief history
The art理工 has the last 100 years been transformed into digital forms. The rise in popularity was evident as the move toward digital took place. Then the invention of printing presses made it easier for artists to market their work, and magazine and newspaper advertising became more common.

The following are famous works from the past:

Graphic Design
Brief history
There are many famous designers from the past that all designers should know about. There are many famous designers from the past that all designers should know about. There are many famous designers from the past that all designers should know about.

The following are famous works from the past:

Approaches
Historical
In the earlier days of advertising there were no computers. Everything was done by hand. In the earlier days of advertising there were no computers. Everything was done by hand. In the earlier days of advertising there were no computers. Everything was done by hand. In the earlier days of advertising there were no computers. Everything was done by hand.

Contemporary
Today, we are fortunate to have computers as tools. Photoshop and compositing are created in the computer where all the information is transformed into digital media. Today we are fortunate to have the computer as a tool. Images layers and composites are created in the computer where all the information is transformed into digital media.
Appendix I
Application Frames  continued
read from left to right
Appendix 12a
Sample Evaluation Form

The Impact of Digital Imaging on Visual Communication
Holly C. Coulter
Thesis Project Evaluation

Please circle the mark you feel is most accurate in answering each question below.

1. Overall this Thesis Project was
   - interesting
   - boring

2. I thought the Thesis Project was
   - useful
   - waste of time

3. After experiencing this project, I had learned
   - something
   - nothing

4. Navigation through this Thesis Project was
   - easy
   - difficult
   - clear
   - confusing

5. The amount of information was
   - sufficient
   - insufficient

6. The organization of information was
   - logical
   - illogical

7. Visually this Thesis Project was
   - pleasing
   - not so pleasing

8. In general, the screen sequences were
   - clear
   - confusing

9. The inclusion of the overall organizational Map was
   - helpful
   - not helpful

10. The image examples used were
    - relevant
    - irrelevant
    - stimulating
    - boring

11. The color coding of the different sections was
    - helpful
    - not helpful

12. The overall screen designs were
    - interesting
    - boring

13. The explanations in the different sections were
    - useful
    - not useful

14. The Help page was
    - helpful
    - not helpful

Additional Comments / Suggestions:
Appendix 12b
Evaluation Results

Graph to show each student's response to questions in relation to one another

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Graph to determine how many similar or different answers were given for each question

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