The Anatomy of Information Design

Young Kook Kim

Approvals

Chief Adviser: R. Roger Remington

Date May 22, 1997

Associate Adviser: Deborah Beardslee

Date 22 May 1997

Associate Adviser: Bruce Ian Meader

Date 22 May 1997

Department Chairperson: Mary Ann Begland

Date June 2 1997

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The College of Imaging Arts and Sciences
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Master of Fine Arts.

The Anatomy of Information Design

by Young-Kook Kim

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Thesis Project Definition

Introduction

A sub-discipline of Graphic Design, Information Design addresses the ways in which audiences receive and respond to messages transmitted in a variety of classifications, including sign systems, charts, tables, maps, explanatory panels, etc.

Today's fast-paced international commerce and travel and the massive relocations of many racial and ethnic groups require increasingly more consistent trans-cultural forms of communication. This thesis project responds to the problem: *How do you teach college level design students the visual components and categories used in Information Design for the purpose of communicating effectively across language and cultural barriers?* One solution to the problem was the creation of a basic educational publication for those who are learning about Information Design. The book exists as a study guide titled *The Anatomy of Information Design*, which will be used in RIT's new *20th Century Information Design* class, an interdisciplinary course providing an historical, definitive view of Information Design.

In the West, during the latter part of the nineteenth century – and closely linked to the Industrial Revolution – the study and application of Information Design began to evolve. Now, due to the spread of computer technology, the industrialized nations' economic bases have shifted and rely increasingly on the gathering, packaging, and selling of information. Furthermore, increasing globalization brings together a vast number of verbal language discrepancies. Today, more than ever, visual language has become critical to the transmission and reception of ideas and data.

To achieve the goal of producing *The Anatomy of Information Design* study guide, the following objectives were set:

- to gather and analyze historical and theoretical texts on Information Design;
- to synthesize and define the components and the categories of Information Design based on the aforementioned literature searches;
- to create a matrix for organizing Information Design based on the synthesis of its categories and components;
- to create a study guide that helps students understand Information Design through a number of examples and definitions, including the matrix;
- to evaluate the study guide through the use of a design evaluation form in the college classroom;
- to refine the study guide based on student feedback;
- to publish *The Anatomy of Information Design* study guide for classroom use and dissemination on the World Wide Web.

Course Experience

In the Spring 1996 Information Design class, Professor Deborah Beardslee offered the opportunity to do further research on Information Design. Previously, I had only a general interest in this topic. Professor Beardslee's course, however, inspired me to undertake this thesis project.

Team Involvement

In September 1996, my thesis plan for this project was submitted to Professor R. Roger Remington. Coincidentally, he was developing a new distance learning course titled *20th Century Information Design* (see Appendix C 1). He supported the thesis plan and challenged me with the development and design of a course module that presents fundamental design categories and components for the students in his new course (see Appendix C 2). As a result of collaboration with faculty, students, and experts in related fields, the first iteration of *The Anatomy of Information Design* was developed (see Appendix C 3).

Research and Analysis

Personal Experience

As a foreigner driving in America, I have experienced the consequences of different forms of information communication. When I tried to find certain places and follow directions in Rochester, NY, well-organized traffic sign systems and maps played important roles as travel guides. In contrast, it was very difficult to travel in Boston, Massachusetts, because of complicated and incorrect information systems.

As a result of that experience, I considered the importance of visual communication language in terms of visual language, sign systems, symbols, maps etc. I asked myself, 'How does the conveyance of this information affect the public and society? How can the public and society function more efficiently via visual information communication?' My more immediate concern involved the transmission of Information Design knowledge to students and how those students might themselves address these questions.

Research

Initially, two research methods were employed: traditional literature searches and web site research. Gathering the material for the project's content involved close readings of these texts and analysis of visual materials. Over one hundred books, professional journals, and general-readership magazines were consulted. Over fifty web sites were studied and are listed in the bibliography (see Appendix B 3).

After this research was accomplished, it became clear that the verbal language used to describe visual images is fairly consistent even though the terms may vary. The six categories and ten components that comprise *The Anatomy of Information Design* matrix were culled from these texts. In cases where authors used different words to refer to the same concept, this researcher chose the most connotative terms to include on the matrix.

As the matrix (which determined the content of the study guide) was developed, all graphic materials gathered were tested against the matrix. Each cell of the matrix was then filled with the strongest example of the appropriate component and category characteristics. This matrix structure and testing exercise provides students with the tools for classifying Information Design examples using these categories and components.

At the end of the project, an analysis of a draft version of the study guide was undertaken using student assessments for the purpose of refining its content and layout.

Representative Books

Peter Wildbur's *Information Graphics* presents a number of previously separate areas of Information Design using international examples. *Information Graphics's* section titles formed the basis for the matrix categories. These categories were then revised following additional critique and editing by committee members. These categories were proposed as a functional vocabulary of the different forms of Information Design.

Envisioning Information, by Edward R. Tufte, includes a variety of information design examples suggesting an arrangement of examples by category. Moreover, Tufte's classifications were illustrated by various historical examples.

Representative Articles

Information Design Journal critically presents the current information environment and existing problems through in-depth articles written for design professionals. Other reference materials are listed in the Bibliography (see Appendix B 3).

Representative Theories

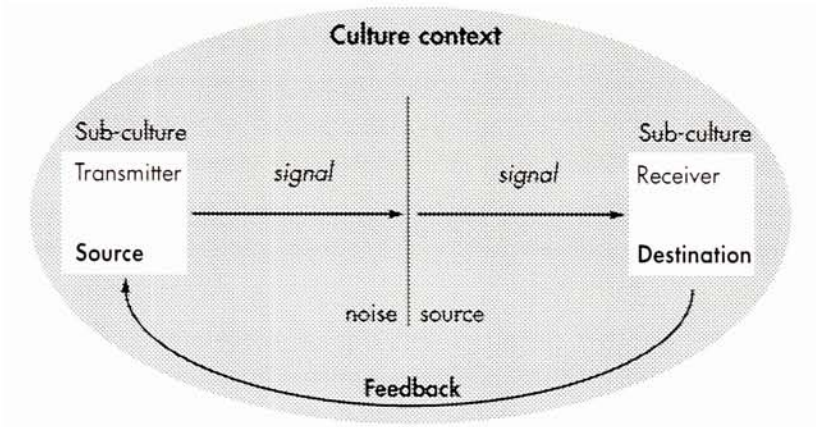
Several design theories – Semiotic Theory, Perceptual Theory, Visual Rhetoric, Systems Theory – are closely related to Information Design (see page 9, 19). Among many theories, the Communication Theory structure can also apply to information communication. It establishes the relationship between transmitter and receiver.

Communication Theory

The first model of the communication process was produced by Claude Shannon and Warren Weaver in 1949. These two engineers originated their theories from working with mechanical communication processes but were quick to apply their model to the field of human systems.

Their model of an informative source encoding a message, which is then transmitted along a channel to a receiver, who then decodes the message and reacts in some way, has provided the basis for many subsequent models. Nevertheless, it does not show the important effects that feedback and the cultural context have on all the stages in the process, especially at the source and destination.

A revised diagram might show the overall social context and the sub-cultures at the source and receiving ends. For example, a red road sign in the shape of an octagon is recognized in a number of sub-cultures as a stop sign, even though the word "stop" is written in different languages. Without a shared experience, such as the red octagonal sign, in these sub-cultures, communication may not occur.



Synthesis

The Information Design field includes a variety of communication vehicles such as signage, charts, tables, maps, and explanatory panels. The intention of *The Anatomy of Information Design*, based on the research that preceded the writing and design of the study guide and matrix, is to reveal and explain in simple visual and verbal terms the characteristics that are found in effective visual communication.

The essential methods of this process included gathering and analyzing many examples. In the classification phase, the examples were organized on *The Anatomy of Information Design* matrix following an evolving attempt to define the categories. This matrix was used as a research tool.

The project committee developed and/or approved pre-existing 'simple visual and verbal terms' for the study guide based on research materials. The functional relationships of the components and categories for the matrix were also assessed and/or revised in those meetings, as were the design theories to be included in the guide. Sometimes, the articulation of elegant (simple and clear) definitions and the identification of appropriate illustrations and precise theories proved confusing, spurring debate among the development team members.

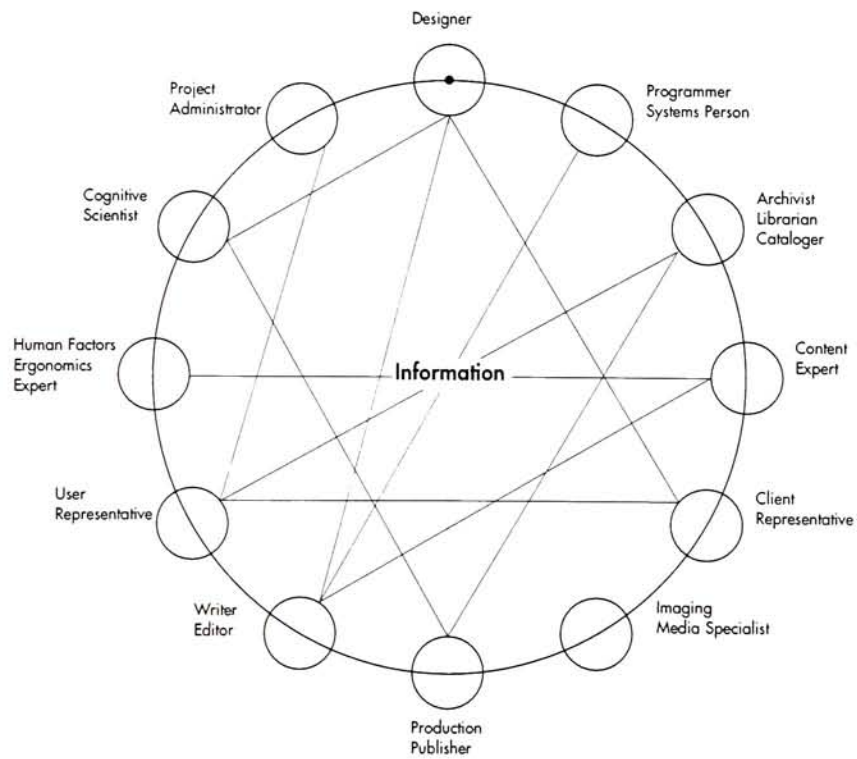
Precise statements of design theory (including Semiotic Theory, Perceptual Theory, Visual Rhetoric, and so on) were located in order to establish meaningful connections and make the matrix and evaluation worksheet more useful. Focusing on the Semiotic Theory and applying it to the evaluation worksheet proved more complex because students may have difficulty understanding the terms used. Defining and arranging the terms under components and categories on the matrix proved less provocative as these elements have been long-established in the general practice of design.

General schedule

The course development team consisting of Professor R. Roger Remington, Dr. Richard Fasse, Sonny Stowe, Manager of Educational Technology Center, Cliff Commanday, RIT graduate student in Graphic Design, and Young-kook Kim met every Wednesday during the academic year. In these meetings the direction of the new course, *20th Century Information Design,* and its modules was established. From these meetings a relationship between design and allied fields emerged, which forms the basis of the collaborative model (see Appendix A 4).

A collaborative model for the design of information

Shaping effective messages requires a wide range of professional competencies for design, development, implementation and distribution. Shown below is a map of key strategic disciplines involved in the process of developing information design applications and their collaborative potential.



Fall 1996

The thesis proposal was submitted. A planning report was developed for the thesis project in the Project Development and Evaluation class (see Appendix A 2).

Winter 1996-97

1st committee meeting objectives

- To consider pioneering and contemporary works through the illustrations used in the Information Design matrix.
- To order components simply and clearly.
- To order components from simple to complex.
- To order components to show a comparison between basic visual components and design principles.
- To develop different kinds of matrices.
- To use the matrix as a key research tool.
- To identify the theories most related to Information Design.
- To evaluate project work at both intermediate and final stages.
- To gather a group of definitions about Information Design.

2nd committee meeting objectives

- To revise evaluation worksheet in structure and definition.
- To refine prototype study guide content ordering.
- To discuss thesis exhibition plan and the development of the explanation panels and spread pages of study guide.
- To develop a collaborative teamwork model.

Information Design theories and resources were provided by Dr. Richard Zakia.
Four interrelated theories were selected for the study guide: Semiotic Theory, Perceptual Theory, Visual Rhetoric, and Systems Theory.

Theory	Definition
Semiotic Theory	A theory which addresses sign processes in society and serves as a means for improving activities pertinent to human expression, communication and signification. Also known as Sign Theory.
Perceptual Theory	Visual structures can be organized and systematically manipulated using the Gestalt Principles that can influence the way a viewer perceives them.
Visual Rhetoric	Rhetoric is a vocabulary which describes the effective, persuasive use of speech. Invented by the ancient Greeks, rhetoric is the oldest theory of language in the West. It is always directed towards practice; it describes the living, social function of language, not its abstract grammar. Rhetoric is theoretical and practical, a tool for describing existing statements and for designing new ones.
Systems Theory	Whole systems theory comes from systems analysis and is based on these principles: 1) The boundaries of the project must be established. 2) The whole consists of parts but is more than the sum of the parts. 3) The project is a dynamic, open system, and anticipates and will provide for using new inputs in the future.

Several versions of the matrix were developed considering the relationships among these theories. An evaluation worksheet was then created as a tool for evaluating Information Design examples selected from a matrix cell or from other research materials (see Appendix B 3).

The study guide's content and application were determined early in the development process, as was the inclusion of the collaborative model suggested by Professor Bruce Ian Meader. This model is important to the study guide's content because it clearly shows the student the integration of design and allied fields. As the field of design and society itself become more complex, students must recognize the importance of developing a number of professional relationship in various fields (see Appendix A 4). This collaborative model was refined following feedback by Professor R. Roger Remington.

Professor Deborah Beardslee suggested gathering definitions of Information Design from the International Institute for Information Design in Vienna, Austria.

Spring 1997

The Anatomy of Information Design project presentation, matrix, and study guide test version were presented in Professor Roger Remington's junior year Information Design class. The large format matrix, an overhead projection, and a thirty minute lecture were presented. After the presentation, Professor R. Roger Remington provided the students with additional comments on this project. The anatomy module continued to be used throughout the 1997 Spring Quarter. The test version of the study guide has been used by Professor R. Roger Remington's junior year Information Design class.

The feedback provided by the junior year Information Design class produced two major study guide formatting changes:

1) the paper size was changed from 8.5 X 11" to 8 X 8" and
2) the printing of the pages was changed from single-sided to double-sided. Additionally, some minor changes were made to the matrix's terminology for clarity purposes.

Development of the Matrix

Through research, many examples of Information Design were gathered and were included in the content of this thesis project. The matrix provided an effective way to organize and present the basic components and categories in the study guide.

Each cell of the matrix contains an image or images that illustrate the meeting points of the categories and the components. A large format of the matrix was made for a presentation to committee members and to junior level students at RIT in the 1997 Spring Quarter. After the presentation, the matrix was modified and reduced to fit in the study guide. Some cell illustrations were replaced when better examples were found. The first idea for the matrix was to compare strong and weak design examples, but this idea required a larger, more complex matrix. Thus, the matrix was developed using only the most representative visual images.

The first version of the matrix had six categories and more than fifteen components of structural elements (see page 12).

Six categories –
- Alphanumeric
- Pictogrammatic
- Product Interface
- Diagrammatic
- Spatial/Cartographic
- Informative/Explanatory

Fifteen components –

Line/Rule	Typography
Grid	Layout
Color	Symbols
Shape	Texture
Audio/Sound	Photo
Proportion	Composition
Format	Rhythm
Space	System
Motion Graphics/Kinetic	Forms

These categories and components were revised using the committee's suggestions. The first version of the matrix included some overlapping terms from graphic design, such as Layout and Format. Also, because the design principles (Proportion, Composition, Format, Rhythm, Space, System) originally included as components are much broader in scope than

the design elements (Line/Rules, Typography, Grid, Layout, Color, Symbols, Shape, Texture, Motion Graphics/Kinetic forms, Audio/Sound, Photography), they were removed from the matrix. The components were then re-ordered. Lastly, the terminology of categories was not parallel. For example, Pictogrammatic clearly involves pictorial examples but the term Informative/Explanatory has two different purposes. Thus, the category Hybrids was created to encompass the Explanatory, Informative, and Instructional categories.
The final version of the matrix has six categories and ten components (see page 13).

Matrix Version 1

Anatomy of Information Design Structural Matrix

Categories of Information Design

Anatomy	Alphanumeric	Pictogrammatic	Product Interface	Diagrammatic	Spatial/ Cartographic	Informative/ Explanatory
Line/Rules						
Typography						
Grid						
Layout						
Color						
Symbols						
Shape						
Texture						
Motion						
Graphics/Kinetic forms						
Audio/Sound						
Photography						
Proportion						
Composition						
Format						
Rhythm						
Space						
System						

Matrix Version 2

Anatomy of Information Design Structural Matrix

Categories of Information Design

Components	Alphanumeric	Pictogrammatic	Product Interface	Diagrammatic	Spatial/ Cartographic	Informative/ Explanatory	Hybrids
Line/Rules							
Typography							
Organization System							
(Grid/Layout)							
Color							
Shape							
Texture							
Motion Graphics							
(Kinetic forms)							
Audio/Sound							
Photo/Imagery							

Matrix Version 3/Final version

Anatomy of Information Design Matrix

	Alphanumeric	**Pictogrammatic**	**Product Interface**	**Diagrammatic**	**Spatial/ Cartographic**	**Hybrids** Explanatory, Informative, Instructional
Components	Categories					
Dot						
Line/Rules						
Shape						
Texture/ Tone/Value						
Spatial Organization System/Grid						
Typography						
Color						
Imagery						
Sound						
Motion						

Development of the Study Guide

Content

The study guide's content has three main parts – Information Design categories, components, and theories – as well as the definition of Information Design in the introduction, a collaborative model for the design of information, the evaluation worksheet, biographies, chronology, bibliography, glossary of terms, and *The Anatomy of Information Design* matrix.

Format

Initially, the format of the study guide was rectangular/horizontal 11 X 8.5".
This format reflects the shape of the matrix and evaluation sheet. As a result of the first and second evaluations, the rectangular format was changed to an 8 X 8" square format. The square format allowed for economical printing on both sides of the pages. The design of the study guide uses a three-column grid, text and images. The typeface is Futura, and the book is coil bound. Images in the study guide are black and white, making publishing and reproduction more economical.

Typeface sizes are:	heading	10pt bold;
	sub heading	10pt bold;
	text	8pt roman; and
	caption	6.5pt roman.

8.5 X 11" Format

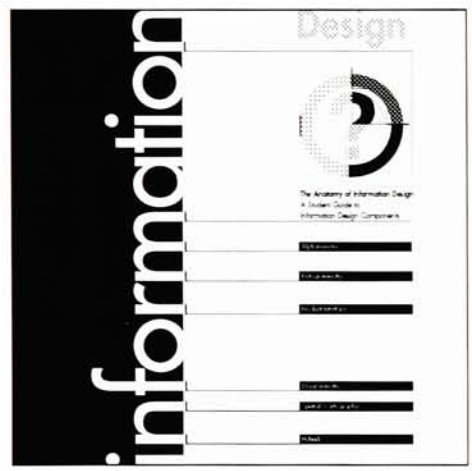
8 X 8" Format

Development of Cover and Symbol

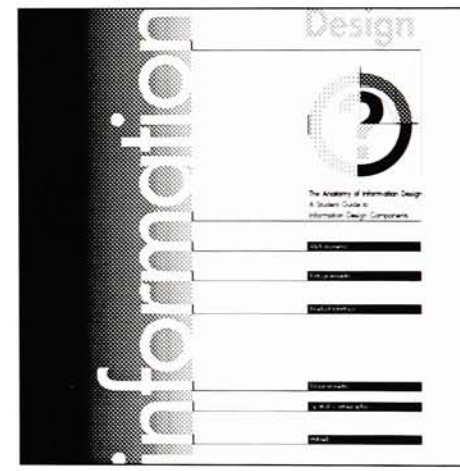
The study guide cover was designed using an altered London Underground map, a landmark in Information Design, by Henry C. Beck. Using this image illustrates the strong relationship between the cover image and title. The early designs for the cover are shown below.

The symbol on the study guide cover is based on the eight components of the matrix. The final symbol on the study guide is a texture/tone/value example (see page 16).

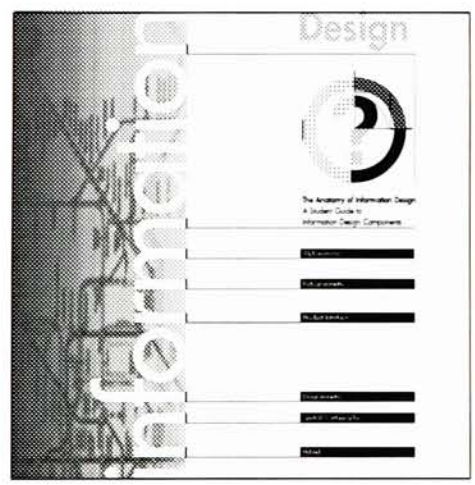
Cover Design Version 1



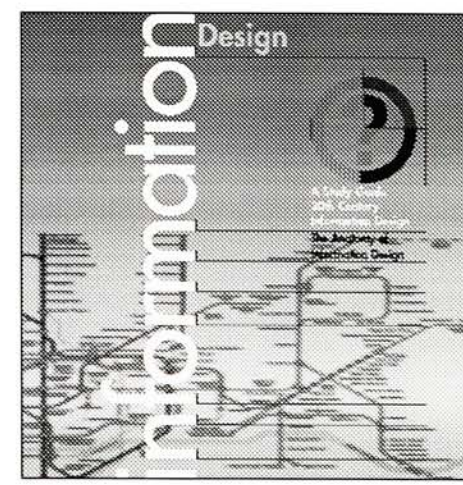
Cover Design Version 2



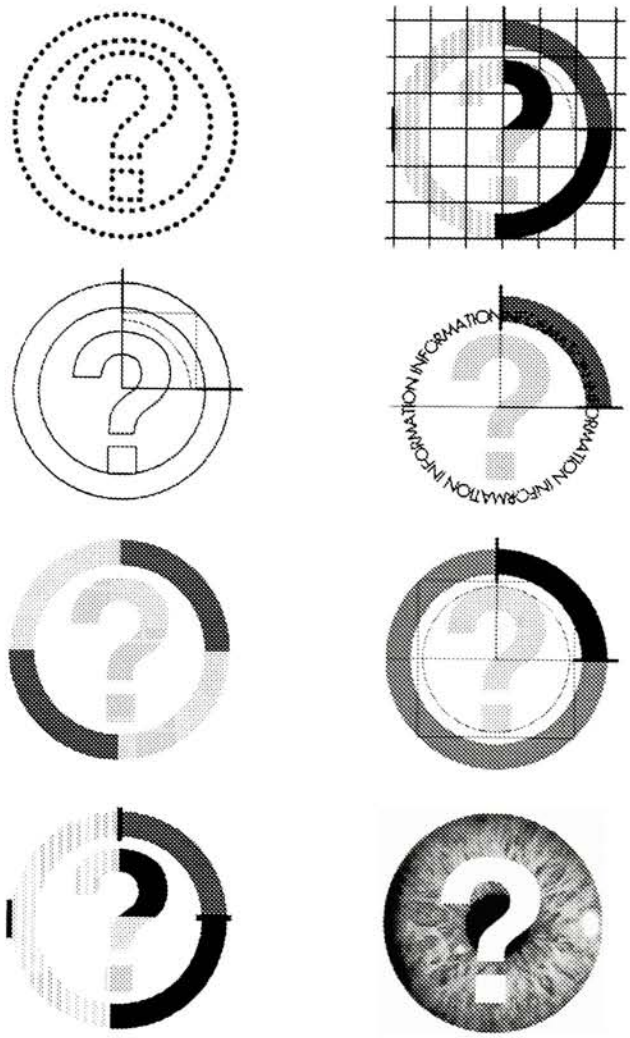
Cover Design Version 3



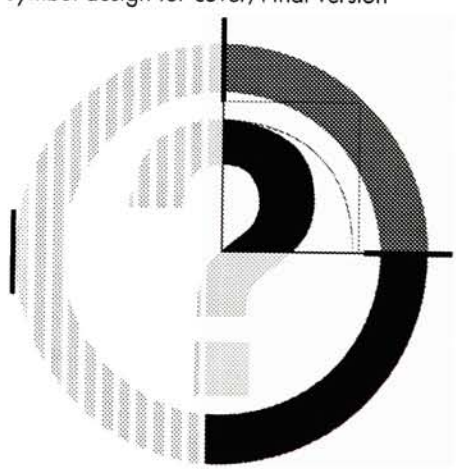
Cover Design Version 4/Final version



Symbol design based on eight components



Symbol design for cover/Final version



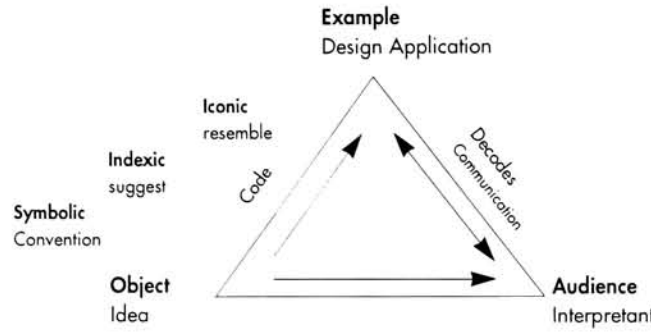
Development of Evaluation Worksheet

The evaluation worksheet is to be used by the student audience to assess the effectiveness of particular Information Design examples. This evaluation worksheet is based on semiotic theory. The diagram at the top of the worksheet shows the relationship between object, application, and audience – the three units of communication. The reader selects and analyzes an example for its meaning and content. Comments can be written in each block. (see page 18 and 19.)

Evaluation Worksheet Version 1

Evaluation WorkSheet

This model provides an objective template for evaluating Information Design using a structure from Semiotic Theory.

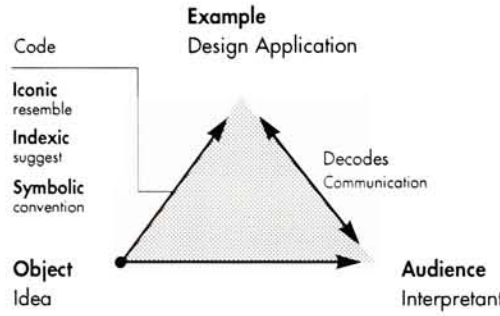


		Alphanumeric	Pictogrammatic	Product Interface	Diagrammatic	Spatial/ Cartographic	Hybrids: Explanatory, Informative, Instructional
Interpretant Matrix Analysis	**Examples**						
	Signified						
Signifiers	**Iconic**						
	Indexic						
	Symbolic						
Three Factors for Function and Use	Syntactic						
	Semantic						
	Pragmatic						

Evaluation Worksheet Version 2/Final version

Evaluation WorkSheet

The model provides an objective template for evaluating Information Design using a structure from Semiotic Theory.



		Alphanumeric	Pictogrammatic	Product Interface	Diagrammatic	Spatial/ Cartographic	Hybrids: Explanatory, Informative, Instructional
Interpretant Matrix Analysis	**Examples**	**PTT Telecom Company signage** Bureau Mijksenaar	**Deusches Fernsehen** Anton Stankowski	**Canon EOS brochure** 1995			
	Signified	Signage means company.	Logo means company.	Brochure explains camera and its parts.			
Signifiers	**Iconic**	Viewer can recognize Building.	Viewer can recognize Typeface and lines.	Viewer can recognize camera and camera parts.			
	Indexic	PTT logo indicates company.	Organic lines show 'vibration' between initials D and F.	Every part points to camera.			
	Symbolic	PTT symbolizes company logo.	Logo symbolizes company name.	Product symbolizes product name			
Three Factors for Function and Use	Syntactic	Strong type face PTT size is a hyperbole.	The two initials are communicated.	Images show an elaboration.			
	Semantic	PTT logo is legible and clearly communicated.	Organic lines suggest movement.	Camera and its parts show complexity.			
	Pragmatic	PTT logo is an advertisement.	Logo is a symmetry form.	Brochure is an explanatory advertisement.			

Evaluation

The Anatomy of Information Design study guide was evaluated for content, organization, matrix effectiveness, and adequacy of the evaluation work sheet. Evaluation of the study guide proceeded in three phases: preliminary evaluation, intermediate evaluation, and retrospective evaluation.

Preliminary Evaluation

The preliminary evaluation was undertaken in a junior year Information Design class. Evaluation was performed twice: at the beginning of the quarter and during mid-quarter. Student feedback was used to refine the study guide and provided more critical analysis of the organization of material within the guide. (see Appendix A 6.)

Study Guide/Feedback Summary from Junior Year Information Design Class

- Presentation was informative to junior students.
- Study guide content was well structured.
- 8.5 X 11″ one-sided format wasted paper.
- The terminology applied to the matrix was unclear.
- The content required re-ordering to make it more understandable.
- Adding definitions would be helpful to understanding Information Design.
- More components should be added to the matrix.
- Enlarged matrix images would be easier to decipher.
- Cover design and logo were well designed.

Intermediate Evaluation

Intermediate evaluation was held in the Bevier Gallery during the thesis exhibition. This evaluation included an informal discussion with an audience of professionals in the graphic design field as well as with non-graphic designers. Their feedback suggested the use of more popular terms to improve the communication of design concepts.

Another part of the intermediate evaluation involved a study guide feedback form completed by the same students in the junior year Information Design class. The students responded to a number of questions on a sliding scale from weak (1) to strong (6). The results are as follows:

Question	Average response
About Anatomy of Information Design Matrix	
Can you read and understand the matrix?	4.1
Do the category headings communicate well?	5
Do the component headings communicate well?	5
About Evaluation Worksheet	
Can you read and understand the diagram on evaluation worksheet?	4.6
Does this model help you to evaluate the examples?	4.8

(see Appendix C 5.)

Retrospective evaluation took place at the end of this thesis project (see page 24).

Implementation

A prototype of the study guide was handed out to the junior year Information Design class at RIT on March 20, 1997, during a presentation about this thesis project and matrix. The users' responses supported making a strong concept and logical ordering.

After the preliminary evaluation, changes were made to the study guide format and to the matrix. As discussed, the paper size was reduced and the pages were printed double-sided. Minor changes to the matrix included size adjustments, label positioning, and number of examples per cell. Changes to the study guide ordering were made in consultation with committee members. The collaborative model for Information Design was moved from the middle of the study guide closer to the beginning. The ordering of the components and the categories was inverted. The chronology and *The Anatomy of Information Design* matrix were moved from the beginning of the study guide to the end. This revised version was shown in the thesis exhibition.

After the thesis exhibition, the thesis project and the study guide were revised again based on the audience feedback and committee members' feedback. Minor stylistic changes were made to the study guide for purposes of clarity and emphasis. Also, some images were enlarged for easier viewer recognition. One image (the London Underground Map, by Henry C. Beck) was added to more clearly illustrate the Diagrammatic section. Due to this addition, other images were re-located, and one image (Egyptian pictograms) was removed from the Pictogrammatic section.

Dissemination

Short-term Dissemination

Following dissemination of the prototype study guide and matrix to design students, the thesis project was exhibited in the third of three thesis shows in the Spring of 1997 at the Bevier Gallery, RIT.

The exhibit included an explanation panel, a matrix, a study guide, and six spreads from the study guide. The project summary explained to the general public background interests, project description, project goals, a definition of Information Design, and the research methodology diagram (see Appendix A 2).

The Anatomy of Information Design matrix showed many Information Design landmarks. The matrix facilitated the understanding of the interrelationship of basic categories and components in design.

Long-term Dissemination

In the 1998 Fall Quarter, *The Anatomy of Information Design* study guide and matrix will be used in the new *20th Century Information Design* course as a key course hand out. The distance learning course and study guide act as an introduction for prospective students who are interested in distance learning and Information Design. Students who register for the course will receive the study guide in their course packets.

The *20th Century Information Design* course will be introduced on the RIT Online and World Wide Web. A new module for elements of Design Archive Online is being developed for *20th Century Information Design* which will incorporate *The Anatomy of Information Design* as a module (see Appendix C 4).

Retrospective Evaluation

After the thesis show, the study guide's content and structure were revised based on the feedback from the audience and from thesis committee members.

Audience Feedback

During the exhibition, the chance to communicate with the public about Information Design provided useful feedback. For example, they suggested avoiding the use of scholarly terminology in the study guide, on the evaluation worksheet, and on *The Anatomy of Information Design* Matrix. Also, the public thought that the visual examples on the matrix in the study guide were too small in size and not easy to recognize. This significant problem was driven by page size and economical considerations. The solution would be to use a larger size page to create a fold out matrix page. The study guide now shows larger images that enable the viewer to recognize the examples in the category sections.

Committee Members Feedback

The primary suggestion from committee members was to replace some images on the matrix with examples of historical landmarks, such as *Sweet* catalog by Ladislav Sutnar, *Isotype* by Otto and Marie Neurath, and *Fortune Magazine* by Will Burtin. Another suggestion was to place emphasis on the designer's position within the collaborative model for Information Design. Committee members also recommended the use of parallel language structure and placement of terms on the diagram at the top of the evaluation worksheet so that it is more understandable.

The study guide will be updated continually, based on feedback from future student audiences.

Conclusion

More than ever, people worldwide are deluged with visual information which, to be effective and communicate clearly, requires the highest quality of Information Design. Consequently, Information Designers have become increasingly important, especially in societies that base their international economies on knowledge and data as commodities. These visual communicators work to make learning efficient and to convey concepts across cultural and language barriers thereby facilitating such things as travel and commerce via tools that include telecommunications and printed matter. Moreover, not only do Information Designers need to work in different cultural and linguistic environments, they also need to establish relationships with professionals in different, related fields.

To affect future generations of Information Designers, more educational tools, which themselves are the best examples of Information Design, need to be created. To that end, this thesis project was the development of the study guide *The Anatomy of Information Design*. It introduces the basic Information Design elements and their interrelationships, and gives students both the language and the theories of their future profession, as well as the means for evaluating their own designs and those of others.

I, myself, will put to good use in my own work the contents of the study guide and matrix. Also, I will rely upon the invaluable experiences of having researched my subject. Working with a team to create an instructional product economically and in a timely manner was also an important experience. And, as a matter of personal interest, I now have a knowledge of Western perspectives on design that will invariably expand the aesthetic sensibilities that I developed in my homeland of Korea.

As for the future of *The Anatomy of Information Design*, I hope that it continues to evolve and that it remains the guide for the *20th Century Information Design* course. Perhaps, someday, it can benefit as a primer for students in Korea. It would be particularly helpful to those who plan to study Information Design in the United States.

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Appendix A 1 Thesis Proposal

The Thesis Proposal explains this thesis project's purpose.

Thesis Proposal for the Master of Fine Arts Degree

College of Imaging Arts and Sciences
Rochester Institute of Technology

Title: **The Anatomy of Information Design**

Submitted by: Young Kook Kim Date: September 18. 1996

Thesis Committee

Chief Adviser: R. Roger Remington

Associate Adviser: 1. Deborah Beardslee

2. Bruce Ian Meader

Thesis Committee Approval:

Date:

Approval, Department Chairperson:

Date:

Computer needs other than word processing:

Yes _____ No _____

Explain need of equipment:

Committee Approval: _____

_____

_____

I propose to study Information Design as a process of communication to the general public. The world has become complex, dynamic, and multidimensional, creating a new diversity of information categories within the visual communication field. Information Design, being concerned with the efficiency and function of messages, can affect the sensibility and actions of the audience to aid in the understanding of messages. Information Design should involve a suitable and well-developed concept to provide clarity of content.

This thesis will involve a study of the syntax of Information Design (typography, color, grid, layout, and image). This research will manifest itself as a module to support the course, *Design History in Cyberspace: 20th Century Information Design,* in development by Professor Roger Remington in cooperation with RIT Center for Digital Media and the Office of Distance Learning.

Appendix A 2 Planning Report

The Planning Report, developed in Fall 1996, outlines the basic structure of the project and includes the following: Situation Analysis; Project Description; Mission Statement; Goals, Objectives, Processes and Strategies; Research Methodology Diagram; and Time/Implementation Plan.

Project Title: The Anatomy of Information Design

Client and address: R. Roger Remington — Rochester Institute of Technology, office 3404 1 Lomb Memorial Dr., Rochester, NY 14623 — T/716-475-2658

Designer and address: Young Kook Kim — 22-4G Fairwood Dr., Rochester, NY 14623 — T/716-424-7811

Situation Analysis

Our world has moved from the industrial age to the information age. Digital processing has rapidly promoted the measure of the quantity, diversity, and speed of delivery of information. The information revolution is characterized by two major changes: the availability of a computer and a population living in a new information environment. The diversity of this information environment requires improved study of the history of information design and communication between creators and audience use and preserve of language of visual communication.

Project Description

This project will be an interpretive study of the visual elements used in Information Design. I will create an instructional module for students. It will involve suitable components and well-developed visual vocabularies, providing through clear content the anatomy of information design and how it can affect the sensibility and actions of the audience to aid in the understanding of messages. This module, functional and educational, will be an integral part of R. Roger Remington's new course, *20th Century Information Design. The Anatomy of Information Design* module will enhance the learning opportunities for students in the class.

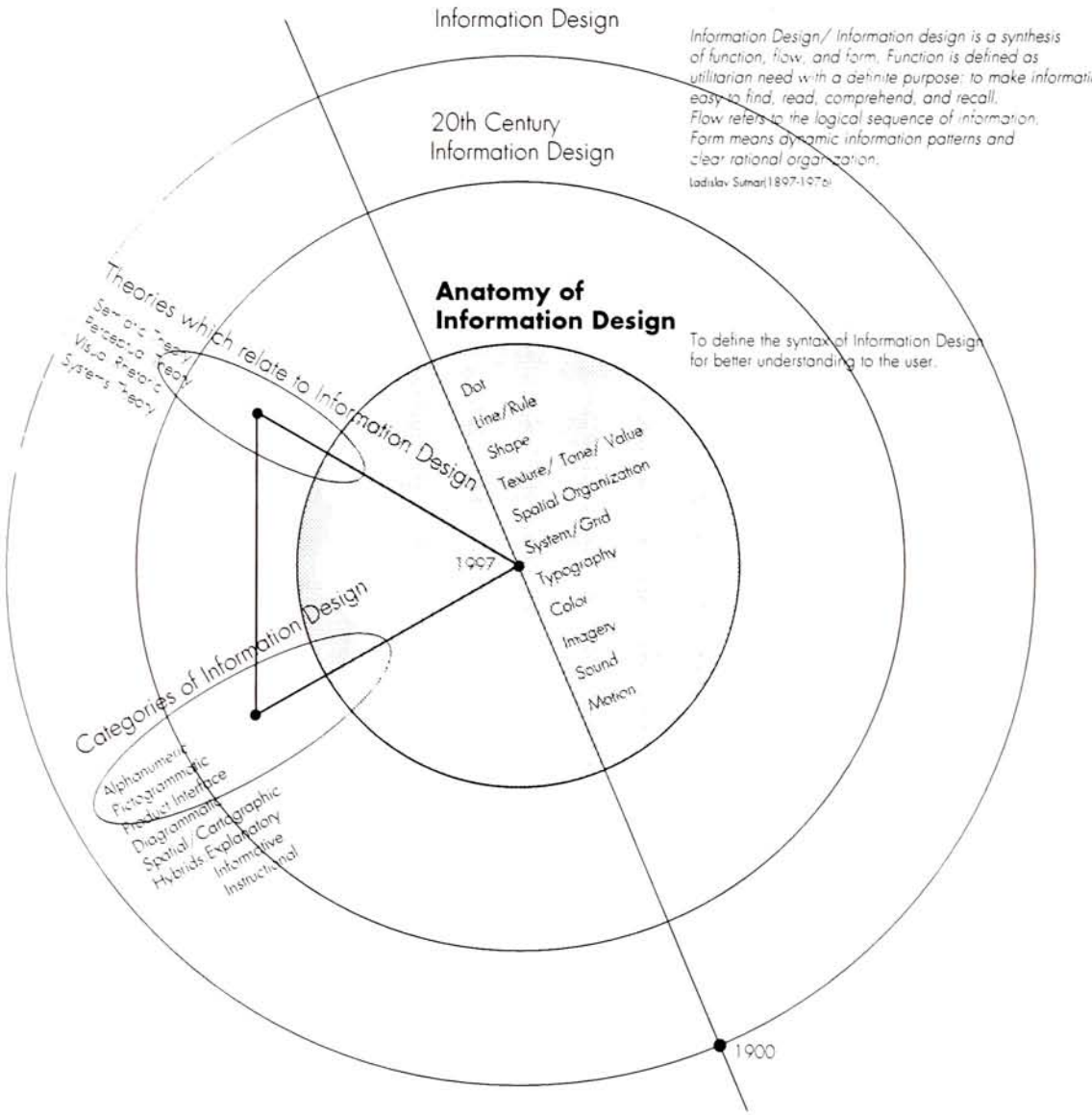
Mission Statement

This project involves a study of the syntax of Information Design. It will be concerned with presenting essential information about the component part of Information Design to the audience. Knowledge of this content will allow the user to create more effective messages.

Goal	Objectives	Processes and Strategies
To gather historical and theoretical data about the syntax of Information Design by doing **research and analysis** on this topic.	To identify and examine the component parts of Information Design.	1. To make a bibliography. 2. To do research about the Information Design syntax (Typography/image/layout/color). 3. To recite and sort the historical information in Information Design.
	To examine the history of Information Design. Proportion, Format, Space, Typography, Layout, Symbols, Shape, Audio/Sound, Composition, Rhythm, System, Grid, Color, Rules, Texture, Photo, Motion Graphics/Kinetic Form	1. To make a bibliography. 2. Gather graphic historical works. 3. To do research about quotes on Information Design.
	To identify the theories of Information Design.	1. To make a bibliography. 2. To analyze the informational elements. 3. To create a data-base of - Gestalt principles - Perceptual theory - Whole system theory.
To **define** the syntax of Information Design for better understanding to the user.	To examine the function of visual elements through resources.	1. Analyze and synthesize the functionality of visual elements. 2. To organize design elements into pragmatics. 3. To examine experimental design works.

Goal	Objectives	Processes and Strategies
	To do research the visual variables.	1.To do research about graphic elements of creating resources. 2. To create a list of graphic elements and matrices systematically.
To **create** applications of Information Design which are appropriate to guide the user.	Enable the user to understand the components of Information Design.	1. To make videotape lectures which suggest examples of Information Design (slide set). 2. To create a guide book of Information Design vocabulary. (To include index, bibliography)
	Via applications of Information Design, suggest a guideline by which the students may create Information Design projects.	1. To develop graphic resources on the web pages.(HTML) 2. To create a practical source which is an interactive application. (multimedia application)
To **facilitate a learning module** for use in the class, *Design History in Cyberspace:20th Century Information Design.*	The campus learner can take this course and implement messages. The distance learner conjoins Information Design and interdisciplinary Design Fields.	1. To provide case studies of the components of Information Design. 2. To proffer video lectures and guide book. 3. To construct this learning module on RIT on-line.
To **evaluate** this module's function and validity to *Design History in Cyberspace:20th Century Information Design.*	To recognize this module's theme of this course.	1. To test this module in an undergraduate class (in spring). 2. To survey formal evaluating methods. 3. Analyze and synthesize the gathered test results. 4. To refine this learning module.
	To be aware of the insufficiency on this topic and continue to add more information.	1. To add new Information Design that represents better understanding to the user.

Research methodology diagram



Time/Implementation plan

Date	Thesis	Institute calendar	
Sep.5	Research/Analysis	Classes begin	Labor Day
Oct.31			Halloween
Nov.5			Election Day
Nov.11			Veterans Day
Nov.20		Fall/Winter Break	
Nov.28			Thanksgiving Day
Dec.2		Classes Begin(Winter)	
Dec.9	Research Synthesis/Ideation		
Dec.16	Individual meeting		
Dec.23	**Committee meeting 1st**		
Dec.21		Holiday Break	
Dec.25			Christmas
Dec.30	Individual meeting		
Jan.1,1997			New Year
Jan.6	Individual meeting	Classes resume	
Jan.9	Individual meeting		
Jan.13	**Committee meeting 2nd**		M.L.King Day
Jan.20	Individual meeting		
Jan.27	Individual meeting		
Feb.3	Implementation/Refinement		Lincoln Birthday
Feb.10	Individual meeting		Valentine Day
Feb.17	**Committee meeting 3rd**		Washington Birthday
Mar.10	Evaluation/Refinement	Classes Begin(Spring)	
Apr.7	Writing thesis report		
Apr.28	**Committee meeting 4th** Prepare Exhibition/ Thesis Exhibition/3rd Report approved		
May24		Commencement	

Appendix A 3 Thesis Exhibition Application Plan

The Thesis Exhibition Application Plan shows the exhibition's basic format and its contents.

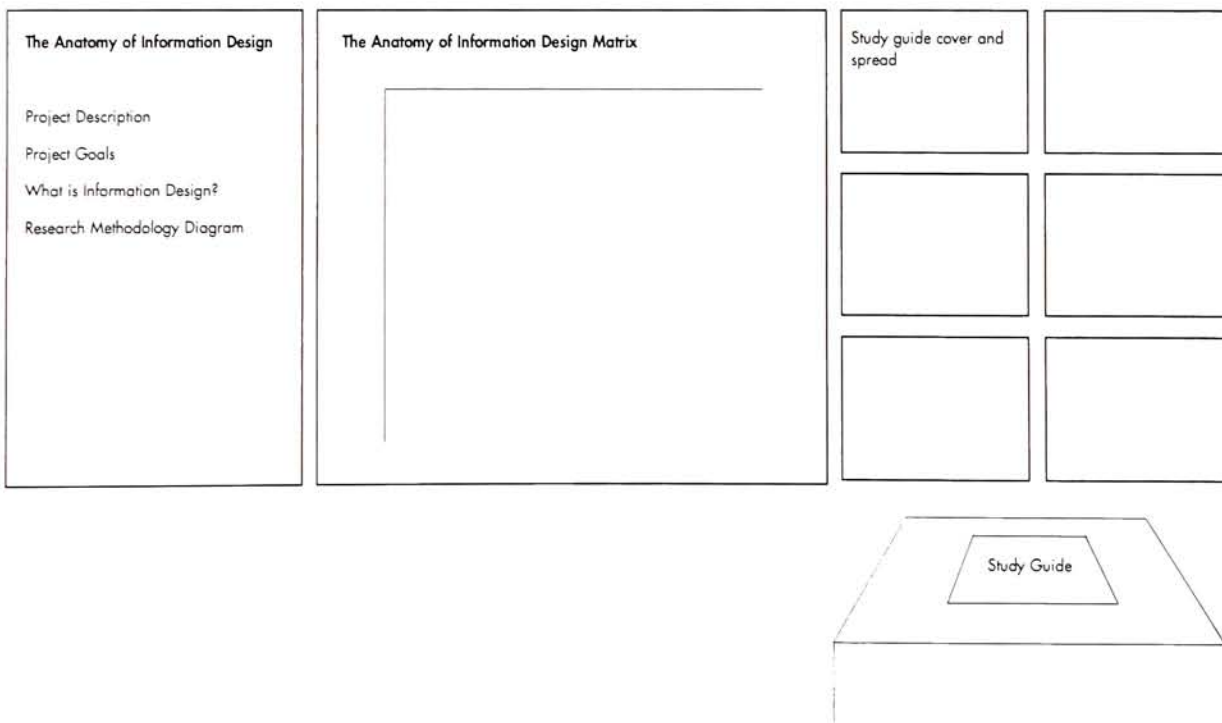
Thesis Application Plan/ Exhibition III. April 28 - May 14, 1997

Applications

Study Guide — This study guide will be use in a course titled *20th Century Information Design.* The user will be presented the categories and components of Information Design. This study guide includes definitions, matrices, and examples of Information Design landmarks.

Exhibition Panels — The exhibition panels will support a better understanding of *The Anatomy of Information Design.* It will explain methods of research and analysis.

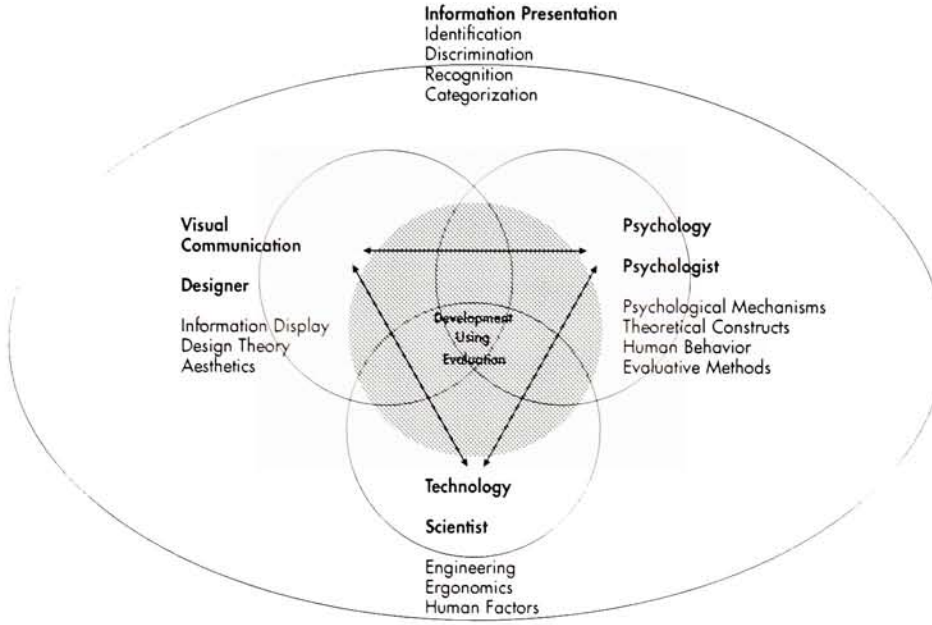
Display Methods — The exhibition panels will be hung on the wall and the study guide will be installed on a platform.



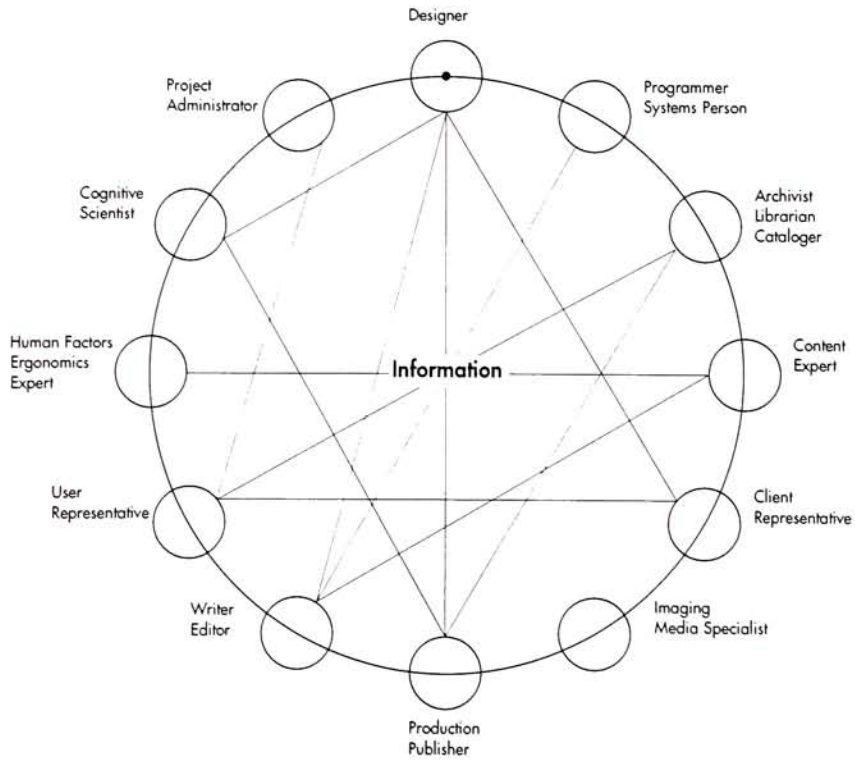
Appendix A 4 A Collaborative Model for Information Design

The Collaborative Model for Information Design is shown in its development and final stages.

Collaborative Model Version 1



Collaborative Model Version 2/Final version



Designed in collaboration with Professor R. Roger Remington.

Appendix A 5 Evaluation Feedback Form

The Evaluation Feedback Form was given to students in the Spring 1997 junior year Information Design class (see Appendix C 5 for completed forms).

Guide book Feedback April 1997

Please fill out this form while reviewing the Information Design Study Guide.
Evaluation is essential to update the study guide content. Thank you so much for your time and feedback. If you have any suggestions, feel free to stop by the graduate graphic design studio (room number 3510, Young Kook Kim).

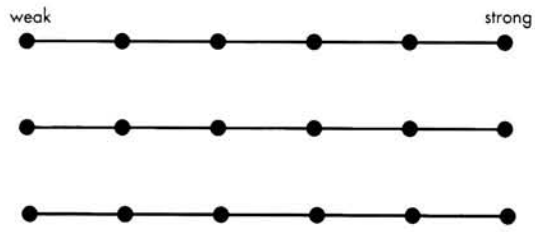
Content Communication in the study guide

What do you think is the study guide's main content?

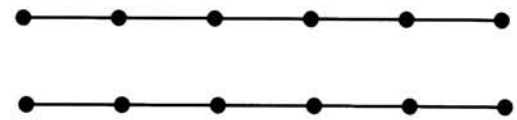
Is the content order clear?

Which are the most effective elements in the study guide?

About Anatomy of Information Design Matrix



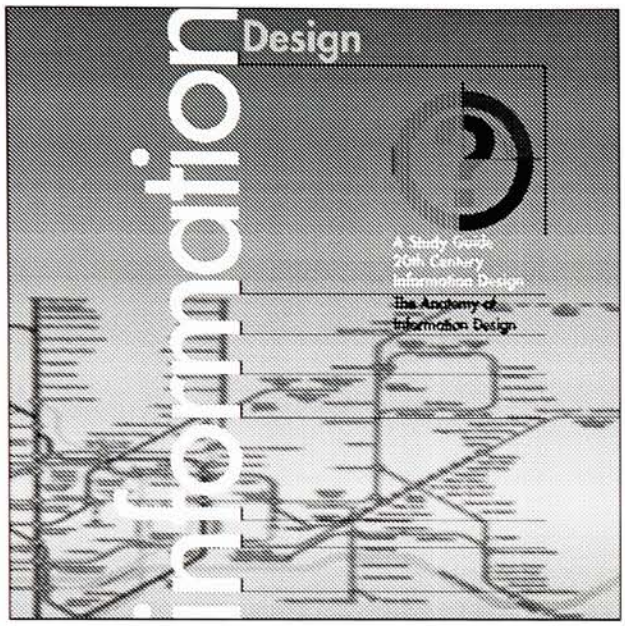
About Evaluation Worksheet



Other Suggestions

Appendix A 6 *The Anatomy of Information Design* Study Guide

The Anatomy of Information Design Study Guide is an application of this project. Reproductions of this study guide will be handed out in the course packet for the new *20th Century Information Design* course in Fall 1997.



A Study Guide 20th Century Information Design

This guide book supports a distance learning course
20th Century Information Design in development by
Professor R. Roger Remington, Graphic Design
at Rochester Institute of Technology

It was written, designed, and presented by Young Kook Kim
as a thesis project in Graduate Graphic Design.

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1997

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Introduction

What is Information Design?

Definition
Information design Field contains variety classifications which are sign systems, charts, tables, maps, explanatory panels etc. The Anatomy of Information design intended to focus the components and categories of Information design. The components show ten essential elements and the categories divide six main classifications which are proposed in order to have a functional vocabulary of the different forms of information design.

The most common definition of Information is:
the action of informing; formation or molding of the mind or character, training, instruction, teaching, communication of instructive knowledge. Information Design can be made to inform, It must be imbued with form and applied to become meaningful information and led to understanding.

Information presentation involves a wide range of professional interest groups concerned with its development and use, graphic designers, industrial designers, and typographers are primarily concerned with design...but many may not be prepared to acknowledge the importance of design and evaluation of such information.
Ronald Easterby and Harm Zwaga

Information Architect:
the individual who organizes the patterns inherent in data, making the complex clear.

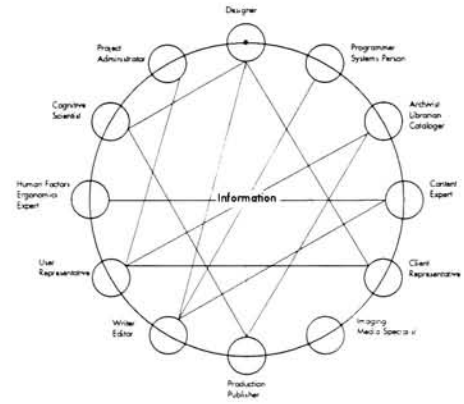
a person who creates the structure or map of information which allows others to find their personal paths to knowledge.

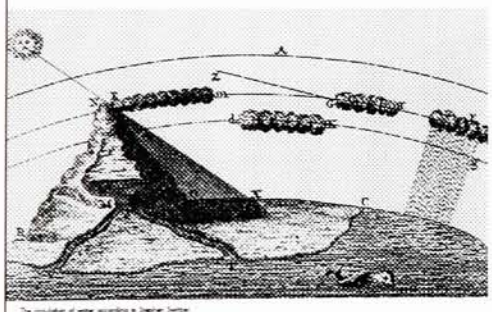
the emerging 21 st century professional discipline addressing the needs of the age focused upon clarity, human understanding and the science of the organization of information.
Peter Bradford

A collaborative model for the design of information

01

Shaping effective messages requires a wide range of professional competencies for design, development, implementation and distribution. Shown below is a map of key strategic disciplines involved in the process of developing information design applications and their collaborative potential.





The circulation of water according to Stephen Switzer
Science Museum Library, London

Information design is a synthesis of function, flow and form. Function is defined as utilitarian need with a definite purpose, to make information easy to find, read, comprehend, and recall. Flow refers to the logical sequence of information. Form means dynamic information patterns and clear rational organization.

Ladislav Sutnar

Anatomy of Information Design

03

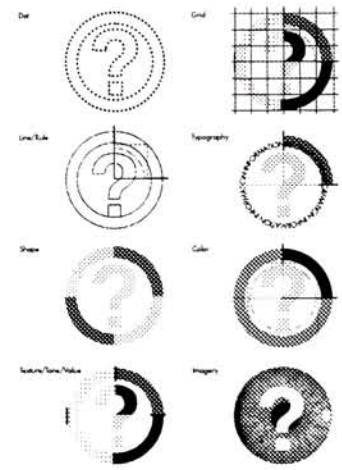
The Anatomy of Information Design is comprised of two integral parts with sub-elements as shown below:

Components	Categories
Dot	Alphanumeric
Line/Rule	Pictogrammatic
Shape	Product Interface
Texture/Tone/Value	Diagrammatic
Spatial Organization System/Grid	Spatial/Cartographic
Typography	Hybrids: Explanatory
Color	Informative
Imagery	Instructional
Sound	
Motion	

Please refer to the Anatomy of Information Design Matrix on page 22

Information Design Components

Term	Definition
Dot	A small, single point has enough visual energy to attract the eye and serve as a beginning.
Line/Rule	A single stroke of a pencil(or a computer mouse). A point is extended so that the dimension of length is primary, the form is called a line. Line is a powerful element that can be employed not only for communication, but also for organization.
Shape	A shape is concerned with the boundaries of masses. Shape may be inner or outer surfaces. Shapes may be combinations of straight lines or planes, of curved lines or planes, of straight and curved lines or planes.
Texture/Tone/Value	A type of organization method in which a quality of even modules are present by repeating a common element. Configuration may be either random or predictable.
Spatial Organization System: Grid	A structural system or framework for organizing elements within a format. A grid can be conceptual(i.e. matrix) or physical (a typographic unit grid). It can be built upon typographic, compositional or constructional bases. It can be regular, irregular or progressive in rhythm.
Typography	Arrangement and specification of type in preparation for creating application and applied to typesetting produced by any type composition system.
Color	A syntactic aspect of visual form. To aid the communication of information and as a tool of persuasion, through the use of symbolic associations which has as its dimensions hue, value and chroma.
Imagery	Imagery contain decorative illustration, such as floral patterns or other subject matter additional interest is added.(symbols, illustrations, photographs) It effectively convey a concept and mood, usually without the benefit of type.
Sound	Sound give connection to the pictures by suggesting aural information and phonetic unit. It must provide clarity and fidelity to satisfy the direction of emphasis that the picture demands.
Motion	A movement and time interact. The structuring of movement patterns in the film can articulate time, as mass articulates space. It can be manipulated to form a rhythmic flow and fluidity, and this, whether the visual images are animate or inanimate.



LCD bus stop Information System
2000&Burn Knut

The new information age will require many information designers. They will have to be capable of taking information users into account as part of their professional activity. This will require a redefinition of their job, an acknowledgement of their own limitations and an informed and sensitive awareness of the needs of information users. The last of these can only be achieved by forming better theories about users, developing methods of design research which are not dependent on outside expertise and acquiring an informed sense of the history of information design, combining all these to create new parameters to meet new communication needs and technologies.

David Sless

Information Design Categories

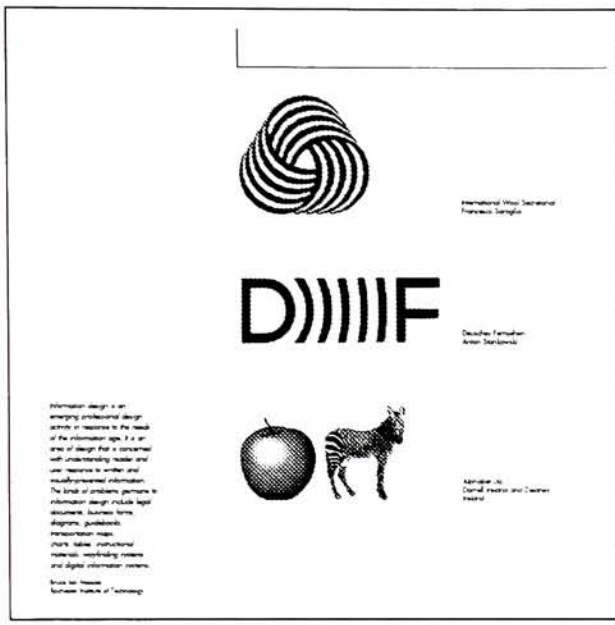
Alphanumeric

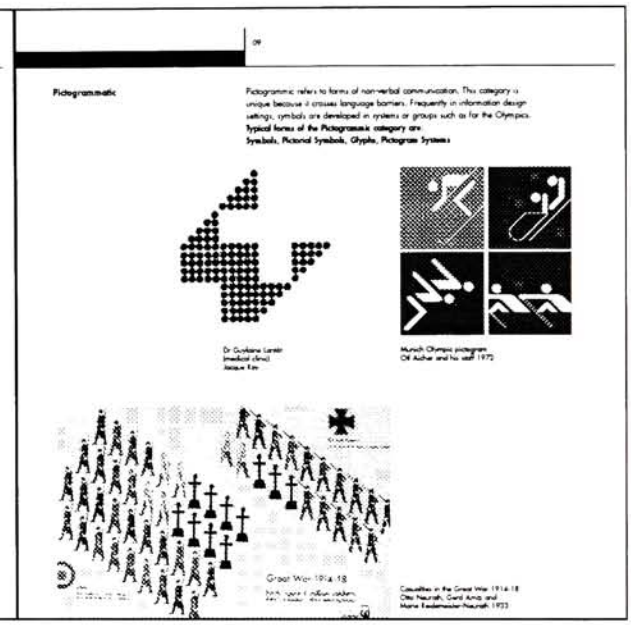
Alphanumeric refers to information design that is based on lettering and typographic systems as applied in situations where legibility and ease of reading are primary in largely verbal and numerical information.
In the instance of form design it is important to acknowledge the contribution of the user to the information presented in the completed form.
Typical Applications of the Alphanumeric category are:
Letterform Design, Type Design, Form Design, Timetables, and Signage

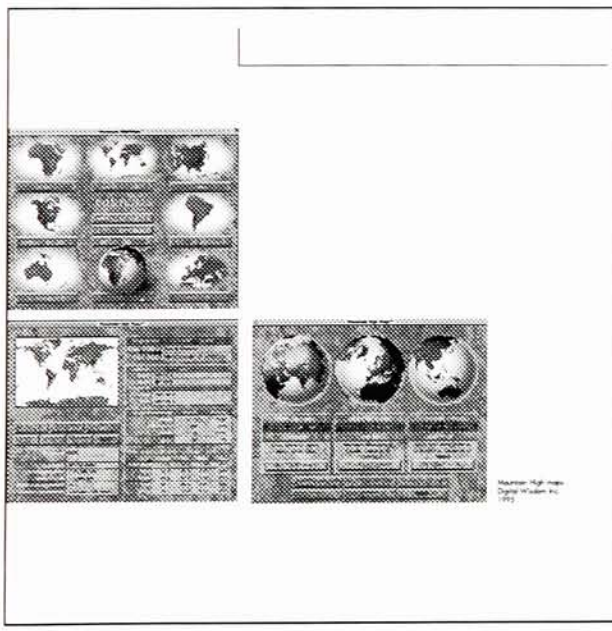
Office stationery
Lester Beall Inc 1963

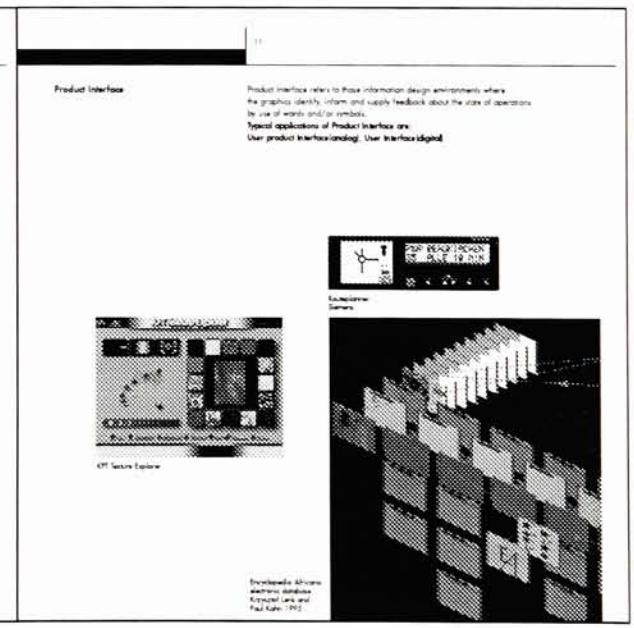
NN Building signage
Takenobu Igarashi 1981

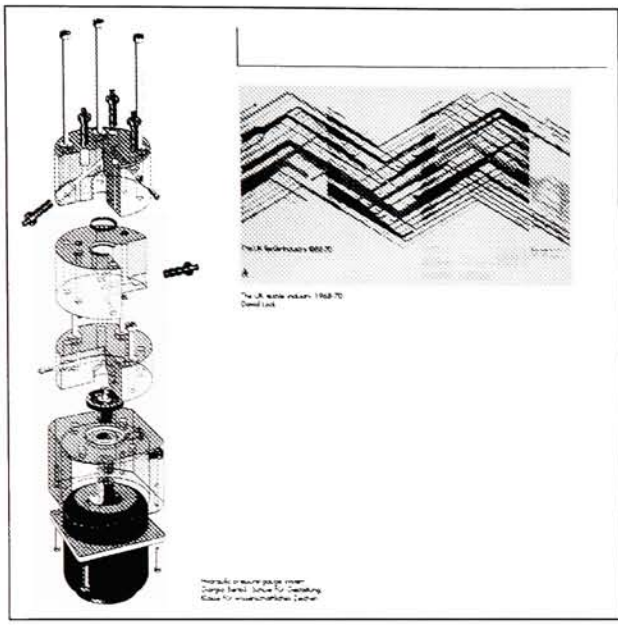
American Museum of Natural History
Signage system
Lance Wyman

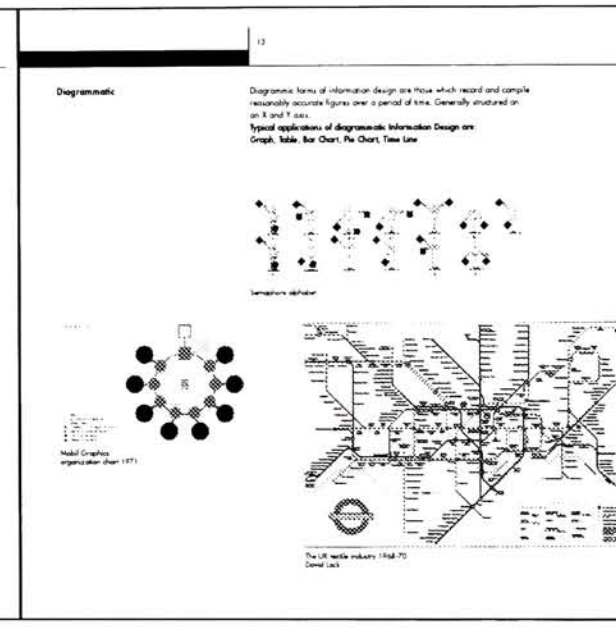


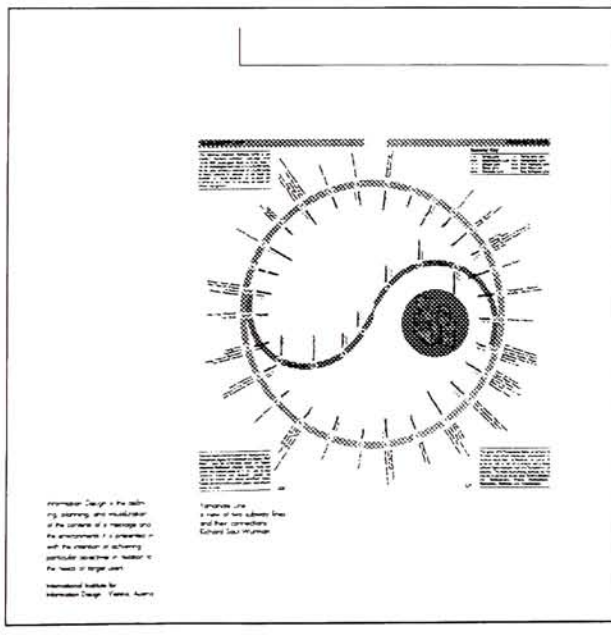

09
Pictogrammatic
Pictogrammic refers to forms of non-verbal communication. This category is unique because it crosses language barriers. Frequently in information design settings, symbols are developed in systems or groups such as for the Olympics.
Typical forms of the Pictogrammatic category are:
Symbols, Pictorial Symbols, Glyphs, Pictogram Systems
Munich Olympic pictogram
Otl Aicher and his staff 1970
Great War 1914-18

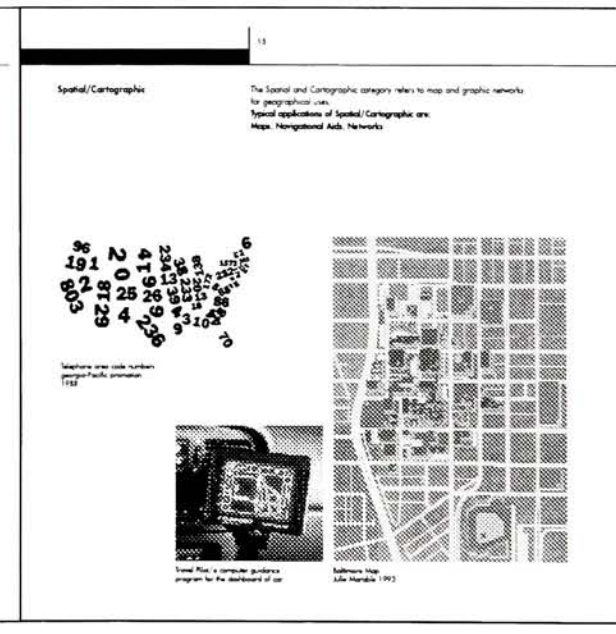


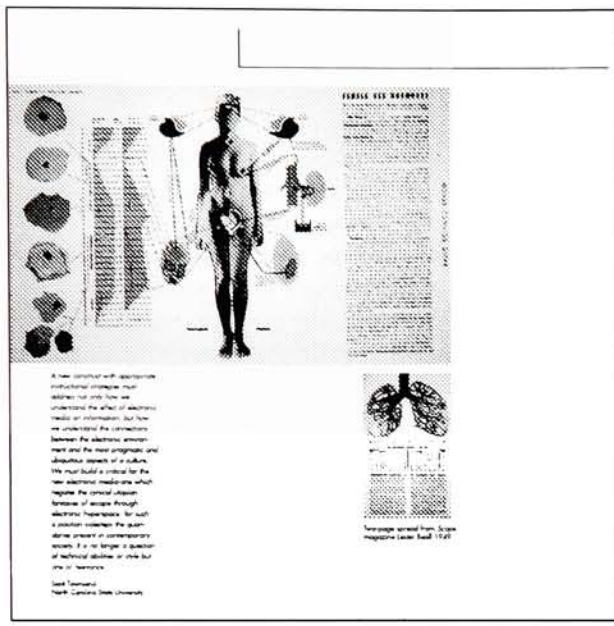

11
Product Interface
Product interface refers to those information design environments where the graphics identify, inform and supply feedback about the state of operations by use of words and/or symbols.
Typical applications of Product Interface are:
User product interface (analog), User interface (digital)

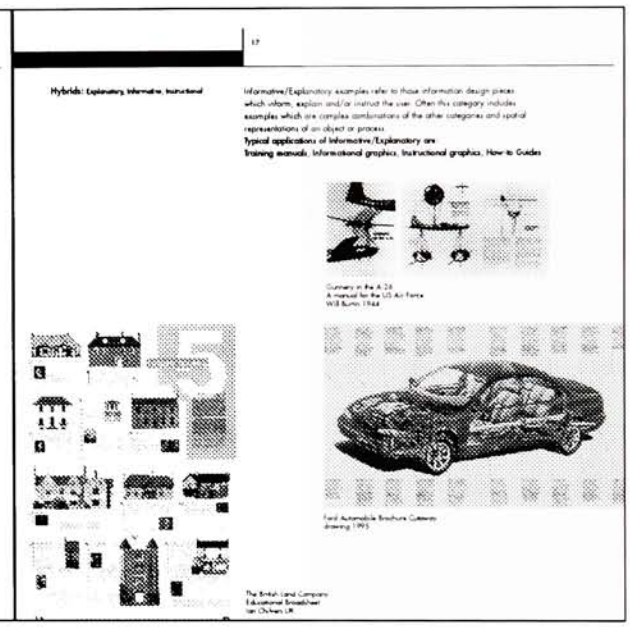


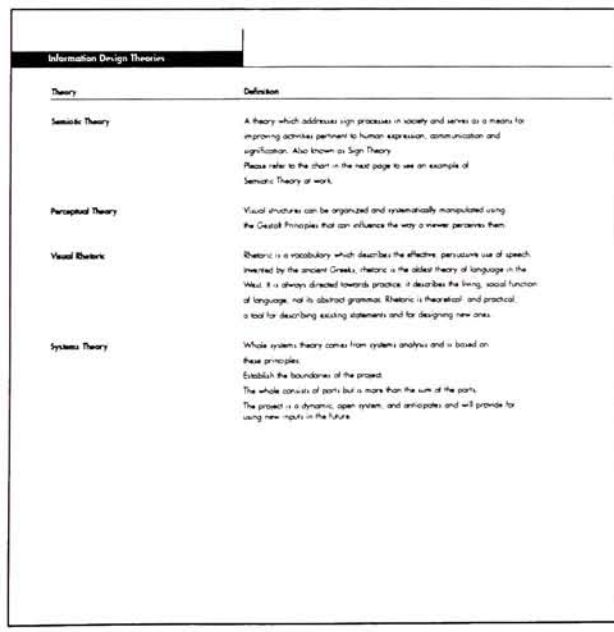

13
Diagrammatic
Diagrammatic forms of information design are those which record and compile reasonably accurate figures over a period of time. Generally structured on an X and Y axis.
Typical applications of diagrammatic Information Design are:
Graph, Table, Bar Chart, Pie Chart, Time Line
Semaphore alphabet
Mobil Graphics organization chart 1971
The UK textile industry 1968-70
David Lock

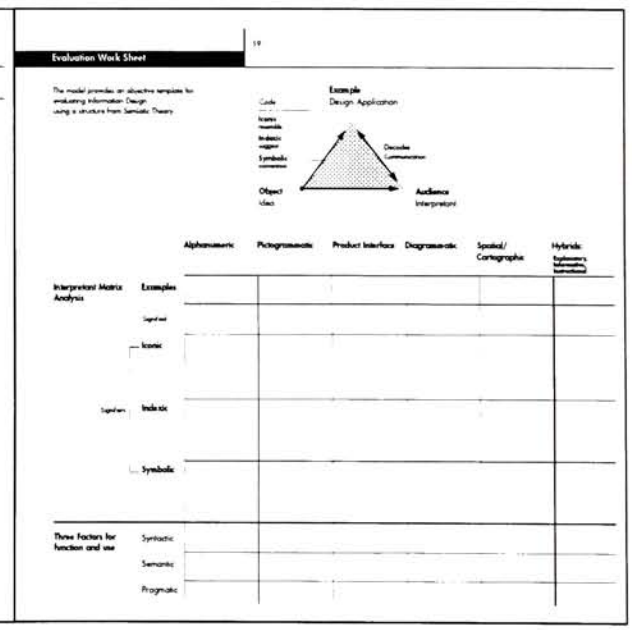



15
Spatial/Cartographic
The Spatial and Cartographic category refers to map and graphic networks for geographical uses.
Typical applications of Spatial/Cartographic are:
Maps, Navigational Aids, Networks
Telephone area code numbers
Trimel Pilot, a computer guidance program for the dashboard of car
Baltimore Map
Julie Mandible 1993




17
Hybrids: Explanatory, Informative, Instructional
Informative/Explanatory examples refer to those information design pieces which inform, explain and/or instruct the user. Often this category includes examples which are complex combinations of the other categories and spatial representations of an object or process.
Typical applications of Informative/Explanatory are
Training manuals, Informational graphics, Instructional graphics, How to Guides
Gunnery in the A-26
A manual for the US Air Force
Will Burtin 1944
Ford Automobile Brochure Cutaway
drawing 1965
The British Land Company
Educational Broadsheet
Ian Chilvers UK


Information Design Theories
Theory
Definition
Semiotic Theory
A theory which addresses sign processes in society and serves as a means for improving activities pertinent to human expression, communication and signification. Also known as Sign Theory.
Please refer to the chart in the next page to see an example of Semiotic Theory at work.
Perceptual Theory
Visual structures can be organized and systematically manipulated using the Gestalt Principles that can influence the way a viewer perceives them.
Visual Rhetoric
Rhetoric is a vocabulary which describes the effective, persuasive use of speech. Invented by the ancient Greeks, rhetoric is the oldest theory of language in the West. It is always directed towards practice. It describes the living, social function of language, not its abstract grammar. Rhetoric is theoretical and practical, a tool for describing existing statements and for designing new ones.
Systems Theory
Whole systems theory comes from systems analysis and is based on these principles.
Establish the boundaries of the project.
The whole consists of parts but is more than the sum of the parts.
The project is a dynamic, open system, and anticipates and will provide for using new inputs in the future.


19
Evaluation Work Sheet
The model provides an objective template for evaluating Information Design using a structure from Semiotic Theory.
Example
Design Application
Code
Decodes
Communicates
Object
Idea
Audience
Interpretant
Alphanumeric
Pictogrammatic
Product Interface
Diagrammatic
Spatial/ Cartographic
Hybrids
Interpretant Matrix Analysis
Examples
Signifier
Iconic
Signifiers
Indexic
Symbolic
Three Factors for function and use
Syntactic
Semantic
Pragmatic

Biographies

Pioneers of Information Design

Otl Aicher
(1922-1991) Aicher was a German graphic designer and typographer who led the visual design group for the 1972 Olympic Games, Munich. He studied at the Akademie der Bildenden Künste, Munich, before establishing a graphic design practice in Ulm in 1948.

Herbert Bayer
(1900-1985) Bayer was born in Hagg, Austria, and studied architecture in Linz Darmstadt the following year before studying wall-painting under Wassily Kandinsky at the Bauhaus(1921-23). After a period painting, which include a trip to Italy, he return to the Bauhaus to be Master of the print workshop in 1925, teaching visual communication and typography. As a Bauhaus student he had already developed an interest in typography, conceiving the idea of a new alphabet that would simplify the representation of sounds.

Lester Beall
(1903-1969) Beall was a contributor to the modern movement in American Graphic Design before the influx of European immigrant designers in the late 1930's. During the 1950s and 60s was responsible for numerous major Corporate Identity programs. Selftaught as a designer, Beall received a degree in art history from the University of Chicago in 1926. A major figure in American design, Beall was the first American graphic designer to be honored with a solo exhibition at the Museum of Modern Art, New York in 1937.

Henry C. Beck
(1903-1974) Beck designed the London underground diagrammatic map. It was innovative in limiting route lines to horizontal, vertical and 45° diagonal directions, breaking from a map format to provide a diagram and in enlarging the central section in relation to the outlying areas. He remained responsible for the diagram's development from 1933 to 1959.

Will Burtin
(1908-1972) Bauhaus-influenced graphic and exhibition designer. Burtin was trained as a typographer and designer at the Werkschule, Cologne, Germany, where he later taught. Emigrated to the US in 1938. He designed exhibition units for the Federal Pavilion at the 1939 New York World's Fair. From 1943-45 involved in the American war effort producing training manuals and exhibitions for the Office of Strategic Services and the US Army Air Corps.

George Giusti
(1908-1991) Born in Milan, Giusti spent much of his career in the US working in all aspects of graphic communication. Trained at the Royal Accademy of Fine Arts, Milan. Between 1930 and 1937 maintained a practice in Zurich, Switzerland. Emigrating to the U.S. in 1939, he established a studio in New York. He designed posters, publicity material and exhibitions for government agencies and produced many memorable cover designs for *Time*, FORTUNE and Holiday magazines.

Alvin Lustig
(1915-1955) Lustig was an American designer and educator who adopted the visual precedents of modern art to design. Trained at the Art Center School of Design, Los Angeles. Briefly studied architecture under Frank Lloyd Wright before opening a design studio and printing shop in Los Angeles and later in New York.

Otto Marie Neurath
(1882-1945) A Viennese sociologist, Neurath developed the Isotype visual information system. In 1925, with the support of the city council and several trade unions and other bodies, he founded the Gesellschafts-und Wirtschaftsmuseum (Social and Economic museum), whose aim was to explain the council's program of social reform. It was thus concerned with the presentation of information. Neurath put together a team to develop graphic methods for this purpose.

Paul Rand
(1914 –) Rand was the seminal figure in American graphic design who explored the formal vocabulary of European avant-garde art movements including Cubism, Constructivism and DeStijl and developed a unique, distinctly American graphic language. Educated in New York at the Pratt Institute, Parsons School of Design and the Art Students League. He was art director of *Esquire* and *Apparel Art* magazines between 1935-41.

Anton Stankowski
(1906 –) Stankowski is a German painter and graphic designer. His practice as a painter, particularly his explorations of color and form, informs his solutions as a designer. He chaired the committee responsible for the visual design of the 1972 Munich Olympic Games.

Ladislav Sutnar
(1897-1976) A Czech-born graphic and exhibition designer, educator and writer, Sutnar was an important design innovator in both Europe and America. After training in Prague, he taught at the State School of Graphic Arts, Prague 1923-36, becoming director in 1929. In New York, he worked for Sweet's Catalogs and other clients.

Massimo Vignelli
(1931 –) A graphic, exhibition and product designer Vignelli trained as an architect in Milan 1950-53, and Venice 1953-57. In 1965 where he created the corporate identity for Knoll International, the furniture manufacturers. He was responsible for the signage and maps for the New York subway, 1966, and the Washington Metro, 1968.

Richard Saul Wurman
(1936 –) Trained in architecture at the University of Pennsylvania, Wurman earned his graduate degree in 1959. For 30 years he has confronted unreasonably disorganized information. His books, articles and conferences have been targeted at doing something about it.

Contemporary Information Designers

Robert Abel

Lauralee Alben/Jim Faris

Jacques Bertin
Bertin holds an appointment at the prestigious Ecole des Hautes Etudes en Sciences Sociales, where he is director of the Laboratoire de Graphique. He is an internationally recognized authority on the analytic study of graphics, among his recent publications is Graphics and Graphic Information-Processing.

Deborah Beardslee

Peter Bradford
Bradford is a designer of information, instruction, and identification materials. Since founding his firm(Cement Boat Company) in 1964, he has created many communication program strategies and products for corporation, institutions, and publishers in America and abroad. Recently, he has designed computer strategies and new knowledge representations for printed and electronic encyclopedias and dictionaries.

Matthew Carter

Ken Carbone/Leslie Smolan
Carbone Smolan in New York City show way-finding signage systems designed for the Louvre in Paris and the World Bank headquarters building in Washington D.C. Their design program for Putnam Investments, based on an assessment of its marketing practices and needs, resulted in a recognization of the company itself and the manner in which it sold its products.

Cook and Shanosky

Muriel R. Cooper/David Small
(1925-1994) An active and progressive designer, educator, and researcher. Cooper founded the Visible Language Workshop with Ron MacNeil in 1975. She coordinated its overall plan to investigate the intersection of visual communication, design research, and artificial intelligence. Her own research concerns were the qualitative graphic filtering of information in a dynamic, interactive, and expressive multimedia environment.

Richard Curtis
Curtis is a graduate of the School of Design at North carolina State University and member of the board of directors of that school's foundation. He traces the evolution of the USA *TODAY* Weather page and its format architecture over a period of 13years. As the newspaper's current managing editor of graphics and photography, he directed the development of the page, along with its popular diagramming techniques.

Donovan and Green
Donovan and Green in New York City explain the firm's process of documenting and displaying data in the Reagan presidential Library, the documenting of a company in two interactive programs for 3M, and the documenting of pharmaceutical research for F. Hoffmann-LaRoche. After earning degrees in Political Science and Environmental Design, Nancye co-founded her firm in 1974. Michael earned degrees in environmental design and taught the subject for many years. He has created and directed many corporate identity programs.

Hugh Dubberly

Nathan Felde

Adrian Frutiger

John Grieverade
He has designed diagrammatic illustrations since receiving his degree from the Canterbury College of Art in the United Kingdom. After illustrating for *The Sunday Times*, and serving as Head of Graphics for *The Times* in London, he was appointed the Graphic Art Director for *Condé Nast Traveler* in New York City where his clear, diagramming has become a popular trademark of the magazine.

April Greiman
(1948 –) American graphic designer whose highly innovative work reflects a witty synthesis of Swiss Style graphic design, the color and culture of California and the multi-layered effects made possible by technology. Trained at Kansas City Art Institute.Postgraduate studies with Wolfgang Weingart and Armin Hofmann at the Kunstgewerbeschule, Basle.

Maria Guadica/Lynne Stiles
Maria is a well-known calligrapher and information designer. Lynne studied architecture at the University of North Carolina. The two met at the Understanding Business in San Francisco where they both managed editions of *US Adds* and helped developed the Pacific Bell Smart Yellow Pages. They founded YO in 1991.

Nigel Holmes
After graduating from the Royal College of Art, Holmes worked in London until 1978, when he moved to New York city to design information graphics for *Time* magazine. Since then he has designed maps, charts, and diagrams for most major publications.

Joel Katz
He has taught at yale, Rhode Island School of Design, and the Philadelphia College of Art he writes and lectures widely on his special interest and expertise in the visualization of complex cartographic, process, financial, and statistical information. His articles have appeared in Messages, the AIGA Journal of Graphics, and Visible Language.

Krzysztof Lenk/Paul Kahn
Lenk studied graphic design at Poland's Academy of Fine Arts and earned his MFA degree in 1961. He practiced and taught in Europe until 1982 when he was appointed professor of graphic design at the Rhode Island School of Design. He is a partner and design director at Dynamic Diagrams. He is a partner and design director at Dynamic Diagrams, a consulting company concentrating on interface design for both print and electronic media.
Kahn has trained in literature and typography, and has worked with many electronic publishing systems since 1977. At Brown University's IRIS, he served as project manager and director to develop educational hypertext applications.

David Macaulay
David is the author and illustrator of many internationally acclaimed and bestselling books about architecture. He was 11 when his family moved from England to the United States. His fascination with simple technology and the way things worked, together with his love of model-making and drawing, led him to study architecture at Rhode Island School of Design. He is best known for *The Way Things Work*(1988), a book about the hows and whys of almost everything that functions.

Aaron Marcus
He is the principal and founder of Aaron Marcus and Associates, Emeryville, California. He received his BFA and MFA from Yale University, and his BA from Princeton University.

Dave Merrill
After earning degrees in Government and Art from the University of Virginia, he began drawing political cartoons for the *Washington Business Review*. Later, as a designer and infographic specialist at *US News and World Report*, he pioneered the implementing of computer systems to produce four-color desktop illustrations for newsmagazine stories.

Bruce Ian Meader

Clement Mok
Mok of CMd(Clement Mok designs, Inc.) in San Francisco explains his use of interactive multimedia to advance and manage different kinds of information, including the design of products. He spent five years as the Creative Director at Apple Computer, where he was involved in projects including the launch of the Macintosh and HyperCard.

Don Moyer
Moyer is a graphic designer and writer who enjoys working on thorny communication problems. While a student at the Philadelphia College of Art, Moyer first met Richard Saul Wurman and intrigued by his enthusiasm for making information clear. After graduation, he worked in Wurman's office. AMS(Agnew Moyer Smith) now concentrates on projects in publishing, corporate identity, packaging, interface design, and exhibits for clients in this country and abroad.

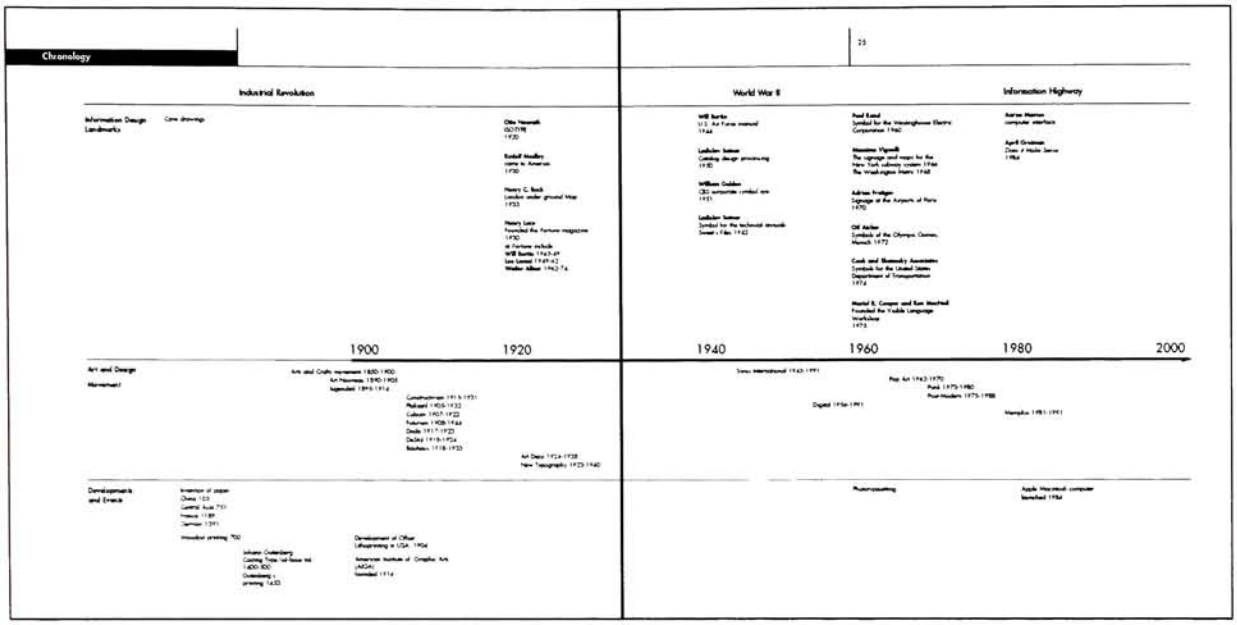
Ted Nelson

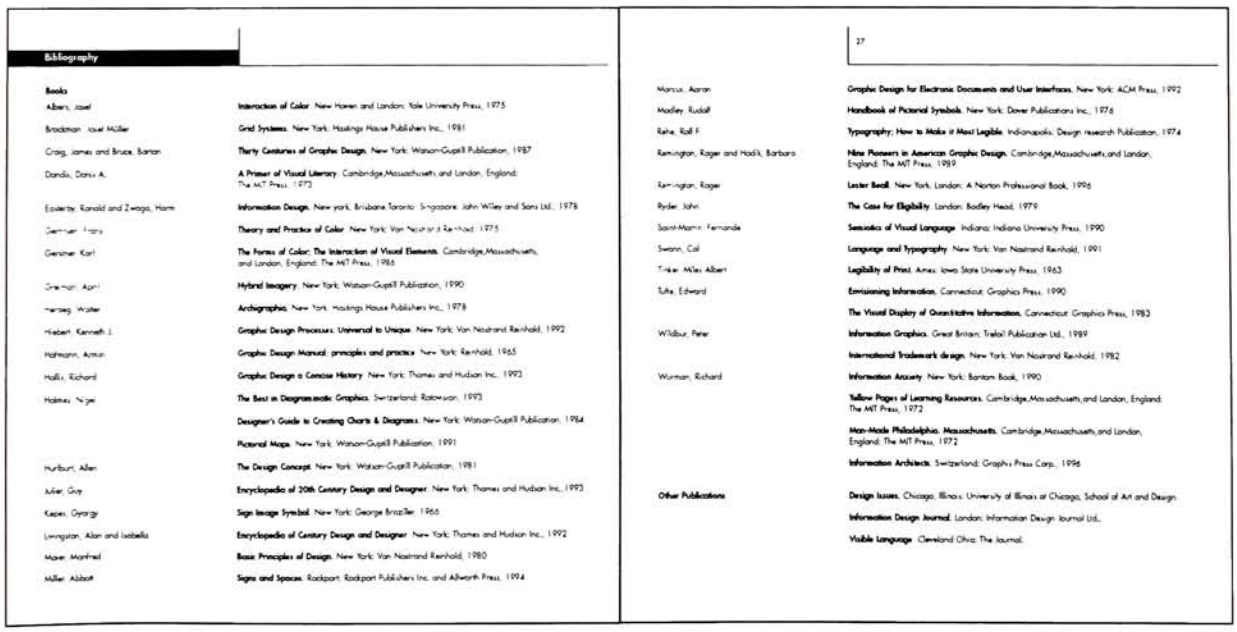
Bruce Robertson
Robertson trained at the Sunderland Art College where he obtained an Honor's Degree in Drawing, and later at the Royal College of Art. In 1967, he co-founded his studio Diagram Visual Information to produce a large body of diagrammatic publications and visual displays of information for the international publishing market.

Nathan Shedroff

Erik Spiekermann
Spiekermann of MetaDesign in Berlin explains his designing of one of information's essential building blocks, a clear and flexible typeface. Also, as the designer of the new diagram for Berlin's transportation system, he traces the evolution of the system from the 1960's. He has written many articles about type and , with his considerable reputation as an international authority on typeface design. He claims that designing complex information systems is his hobby.

Alexander Tsiaras


Chronology
25
Industrial Revolution
World War II
Information Highway
Information Design Landmarks
Cave drawings
Otto Neurath ISOTYPE 1930
Rudolf Modley opens in America 1930
Henry C. Beck London under ground Map 1933
Henry Luce Founded the Fortune magazine 1930
at Fortune include Will Burtin 1943-49 Leo Lionni 1949-62 Walter Allner 1962-74
Will Burtin U.S. Air Force manual 1944
Ladislav Sutnar Catalog design pioneering 1950
William Golden CBS corporate symbol eye 1951
Ladislav Sutnar Symbol for the technical manuals Sweet's Files 1942
Paul Rand Symbol for the Westinghouse Electric Corporation 1960
Massimo Vignelli The signage and maps for the New York subway system 1966 The wind-rose fonts 1968
Adrian Frutiger Signage at the Airports of Paris 1970
Otl Aicher Symbols of the Olympic Games, Munich 1972
Cook and Shanosky Associates Symbols for the United States Department of Transportation 1974
Muriel G. Cooper and Ken Hoshed Founded the Visible Language Workshop 1975
Aaron Marcus computer interface
April Greiman Does it Made Sense 1986
1900
1920
1940
1960
1980
2000
Art and Design
Movements
Arts and Crafts movement 1850-1900
Art Nouveau 1890-1905
Jugendstil 1895-1914
Constructivism 1915-1931
Mahonri 1906-1933
Cubism 1907-1922
Futurism 1909-1944
Dada 1917-1923
DeStijl 1918-1934
Bauhaus 1919-1933
Art Deco 1924-1938
New Typography 1925-1940
Swiss International 1943-1991
Pop Art 1963-1970
Punk 1975-1980
Post-Modern 1975-1988
Digital 1956-1991
Memphis 1981-1991
Developments and Events
Invention of paper China 105 Central Asia 751 France 1189 Germany 1391
Woodcut printing 700
Johann Gutenberg Casting Type - 1st Book ca. 1430-50 Gutenberg's printing 1450
Development of Offset Lithoprinting in USA 1904
American Institute of Graphic Arts (AIGA) founded 1914
Photocomposing
Apple Macintosh computer launched 1984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Glossary of Terms

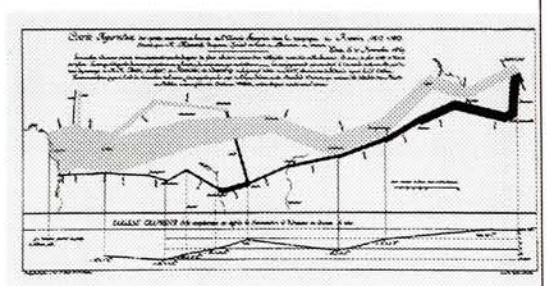
Term	Definition
Aesthetics	Aesthetics refers to the process by which visual form is created, utilizing formal visual principles which are directed for a specific purpose and/or message.
Analogue	Something using a physical variable, to represent numbers in arithmetical calculations.
Audience	Audience refers to the receivers of the graphic design image. This may be either individuals or groups to which the message is directed.
Chart, Table, Graph	Generally refer to graphics structured by x and y axis. Chart and table commonly refer to data displayed in columns and rows, the data takes the form of discrete (rather than continuous) elements, such as numbers, letters, or symbols. The term graph commonly refers to data represented by a continuous line or lines plotted across a grid.
Communication	The purpose of graphic design is to facilitate messages and meaning for a purpose.
Diagram	A spatial representation of an object or process.
Digital	A system in which information is represented in the form of changing electrical signals.
Discipline	To become an "expert" in graphic design, one must "pay his/her dues" by hard work, open mindedness, dedication, and an attitude of always looking for new information.
Elements	The parts, components or variables of form within a format.
Evaluation	The most basic purpose of all graphic design methodology is to develop the knowledge, skills and sensitivities to be able to decide yes or no, in or out in any form or problem- solving situation.
Form	The characteristics that distinguish one visual mark from another, including shape, size, color, and texture.
Format	The space in which an image lives and works. In determining formats, the designer needs to be conscious that in its most basic sense, the format is communicating a message by itself.
Function	The purpose for which all graphic design form exists. Function means "design that works" for its intended purpose and may be the difference between art and design.
Gestalt Principles	A series of perceptual laws that were identified by several German psychologists in the early 1900's. A working knowledge of these "organizational or grouping" laws allows the graphic designer to create form that takes into allowance the physiological ways that human beings perceive images.

Grid	A structural system or framework for organizing elements within a format. A grid can be conceptual(i.e. matrix) or physical (a typographic unit grid). It can be built upon typographic, compositional or constructional bases. It can be regular, irregular or progressive in rhythm.
Information Design	Information Design can be made to inform, it must be imbued with form and applied to become meaningful information and led to understanding.
Isotype	(International Systems of Typographic Pictorial Education) A system of conveying statistical information by means of repeated unit-symbols, and was used in graph form to convey comparative statistics of different elements.
Legibility	Legibility refers to the recognizability or readability of a form in relationship to its purpose and context. It may be representational, abstract or a point between but it communicates its intended message clearly.
Message	The intended communication outcome of meaning to an audience.
Module	Refers to a spatial unit in any organizational method. A module may be regular (as in the Typographic Unit Grid) or progressive (as in the proportional grid).
Perceptual	Perceptual refers to form which is based on cognitive considerations such as the Gestalt Principles. Visual structures can be consciously organized and systematically manipulated on the Gestalt laws that can influence the way audience perceive them.
Proportion	A comparative relationship based on geometric progression.
Proximity	A Gestalt principle which means that forms which are arranged near each other are perceived as a unified entity.
Readability	Readability refers to the extent that the image is legible and thereby understandable.
Rhythm	Rhythm refers to a system of frequency (or intervals) involved in form development and communication. It can be regular, irregular, progressive or combination.
Semantic	The relationship among signs and symbols and the objects they represent.
Semiotics	The study of signs and the way they work. It addresses sign processes in society and serves as a means for improving activities pertinent to human expression, communication and signification.

Term	Definition
Skeleton	This refers to a framework, grid or other organizing structure upon which the design is built. The elements of a design are "hung" on the organizing structure as flesh is "hung" on the bones of a skeleton.
Syntax	The grammar of visual communication (i.e. line, shape, etc)
System theory	System approach concerned with conceptual, color, image, spatial, typographic, and language, systems, it makes more communicable and effective information to audience.
Time line	It is another variation of the chart/ graph type, it is simply a chart or graph with a time axis.
Tonality	Tonality means an actual or implied value of lightness or darkness in the form created. Controlled tonality can be a useful visual variable in achieving unity or contrast.
Types of Information	Typography-Alphanumeric Symbols-Pictographic Interface-Product Interface Diagrams-Diagrammatic Maps-Spatial/Cartographic Explanatory Graphics-Hybrids Explanatory, Informative, Instructional
Typeface	Alphabet created for the purpose of reproduction. The individual characters of a typeface are designed to work in different combinations and to remain consistent when reproduced by printing.
Typographic Unit Grid	An organizational method by which a square unit is designated based on the text type and one unit of space. This unit breaks the format into a Type A or unit grid and is then divided into columns, margins, etc for a Type B or modular/composite grid. Type, photographs, symbols and other elements are arranged according to this Type B grid.
Variable	This refers to the identification of a set of predictable parts in a system from which the designer can select for his/her image formulation needs. (i.e. Typographic variables include size, line spacing, position, etc.)
Visibility	Visibility refers to the quality of form in an image and to its capacity to be viewed coherently and understood. Therefore does the form enhance the meaning or detract from communication?
Visual Language	The formal aesthetic communications system used in graphic design.
Visual Rhetoric	Study and application of the aesthetical, effective, and persuasive use of language (signs).

We are on the threshold of a truly technological society. Digital processing has rapidly promoted the measure of the quantity, diversity, speed of delivery of information. The diversity of this mass information environment requires clarity of information communication between creators and audience use and preserve of language of visual communication.

Steps are underway to create Information Design which can be understood by large groups of people. Well developed Information Design can obviously serve many functions. It may be considered both as a tool for thought and as a form of communication. As a form of communication, it must convey information as clearly as possible.



The Thematic Map of Charles Joseph Minard which shows the terrible fate of Napoleon's army in Russia.

Anatomy of Information Design Matrix

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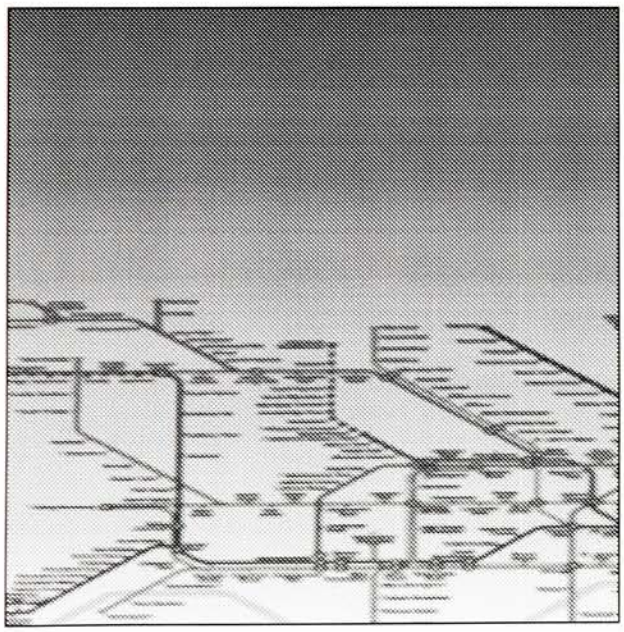
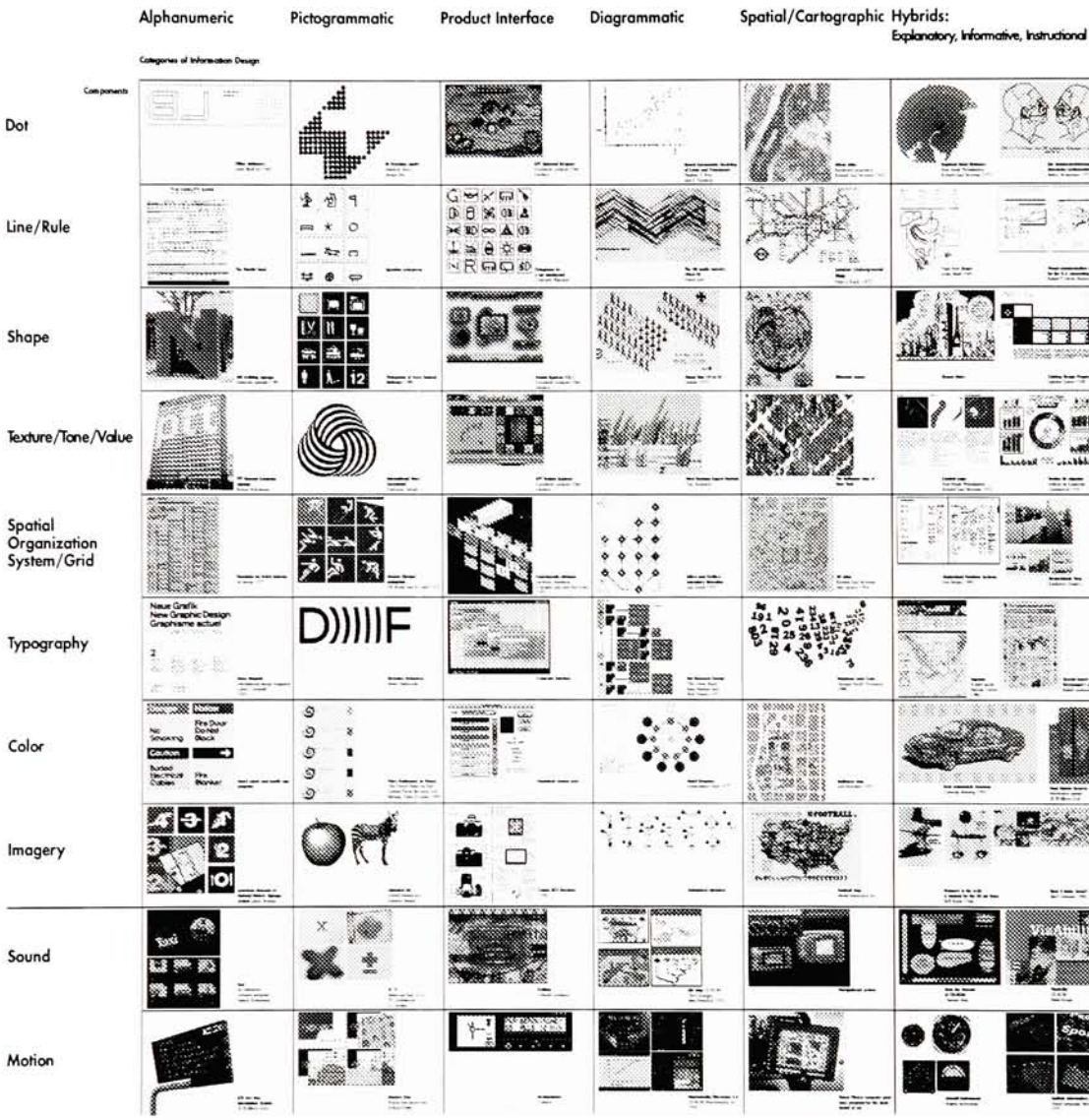
components	Alphanumeric categories	Pictogrammatic	Product Interface	Diagrammatic	Spatial/ Cartographic	Hybrids: Explanatory, Informative, Instructional	
Dot	Office stationery Lester Beall Inc 1965	Dr Gaylaine Lanetti (medical clinic) Jacque Kay	KPT Spherical Designer	Recent Econometric Modelling of Crime and Punishment Stephen S. Brier and E. Fienberg	Urban Atlas Residential population Richard Saul Wurman 1967	Regional Road Distances Man made Philadelphia Richard Saul Wurman 1972	Zur Malenamentstehung durch chronische Lichtstreuwirkung Arthur Wiskemann 1974
Line/Rule	The Fidelity Bank	Egyptian pictograms	Pictograms for a car dashboard Giancarlo Biancardi	The UK textile industry 1968-70 David Lock	London Underground map Harris C. Beck 1933	Page from Scope Lester Beall 1949	Visual communication system for the U.S. Accounting Office Robert P. Gerun Associates Inc
Shape	NN Building signage Takenobu Igarashi 1981	Pictograms of Swiss Federal Railways 1980	Frontal Explorer V.2.1	Great War 1914-18 Isotype 1933	Ethiopian region	Life in America 1940-80 Nigel Holmes Queen Mary	Catalog Design Progress Ladislav Sutnar 1950
Texture Tone/Value	PTT Telecom Company signage Bureau Mülzenaar	International Wool Secretariat Francesco Saraglia	KPT Texture Explorer	West German export	The Baltimore map of New York	Content page Man-Made Philadelphia Richard Saul Wurman 1972	Tecidos De Algodon Instituto de Espanolas Commercial 1929
Spatial Organization System/Grid	Timetable for Air France Atelier Frutiger	Munich Olympic pictogram Otl Aicher and his staff 1972	Encyclopedia Africana electronic database Kirchstein Lenk and Paul Kahn 1993	Inflow and Outflow secondary Education Lutz Sneek 1991	US Atlas Richard Saul Wurman Hans Hansen 1994	Understand Furniture Systems Dan Meyer 1990	International Paper company identity Lester Beall 1963 Deutschlands Weg Exhibition Graphic
Typography	Urban sign board New York City British Rail's Inter City Timetable	Deutsches Fernsehen Anton Stankowski	Computer Interface	Hot Greasers Bookje (The Green Book) Kane Hallman and Nick Feeney 1992	Telephone area Code Georges Pacific Promotion 1988	Sagaars A park guide Melissa Cramer 1986	Special report Newspaper's nameplate Robert Lockwood 1992
Color	Mobil safety and health sign program	Parcs Nationaux de France (The French National Park Systems) Pierre Bernard, Dirk Behrage, Pekka Drossler 1990	Macintosh system color	Mobil Graphics organization chart 1971	Baltimore Map Julie Mansfield 1993	Ford Automobile Brochure Customer drawing 1993	Gose Nature Reserve Information panels 2030&Burn Knut
Imagery	American Museum of Natural History Signage system Lance Wiseman	Alphabet Ltd Darrell Ireland and Delanen Ireland	Nikon F4 brochure 1993	Semaphore alphabet	Football Map World Impression Inc	Gunnery in the A-26 A manual for the US Air Force Will Burton 1944	Does It Make Sense? April Greiman 1986
Sound	Test an interactive software program Helene Richardson	IL 30 American Red Cross TV Commercial J.J. Jordan	Computer interface (ad-hoc)	Life map CD-ROM Chris Krueger, Amy Pertschuk 1992	Navigational system	Note the Growth of CD-ROM Clement Mok	VISAbility CD-ROM Mark Design
Motion	LCD bus stop Information System 2030&Burn Knut	Nucleus One Picture font animation Joshua Distler	Routeplanner Siemens	Apple Parts Locator System (APLS) Apple computer CD-ROM	Travel Pilot/a computer guidance program for the dashboard of car	Aircraft instruments display technology	The Micro Gallery visitor information system 1991



The Anatomy of Information Design



Using images of study guide and matrix came from reference books which listed on bibliography.

Appendix B 1 Biographies

Pioneers of Information Design

Otl Aicher

(1922-1991) Aicher was a German graphic designer and typographer who led the visual design group for the 1972 Olympic Games in Munich, Germany. He studied at the Akademie der Bildenden Künste, Munich, before establishing a graphic design practice in Ulm in 1948.

Herbert Bayer

(1900-1985) Bayer was born in Haag, Austria, and studied architecture in Linz in 1919 and in Darmstadt the following year before studying wall-painting under Wassily Kandinsky at the Bauhaus (1921-23). After a period of painting, which included a trip to Italy, he returned to the Bauhaus to be master of the print workshop in 1925, teaching visual communication and typography. As a Bauhaus student, he had already developed an interest in typography, conceiving the idea of a new alphabet that would simplify the representation of sounds. He designed the cover of the book *Bauhaus 1919-23*. As a master, Bayer established the lower-case san-serif type as the style for all Bauhaus printing, arguing that the upper case and serifs had only been derived from handwritten forms and were simply perpetuated by tradition. He was also influential in including photography in graphic design and in introducing advertising into Bauhaus teaching.

Lester Beall

(1903-1969) Beall was a contributor to the Modern Movement in American Graphic Design before the influx of European immigrant designers in the late 1930s. During the 1950s and 60s, he was responsible for numerous major corporate identity programs. Beall was a self-taught designer, although in 1926 he received a doctorate in art history from the University of Chicago. He brought an understanding of European avant-garde art movements, including Constructivism, DADA, and Surrealism, to the practice of design. Beall worked as a freelance designer in Chicago before establishing his own New York practice in 1936. Between 1937 and 1941, he produced a series of eight silkscreen posters for the Rural Electrification Administration which, with their strong flat colors and geometric simplicity, remain potent and enduring images. He was an early innovator in the development of the design manual as a method of controlling the disparate elements of a corporate identity scheme. A major figure in American design, he became in 1937 the first American graphic designer to be honored with a solo exhibition at the Museum of Modern Art, New York.

Henry C. Beck

(1903-1974) Beck designed the London underground diagrammatic map. It was innovative in limiting rout lines to horizontal, vertical and 45° diagonal directions, in breaking from a map format to provide a diagram and in enlarging the central section in relation to the outlying areas. He remained responsible for the diagram's development from 1933 to 1959.

Will Burtin

(1908-1972) Bauhaus-influenced graphic and exhibition designer, Burtin was trained as a typographer and designer at the Werkschule, in Cologne, Germany, where he later taught. He emigrated to the US in 1938 and designed exhibition units for the Federal Pavilion at the 1939 New York World's Fair. From 1943-45 he was involved in the American war effort producing training manuals and exhibitions for the Office of Strategic Services and the US Army Air Corps.

George Giusti

(1908-1991) Born in Milan, Giusti spent much of his career in the US working in all aspects of graphic communication. He was trained at the Royal Academy of Fine Arts, Milan, and between 1930 and 1937 maintained a practice in Zurich, Switzerland. He emigrated to the US where in 1939 he established a studio in New York. Giusti designed posters, publicity material and exhibitions for government agencies. Giusti's simplified, symbolic imagery was successfully utilized during twelve years as design consultant for Geigy Pharmaceuticals. He produced many memorable cover designs for the magazines *Time, Fortune* and *Holiday*. In 1958 Giusti was elected Art Director of the Year and in 1979 inducted into the *Art Directors Club of New York Hall of Fame*. He was also a member of Alliance Graphique Internationale (AGI).

Alvin Lustig

(1915-1955) Lustig was an American graphic and interior designer and educator who adapted the visual precedents of modern art to design. He was trained at the Art Center School of Design in Los Angeles, where he later taught Louis Danziger. He briefly studied architecture under Frank Lloyd Wright (1935) before opening a design studio and printing shop in Los Angeles (1936-40). During 1945 and 1946 he worked as visual design director of *Look* magazine in New York. Amongst his most distinguished works were book jackets for *New Directions, New York, and Noonday* Press and editorial designs for the magazines *Art Digest* and *Industrial Design*. His design approach utilized abstract shapes and symbols to express the essence of a product whether it be a book, record sleeve or corporate identity program. Lustig was a major contributor to the graphic design program established at Yale University in New Haven, Connecticut, in 1951. The Museum of Modern Art, New York, staged an exhibition of his work in 1953. His career was tragically cut short by progressive illness and his premature death at the age of forty.

Otto and Marie Neurath

(1882-1945) Neurath was the Viennese sociologist who developed the Isotype visual information system. In 1925, with the support of the city council and several trade unions and other bodies, he founded the Gesellschafts-und Wirtschaftsmuseum (Social and Economic Museum), whose aim was to explain the council's program of social reform. The Isotype visual information system was concerned with the presentation of information, and Otto Neurath put together a team (including his future wife, Marie Reidemeister) to develop graphic methods for this purpose. The system displayed statistics in pictorial form; thus quantified information on education, health provision and especially the large-scale Viennese housing program was translated into a series of repeated images or unit-symbols. This system acquired the title 'Wiener Methode der Bildstatistik' (Vienna method of pictorial statistics).

Paul Rand

(1914-1996) Rand was the seminal figure in American graphic design who explored the formal vocabulary of European avant-garde art movements including Cubism, Constructivism and DeStijl and developed a unique, distinctly American graphic language. Educated in New York at the Pratt Institute, Parsons School of Design and the Art Students League, he was art director of *Esquire* and *Apparel Art* magazines (1935-41).

Anton Stankowski

(1906-) Stankowski studied painting under Max Burchartz in Essen (1927-29). He then moved to Zurich, where he stayed until 1937, establishing himself as a leader in experimental photography and constructive art. In 1948 he moved to Stuttgart, where he worked as a graphic designer. His research in photography and painting was transferred to typographic and graphic design, in which he became adept at creating pictograms, often influenced by Constructivism.

Ladislav Sutnar

(1897-1976) Sutnar was a Czech-born graphic and exhibition designer, educator, writer, and an important design innovator in both Europe and America. After training in Prague, he taught at the State School of Graphic Arts, Prague (1923-36), becoming director in 1929. He joined the publishing house of Druzstevní Práce as design director (1929-39). An early interest in painting and stage design developed into the design of exhibitions during the 1930s. Sutnar travelled to America in 1939 as exhibition designer for the Czech Pavilion at the New York World's Fair; with the political crisis in Europe deepening, he decided to remain. A two-decade association with *Sweet's* Catalog Service resulted in the design of *Sweet's Files,* annual catalogues of architectural and industrial products conveying complex technical information. He structured this information in a rational, systematic manner using the grid, sans-serif types, color, contrast and lines to produce functional design solutions which allowed an accessible flow of information. His methods foreshadowed developments in 'information graphics' during the 1970s. He also produced early corporate identity programs, as in his work for Addox Business Machines. An important commentator on design, his books include *Package Design: The Force of Visual Selling* (1953), and *Visual Design in Action: Principles, Purposes* (1961).

Massimo Vignelli

(1931-) A graphic, exhibition and product designer, Vignelli trained as an architect in Milan (1950-53) and Venice (1953-57). In 1965 he created the corporate identity for Knoll International, the furniture manufacturer. He was responsible for the signage and maps for the New York Subway (1966) and the Washington Metro (1968).

Richard Saul Wurman

(1936-) Wurman was trained in architecture at the University of Pennsylvania, and he earned his graduate degree in 1959. During the next 13 years of partnership practice in Philadelphia, he began producing a series of architecturally oriented books on building comparisons, city analysis, and Louis Kahn. He spent 30 years in confrontations with unreasonably disorganized information and produced a series of publications as a result of these confrontations. He explains his application of simple logic to the comparing of cities, buildings and urban statistics, and the mapping of content in disparate subjects like careers, city environments, surgical processes, telephone books, atlases, and corporate chronologies.

Contemporary Information Designers

Jacques Bertin

Bertin holds an appointment at the prestigious Ecole des Hautes Etudes en Sciences Sociales in France, where he is director of the Laboratoire de Graphique. He is an internationally recognized authority on the analytic study of graphics; among his recent publications are *Graphics and Graphic Information-Processing.*

Peter Bradford

Bradford is a designer of information, instruction, and identification materials. Since founding his firm, Cement Boat Company, in 1964, he has created many communication program strategies and products for corporations, institutions, and publishers in America and abroad. Recently, he has designed computer strategies and new knowledge representations for printed and electronic encyclopedias and dictionaries.

Ken Carbone/Leslie Smolan Carbone and Smolan work from their firm, Carbone Smolan, in New York City. They designed the way-finding signage systems for the Louvre in Paris and the World Bank headquarters building in Washington, D.C. Their design program for Putnam Investments, based on an assessment of its marketing practices and needs, resulted in wider audience recognition of the company and the manner in which it sold its products.

Muriel Cooper/ David Small (1925-1994) Cooper was an active and progressive designer, educator, and researcher. She founded the Visible Language Workshop with Ron MacNeil in 1975 and coordinated its overall plan to investigate the intersection of visual communication, design research, and artificial intelligence. Her own research concerns were the qualitative graphic filtering of information in a dynamic, interactive, and expressive multimedia environment. Small received his Bachelor's degree from MIT's Cognitive Science department in 1987 and his Master's degree from the Media Laboratory in 1990, while he was Cooper's student. He creates and teaches information design for high-resolution displays, develops research software, and has published a watercolor simulation written on the Media Lab's Connection Machine II.

Richard Curtis Curtis is a graduate of the School of Design at North Carolina State University and a member of the board of directors of the university's foundation. He traces the evolution of the *USA TODAY* Weather page and its format architecture over a period of 13 years. As the newspaper's current managing editor of graphics and photography, he directs the development of the page, along with its popular diagramming techniques.

Michael Donovan/ Nancye Green Donovan and Green established their firm, Donovan and Green, in New York City in 1974. They designed the process of documenting and displaying data in the Reagan Presidential Library, the documenting of two interactive programs for 3M, and the documenting of pharmaceutical research for F. Hoffmann-LaRoche. Green earned degrees in political science and environmental design. Donovan earned degrees in environmental design and taught the subject for many years. He has created and directed many corporate identity programs.

Adrian Frutiger (1928-) Frutiger is a Swiss typographer and typeface designer. He trained at the Kunstgewerbeschule, Zurich (1948-52). He moved to Paris in 1952 following an invitation from Charles Peignot, of the typefounders Deberny & Peignot. He quickly established his credentials as a type designer with his first major typeface, Méridien (1955). His international reputation was established with Univers, a sans-serif typeface. He has been a consultant to IBM, the Stempel typefoundry, and the airports of Paris, producing lettering for the signage at Charles de Gaulle airport during the early 1970s.

John Grimwade Grimwade has designed diagrammatic illustrations since receiving his degree from the Canterbury College of Art in the United Kingdom. After illustrating for *The Sunday Times*, and serving as Head of Graphics for *The Times in London*, he was appointed the Graphic Art Director for *Condé Nast Traveler* in New York City where his clear diagramming has become a popular trademark of the magazine.

April Greiman (1948-) Greiman is an American graphic designer whose highly innovative work reflects a witty synthesis of Swiss Style graphic design, the color and culture of California, and the multi-layered effects made possible by technology. She was trained at Kansas City Art Institute and undertook postgraduate studies with Wolfgang Weingart and Armin Hofmann at the Kunstgewerbeschule, Basle.

Maria Giudice/Lynne Stiles Giudice is a well-known calligrapher and information designer. Stiles studied architecture at the University of North Carolina. The two met at the design firm, Understanding Business, in San Francisco where they both managed editions of *US Atlas* and helped to develop the *Pacific Bell Smart Yellow Pages*. They founded their own firm, YO, in 1991.

Nigel Holmes After graduating from the Royal College of Art, Holmes worked in London until 1978, when he moved to New York City to design information graphics for *Time* magazine. Since then, he has designed maps, charts, and diagrams for most major publications.

Joel Katz Katz has taught at Yale, Rhode Island School of Design, and the Philadelphia College of Art. He writes and lectures widely on his special interest and expertise in the visualization of complex cartographic, process, financial, and statistical information. His articles have appeared in *Messages*, the *AIGA Journal of Graphics*, and *Visible Language*.

Krzysztof Lenk/Paul Kahn Lenk studied graphic design at Poland's Academy of Fine Arts and earned his MFA degree in 1961. He practiced and taught in Europe until 1982 when he was appointed professor of graphic design at the Rhode Island School of Design. He is a partner and design director at Dynamic Diagrams, a consulting company concentrating on interface design for both print and electronic media. Kahn has trained in literature and typography, and has worked with many electronic publishing systems since 1977. At Brown University's IRIS, he served as project manager and director to develop educational hypertext applications.

David Macaulay Macaulay is the author and illustrator of many internationally acclaimed, bestselling books about architecture. He was 11 when his family moved from England to the United States. His fascination with simple technology and the way things work, together with his love of model-making and drawing, led him to study architecture at the Rhode Island School of Design. He is best known for *The Way Things Work* (1988), a dictionary-style book illustrating the functional 'hows and whys' of common items.

Aaron Marcus Marcus is the principal and founder of the design firm Aaron Marcus and Associates, in Emeryville, California. He received his BFA and MFA from Yale University, and his BA from Princeton University.

Dave Merrill After earning degrees in Government and Art from the University of Virginia, Merrill began drawing political cartoons for the *Washington Business Review*. Later, as a designer and infographic specialist at *US News and World Report*, he pioneered the implementation of computer systems to produce four-color desktop illustrations for newsmagazine stories.

Clement Mok Mok, of CMd (Clement Mok designs, Inc.) in San Francisco, explains his use of interactive multimedia to advance and manage different kinds of information, including the design of products. He spent five years as the Creative Director at Apple Computer, where he was involved in projects including the launch of the Macintosh and HyperCard.

Don Moyer

Moyer is a graphic designer and writer. While a student at the Philadelphia College of Art, Moyer first met Richard Saul Wurman and was intrigued by his enthusiasm for making information clear. After graduation, he worked in Wurman's office. AMS (Agnew Moyer Smith) now concentrates on projects in publishing, corporate identity, packaging, interface design, and exhibits for clients in this country and abroad.

Bruce Robertson

Robertson trained at the Sunderland Art College, where he obtained an Honors Degree in Drawing, and later at the Royal College of Art. In 1967, he co-founded his studio, Diagram Visual Information, to produce a large body of diagrammatic publications and visual displays of information for the international publishing market.

Nathan Shedroff

Shedroff has been an information and interface designer for over six years. He worked with Richard Saul Wurman as a senior designer at Understanding Business in San Francisco, helping to design the Pacific Bell *Smart Yellow Pages* and the book *Information Anxiety*. Since co-founding the design firm Vivid in 1990, he has supervised the development of new interaction paradigms for digital reference tools, online worlds, and productivity software.

Erik Spiekermann

Spiekermann, of MetaDesign in Berlin, designed one of information's essential building blocks, a clear and flexible typeface. Also, as the designer of the new diagram for Berlin's transportation system, he traces the evolution of the system from the 1960's. He has written many articles about type and is well known as an international authority on typeface design. Spiekermann claims that designing complex information systems is his hobby.

Alexander Tsiaras

Tsiaras studied art history and film at Amherst College. He began producing his extraordinary photographic essays for *Life* magazine in 1980. For these stories he developed and adapted endoscopic lenses to record some of the first photographs of human egg fertilization and the development of the fetus from three weeks old to just before birth. Tsiaras has created stories for many other national and international publications including *New York Times Magazine, London Times Magazine, GEO,* and *Smithsonian.*

Additional Contemporary Information Designers

Robert Abel
Lauralee Alben/Jim Faris
Matthew Carter
Hugh Dubberly
Nathan Felde
Bruce Ian Meader
Ted Nelson

These biographical materials have been derived from *Thirty Centuries of Graphic Design, Graphic Design: a Concise History, Encyclopedia of 20th Century Design and Designer, Encyclopedia of Design and Designer,* and *Information Architects.* Professor R. Roger Remington provided further information on the above pioneering and contemporary Information designers.

Appendix B 2 Glossary of Terms

Glossary of Terms

Aesthetics — The process by which visual form is created, utilizing formal visual principles which are directed for a specific purpose and/or message.

Analogue — A system using a physical variable to represent numbers in arithmetical calculations.

Audience — The receivers of the graphic design image; either individuals or groups to whom the message is directed.

Chart, Table, Graph — *Chart* and *Table* commonly refer to data displayed in columns and rows; the data takes the form of discrete (rather than continuous) elements, such as numbers, letters, or symbols. *Graph* commonly refers to data represented by a continuous line or lines plotted across a grid. Generally, graphics are structured by x and y axes.

Communication — The facilitation of messages and meaning for a purpose; the purpose of graphic design. One communication model is as follows: an informative source encoding a message, which is then transmitted along a channel to a receiver, who then decodes the message and reacts in some way.

Diagram — A spatial representation of an object or process.

Digital — A system in which information is represented in the form of changing electrical signals.

Discipline — The hard work, open-mindedness, dedication, and willingness to explore new frontiers required to become an 'expert' in graphic design.

Elements — The parts, components, or variables of form within a format.

Evaluation — The most basic purpose of all graphic design methodology; the use of one's knowledge, skills, and sensitivities to make a decision in any form or problem-solving situation.

Form — The characteristics that distinguish one visual mark from another, including shape, size, color, and texture.

Format — The space in which an image lives and works. In determining formats, the designer needs to be conscious that in its most basic sense, the format itself is communicating a message.

Function — The purpose for which all graphic design form exists; 'design that works' for its intended purpose; may be the difference between art and design.

Gestalt Principles — A series of perceptual laws that were identified by several German psychologists in the early 1900's. A working knowledge of these "organizational or grouping" laws allows the graphic designer to create form that takes into allowance the physiological ways that human beings perceive images.

Grid — A structural system or framework for organizing elements within a format; can be conceptual (a matrix) or physical (a typographic unit grid); can be built upon a typographic, compositional, or constructional basis; can be regular, irregular, or progressive in rhythm.

Information Design

"Information Design is a synthesis of function, flow, and form. Function is defined as utilitarian need with a definite purpose: to make information easy to find, read, comprehend, and recall. Flow refers to the logical sequence of information. Form means dynamic information patterns and clear rational organization."
Ladislav Sutnar (1897-1976)

Types of Information Design

Typography – Alphanumeric
Interface – Product Interface
Maps – Spatial/Cartographic
Symbols – Pictographic
Diagrams – Diagrammatic
Explanatory Graphics – Hybrids: Explanatory, Informative, Instructional

Isotype

(International Systems of Typographic Pictorial Education) A system of conveying statistical information by means of repeated unit-symbols, often used in graph form to convey comparative statistics of different elements.

Legibility

The recognizability or readability of a form in relationship to its purpose and context; may be representational, abstract, or a point between; allows a massage to be communicated clearly.

Message

The intended communication outcome of meaning to an audience.

Module

A spatial unit in any organizational method; may be regular, as in the typographic unit grid, or progressive, as in the proportional grid.

Perceptual Theory

The approach based on cognitive considerations such as the Gestalt Principles. Visual structures can be consciously organized and systematically manipulated by the Gestalt laws that can influence the way an audience perceives those structures.

Proportion

A comparative relationship based on geometric progression.

Proximity

A Gestalt principle which means that forms which are arranged near each other are perceived as a unified entity.

Readability

The extent to which an image is legible and thereby understandable.

Rhythm

A system of frequency (or intervals) involved in form development and communication; can be regular, irregular, progressive, or a combination.

Semantics

The relationship among signs and symbols and the objects they represent.

Semiotics

The study of signs and the way they work.

Skeleton

A framework, grid, or other organizing structure upon which a design is built. The elements of a design are 'hung' on the organizing structure as flesh is 'hung' on the bones of a skeleton.

Syntax

The grammar of visual communication (i.e. line, shape, etc.).

Systems Theory

The systems approach is concerned with conceptual, color, image, spatial, typographic, and language systems and the ways in which these systems make information communicable and effective to audiences.

Time Line Another variation of the chart/graph type; simply, a chart or graph with a time axis; can be used to study the past, record the present, or plan the future.

Tonality An actual or implied value of lightness or darkness in the form created. Controlled tonality can be a useful visual variable in achieving unity, contrast, movement, and progress.

Typeface The alphabet created for the purpose of reproduction. The individual characters of a typeface are designed to work in different combinations and to remain consistent when reproduced by printing.

Typographic Unit Grid An organizational method by which a square unit is designated based on the text type and one unit of space. This unit breaks the format into a type A or unit grid and is then divided into columns, margins, etc. for a type B or modular/composite grid. Type, photographs, symbols, and other elements are arranged according to this type B grid.

Variables The set of different design approach possibilities. According to design formation needs, the designer selects specifications of these variables (i.e., typographic variables include size, line spacing, position, etc.).

Visibility The quality of form in an image and its capacity to be viewed coherently and understood.

Visual Language The formal aesthetic communications system used in graphic design.

Visual Rhetoric A vocabulary which describes the effective, persuasive use of speech. Invented by the ancient Greeks, rhetoric is the oldest theory of language in the West. It is always directed towards practice; it describes the living, social function of language, not its abstract grammar. Rhetoric is theoretical and practical, a tool for describing existing statements and for designing new ones. Rhetoric is not a set of fixed stylistic rules, but an open description of the patterns and processes of communication.

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Clement Mok	http://www.cmdesigns.com
Nathan Shedroff	http://www.vivid.com
Richard Saul Wurman	http://www.ted.com
ZIP2	http://www.zip2.com

Appendix C 1 Course Syllabus

Management Plan for Distance Learning Course
20th Century Information Design/
R. Roger Remington

The Course Syllabus for *20th Century Information Design* was developed and written by Professor R. Roger Remington. It includes factual information about the course as well as a Course Description, Course Objectives, Course Relevance and Rationale, Information Design Definitions, Course Bibliography, Course Communication Methods, Course Mechanics, and Course Project Work and Assignments.

20th Century Information Design

Course Number: 3001-300-90

1. Course Communications Data

Name: Professor R. Roger Remington
Office: Booth (07A) Room 3404
Email: rrrfad@rit.edu
rrrfad (RIT/VMS)
Office Phone: (716) 475-2658
Fax: (716) 475-6447

Phone Conference: (see the attached calendar by week) If out of town, call the Office of DistanceLearning at (716) 475-5089 for the 800 number.

Notes Conference:_____

2. Course Description

This course will give students an opportunity to learn about the history of information design in this century. An interdisciplinary course, it is intended for anyone who is interested in and aspires to process, design, present and implement message-making through words/ text, charts, symbols, maps, pages, signs and computer screens/interfaces.Course content includes definition and anatomy of information design, theories that inform information design, and a review of examples of pioneering and contemporary information designers. An in-depth case study will focus upon one information design pioneer, utilizing resources from RIT's Archives.

3. Course Objectives:

When the learner has successfully completed the course, they will be able to:

-**recognize** what information design is, how it is categorized, its component parts, theories that inform it, and means of evaluating it.

-**understand** key creators and seminal projects of information design from the past and present in the context of their historical time and place.

-**identify** through a study of his life and work, the importance of Will Burtin as a major pioneer of information design.

-**compare** works of information design and analyze their similarities and differences.

-**apply** the content provided in this course to their needs as creators of information design.

-**evaluate** examples of information design as to their effectiveness or ineffectiveness.

4. Course relevance and rationale

The Center for Digital Media, as the unit of RIT which is offering the course, is a natural place for reaching an interdisciplinary audience, both at RIT and for distance learners in other venues. The interdisciplinary nature of the perspective of the course emulates the collaborative model so evident now in the professional workplace. RIT has other unique resources in its creative and technical faculty, in its capacity to develop and deliver quality distance learning programs, and in its archival collections of original source materials designed by many of the individuals featured in the course.

DesignArchiveOnline, a digital online resource program, will be available to students in the course as a means of accessing images and data necessary for research on course assignments. A new module for DesignArchiveOnline is being developed on 20th Century Information Design which will highlight the following designers represented in the RIT Special Collections: Will Burtin, Lester Beall, George Giusti, Alvin Lustig and Ladislav Sutnar.

The following points provide a rationale for the importance of this new course:

-Many RIT programs deal with the information, communication and media. This course will provide an historical context for these programs.

-The presentation of case studies will bring relevance to this history and theory.

-Information design is work that by its nature demands interdisciplinary expertise. This course will enhance the collaborativegoal of the Center for Digital Media.

-Most basically, information from a course such as this is important knowledge for the educated professional in any discipline.

5. What is Information Design?

"The new information age will require many information designers. They will have to be capable of taking information users into account as part of their professional activity. This will require a redefinition of their job, an acknowledgement of their own limitations and an informed and sensitive awareness of the needs of information users. The last of these can only be achieved by forming better theories about users, developing methods of design research which are not dependent on outside expertise and ***acquiring an informed sense of the history of information design****, combining all these to create new conventions to meet new communication needs and technologies."*

David Sless

"It is an area of design that is concerned with understanding reader and user responses to written and visually-presented information. The kinds of problems germane to information design include legal documents, business forms, diagrams, guidebooks, transportation maps, charts, tables, instructional materials, wayfinding systems and digital information systems."

Bruce Meader

"Information design is a synthesis of function, flow and form. Function is defined as utilitarian need with a definite purpose: to make information easy to find, read, comprehend, and recall. Flow refers to the logical sequence of information. Form means dynamic information patterns and clear rational organization"

Ladislav Sutnar (1897-1976)

Target learners

This course is necessary for any student who aspires to process, design, present and implement messages. Students in creative programs such as design, art, photography, printing, film/video as well as those in more technical majors such as information technology will find the course content useful for their needs and complimentary to the work in their major. Most learners will be on the undergraduate level. This course will not require previous experience, however optimal use of the content is enhanced with previous experience in history, history of art, history of design , history of photography and professional studio courses in visual communication (graphic design, photography, Film and Video, Media)

6. Course Bibliography
Following is a preliminary listing of important reference books on information design. A more complete bibliography will be presented in the course materials.

Bertin
The Semiology of Graphics
Easterby/Harm/Zwaga
Information Design
Herdeg
Graphis Diagrams
Monier
How to Lie with Maps
Tufte
The Visual Display of Quantative Information
Tufte
Envisioning Information
Wildbur
Information Graphics
Wurman
Information Anxiety
Wurman
Information Architects
Nadin and Zakia
Creating Effective Advertising Using Semiotics
Sutnar
Visual Design in Action
Meggs
A History of Graphic Design
Marcus
Graphic Design For Electronic Documents & User Interfaces
Mayhew
Software User Interface Design

7. Course Communications Methods
There are three primary ways by which information can be exchanged between student and instructor:
A. The first is electronic mail, which you may send to rrrfad@rit.edu (or rrrfad on RIT's Vax/VMS system). Make certain that you include the course number **3001-300-90** on all messages.
Please send me an electronic mail message sometime during the first week of the quarter. Include in the message your name, your preferred electronic mail address and anything else you want me to know about you and your situation. As electronic mail will be an important means of communications, it is imperative that I know how to reach you.

B. The second mode of communication is via First Class. A conference has been created for the class; not surprisingly, it is called _____.I will use this conference to distribute course information, to answer questions that seem to have broad implications and to engage in on-line discussions with the class as a whole. As important information will be posted here, including information on homework, exams, etc,., it behooves you to consult this conference frequently. In particular you should consult the notes and replies under_____frequently.

C. There will be a phone conference approximately every other week. Experience has shown that it is difficult to discuss technical materials over the phone, so I would suggest that conferences as a way of clarifying general questions. Complex questions are best answered via exchanges in email or preferably in the Vax/notes conference. To join in the discussion, simply dial the number given at the beginning of this handout.

8. Course Mechanics
A.. Grading
The final grade in this course is based on the following evaluative criteria:

-Project work	75%
-Final Exam	15%
-Participation	10%

B. Course Format
Course will be composed of _____classes, each running up to___ minutes in length. Within each class, material will be presented in _____ minute modules.

9. Course Project work and Assignments
A. Required Projects
Below are a series of four required projects. You must work on these projects over the course and submit papers and materials as requested by the end of the quarter.
-DataInfo
-Compare/Contrast
-DesignArchiveOnline
-Point-of-View
This is a preliminary list. Detailed project and assignment information will be provided in the course materials.

B. Optional Projects
In addition to the above projects, I will also offer a series of optional projects that you can work on for credit during the course.
-SurfInfo
-Content Organizing Project
-Field Visit Project
-Anatomy Project
-Crystal Ball Special
-Research Project
This is a preliminary list. Detailed project and assignment information will be provided in the course materials.

Information Architect
-the individual who organizes the patterns inherent in data, making the complex clear.
-a person who creates the structure or map of information which allows others to find their personal paths to knowledge.
-the emerging 21st century professional occupation addressing the needs of the age focused upon clarity, human understanding and the science of the organization of information.
Peter Bradford

Appendix C 2 Course Plan/R. Roger Remington

The Course Plan for *20th Century Information Design* gives an overview of the course units and modules, including the modules to which this thesis project are applied (Unit 2 – Fundamentals: Module Two, Anatomy of Information Design, and Module Three, Categories of Information Design).

20th Century Information Design

Unit 1 *Introduction*

Module One **Overview of Information Design**

Content: Course Overview and basis

Questions: Why is it useful to study design history?
From what pt-of-view is this course designed?
What is Information?
What is Design?
What is Information Design?
What is the role of human factors?
What are important Information Design historical references prior to 20th century?

Format:: Video lntr
Video lecture and visuals (RR-BM)

Assignment:: None
Explain course project notebook

Discussion Points:

Conferences:

Unit 2 *Fundamentals*

Module Two **Anatomy of Information Design**

Content: Components that are used in creating messages

Questions: What are components?
How are they combined?
What are examples of pioneering Information Design which show anatomy?
Who are Information Design pioneers?

Format:: Video lecture and visuals (RR)

Assignment:: Use course guide book by Y. Kook-Kim

Discussion points:

Conferences:

Module Three **Categories of Information Design**

Content: The vocabulary of Information Design:
Alphanumeric
Pictographic
Product Interface
Diagrammatic
Spatial/Cartographic
Hybrids: Informative/Explanatory

Questions: What are definitions of each type above?
What are seminal examples of Information Design that illustrate these categories?
Which pioneering designers created them?
When? Where?

Format:: Video lecture with visuals

Assignment::

Discussion points:

Conferences:

Module Four **Evaluating Information design**

Part One: **Macro view:**
Theories that Inform
Information Design:

Content: Identify and present major theories that i nform and influence Information Design:
Information theory(Tufte, Wurman)
Aesthetic theory
Sign theory
Whole Systems theory
Learning theory
Human Factors/Ergonomics

Questions: What are major relevant theories?
What is a theory?
Which theories provide structure for evaluating Information Design?
Which seminal examples best illustrate theories?
Which pioneering designers created these designs?

Format:: Video lecture and visuals (RR-CC)

Assignment:: Use support media created by CC+

Discussion points:

Conferences:

The most common definition of Information is: the action of informing; formation or molding of the mind or character, training, instruction, teaching, the communication of instructive knowledge.

Information Design can be made to inform. It must be imbued with form and applied to become meaningful information, leading to understanding.
Young Kook-Kim

Evaluating Information Design

Part Two: **Micro view:**
Applying theory

Content: Methods and criteria for evaluating effective Information Design

Questions: What is effective Information Design?
What criteria can be used?
What are effective examples?
Which pioneers created these examples?
Which theories provide structure for evaluation?

Format:: Video lecture and visuals

Assignment:: Use support media created by CC

Discussion points:

Conferences:

Unit 3 *Case Study*

Module Five **Will Burtin case study**

Part One

Content: Introduction of Burtin
Burtin in Germany

Questions: Who is Will Burtin?
Where did he live and what did he do?
Why is it important to learn about him?
How does he and his work fit into the context of this course?

Format:: Video lecture and visuals
Video interview with Carol and Robert Fripp in Toronto

Assignment:: Use DesignArchiveOnline

Discussion points:

Conferences:

Will Burtin case study

Part Two

Content: Burtin work in New York
Burtin's mature process

Questions:

Format:: Video lecture and visuals
Video interview with Carol and Robert Fripp

Assignment:: Use DesignArchiveOnline

Discussion points:

Conferences:

Will Burtin case study

Part Three

Content: Case Study of Upjohn projects

Questions:

Format:: Video lecture and visuals
Video interview with
Carol and Robert Fripp at RIT

Assignment:: Use DesignArchiveOnline

Discussion Points:

Conferences:

Unit 4 *Application*

Module Six **The design of Information Design**

Content: Information design practice for non-designers
Course Wrap-up

Questions:

Format:: Video lecture and visuals
Interview with Bruce Meader

Assignment:: Course project notebook due

Discussion points:

Conferences:

Appendix C 3 Task Overview/Clifford Commanday

The Task Overview was developed and written by Clifford Commanday, RIT graduate student in Graphic design, and shows the team development of the new course, *20th Century Information Design.*

Center for Digital Media
Office of Distance Learning
Rochester Institute of Technology

20th Century Information Design
New Course Development

Task Overview

draft
2.6.97

rit support administration

Reno Antonetti
associate VP, Academic Computing and User Services

Christine Guith
associate director, ETC

Pat Pitkin (WML)
director, WML

course administration

content development funding/grant proposal
Roger Remington (F-GGD/CDM)
project director

whole systems management
Cliff Commanday (GGD)
assistant project director

coordination with ETC/ODL budget
Sonny Stowe (ODL)
project coordinator

coordination with CDM
Malcolm Spaull (CDM)

course online development and delivery

internet strategies

research of online tools
First Class client software management & organization
Cliff Commanday (GGD)
Richard Fasse (ODL)

development of media map & online interactivity
Cliff Commanday (GGD)

course content modules

Information Design Anatomy module
organization of content
development of class materials
info design definition and syntax formulation
Young-Kook Kim (GGD)
part of MFA thesis development

Information Design Evaluation module
organization of content
development of class materials
theory map formulation
Cliff Commanday (GGD)
part of MFA thesis development

Design Archive Online module 2
module designer
Dan Mongeau (ID)
archivist
Kari Horowicz (WML)
cataloging
Sharon Fickeisson(WML)
photography/slides/photoCD
Steve Wunrow (ETC-TV)
database development
Erik Salmela (GD)
research assistant
computer systems
Michael Robertson (WML)

modules' graphic identity
Young-Kook Kim (GGD)
Cliff Commanday (GGD)

other content material
collecting and organizing media for lectures
Roger Remington (F-GGD/CDM)
Cliff Commanday (GGD)
Young-Kook Kim (GGD)
video production
Steve Wunrow (ETC-TV)

supplemental materials

course packet
orientation
course guide
supporting media
Cheryl Herdklotz (ETC)

course content Will Burtin case study

content organization
timeline development
Roger Remington (F-GGD/CDM)

video: Fripp interview
equipment acquisition
video shooting
Steve Wunrow (ETC-TV)

interview question development
Roger Remington (F-GGD/CDM)

repurposing archive material
photography/slides
transfer to photo-cd
Steve Wunrow (ETC-TV)

copyright clearance
Cheryl Herdklotz (ETC)

course content guest speakers

info design vocab and syntax
Bruce Meader (F-GGD)

on Will Burtin
Carol and Robert Burtin Fripp

GGD Graduate Graphic Design
F-GGD faculty in GGD
GD Undergraduate Graphic Design
ID Undergraduate Industrial Design
ETC Educational Technology Center
ODL Office of Distance Learning
WML Wallace Memorial Library
CDM Center for Digital Media

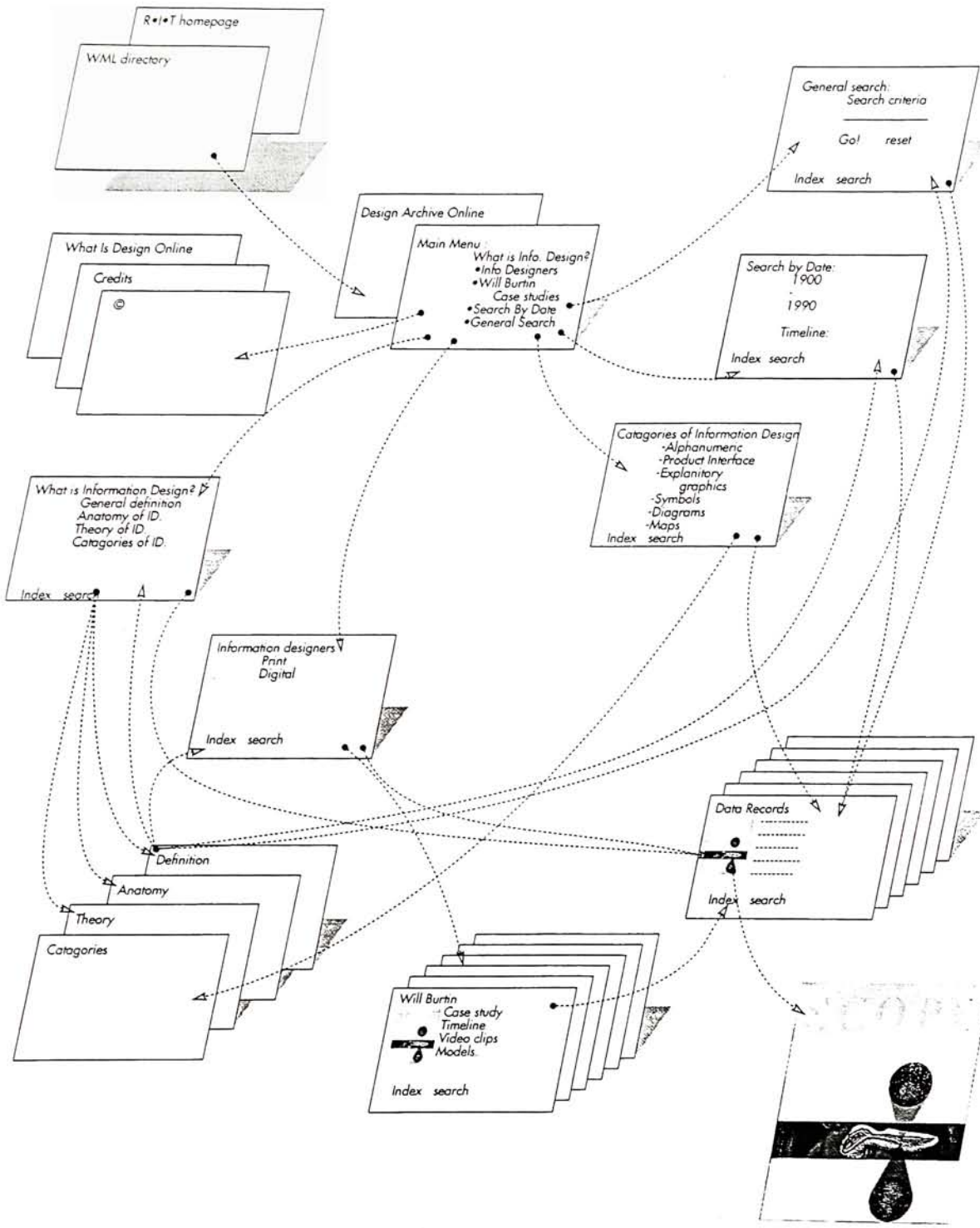
Appendix C 4 Navigation Plan

Design Archive Online draft/Dan Mongeau

The Navigation Plan was created by Dan Mongeau, RIT undergraduate student in Industrial design, and shows the navigation system among the screen stages for the *20th Century Information Design* course on the RIT *Design Archive Online*. Users will be able to access some parts of this thesis project, including *The Anatomy of Information Design*.

DesignArchiveOnline

20th Century Information Design



Appendix C 5 Evaluation Feedback Form from Junior Class

The Evaluation Feedback Form from the Spring 1997 junior year Information Design class shows student responses (10) to *The Anatomy of Information Design* study guide, matrix, and evaluation worksheet, based on clarity and communicability.

Guide book Feedback

April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

An educationally orientated to the scope of Information design, its theories, and applications.

Is the content order clear?

which is the most effective elements in the guide book?

I gained from comparing the quotes to your diagrams especially Lester Beall's.

About Anatomy of Information Design Matrix

Can you see and understand the matrix?

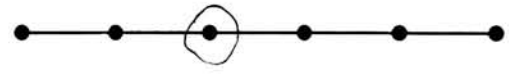
— more white space. I understand the limits restrict

Is the use of categories heading communicate well?

Is the use of components heading communicate well?

About Evaluation Work Sheet

Can you see and understand the matrix?



— need an example done using the Matrix.

Does the model help to evaluate the examples?

Other Suggestions

Guide book Feedback April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

a systematic overview of the components of ~~a~~ information graphics

Is the content order clear?

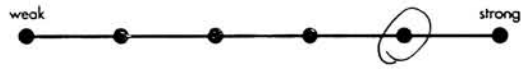
yes. the table of contents helps set the reader into a systematic view of information graphics

which is the most effective elements in the guide book?

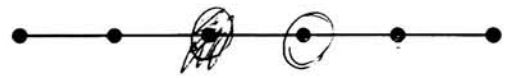
- content page
- glossary
- teamwork model
- matrix

About Anatomy of Information Design Matrix

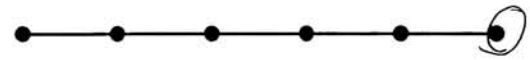
Can you see and understand the matrix?



Is the use of categories heading communicate well?

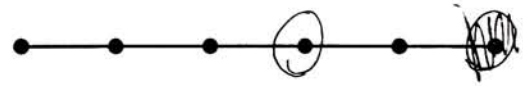


Is the use of components heading communicate well?

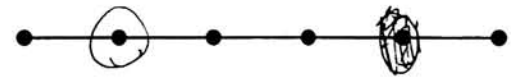


About Evaluation Work Sheet

Can you see and understand the matrix?



Does the model help to evaluate the examples?



Other Suggestions

the evaluation model is a little complicated unclear → try breaking it down as you have the matrix.

Guide book Feedback April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

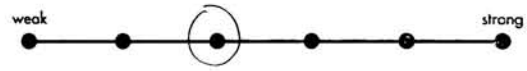
What do you think is the guide book content? I think it was alot of info

Is the content order clear? yes

which is the most effective elements in the guide book? I think the diagram is.

About Anatomy of Information Design Matrix

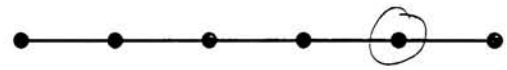
Can you see and understand the matrix?



at first I couldn't see the matrix is small.

Is the use of categories heading communicate well?

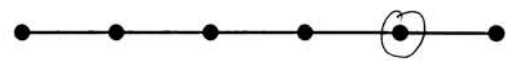
Is the use of components heading communicate well?



About Evaluation Work Sheet

Can you see and understand the matrix?

Does the model help to evaluate the examples?



Other Suggestions

try to make the matrix larger or more readable. I think it would also work better if you explained the matrix on paper as well as you explained it in class

Andrea Libata

Guide book Feedback

April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

The anatomy of information design, its categories + components

Is the content order clear?

very clear

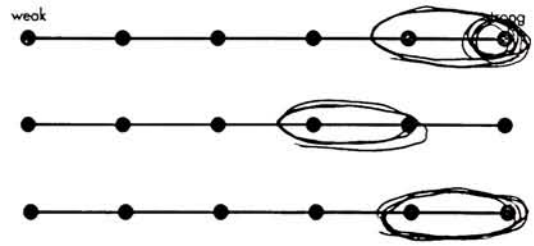
which is the most effective elements in the guide book?

the matrix + the information design components

About Anatomy of Information Design Matrix

Can you see and understand the matrix?

images included make very clear



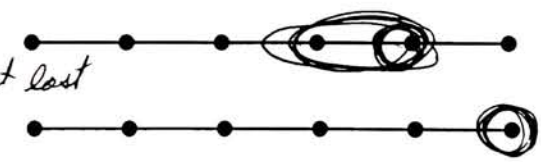
Is the use of categories heading communicate well?

Is the use of components heading communicate well?

About Evaluation Work Sheet

Can you see and understand the matrix?

some of more elaborat images get lost



Does the model help to evaluate the examples?

Other Suggestions

Guide book Feedback

April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

Information design and its use.

Is the content order clear?

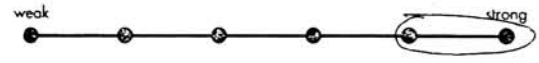
Very clear

which is the most effective elements in the guide book?

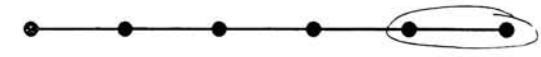
Information, + matrix

About Anatomy of Information Design Matrix

Can you see and understand the matrix?



Is the use of categories heading communicate well?



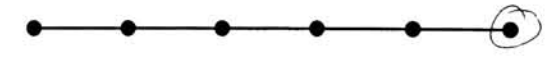
Is the use of components heading communicate well?

About Evaluation Work Sheet

Can you see and understand the matrix?

very clear

Does the model help to evaluate the examples?



Other Suggestions

Guide book Feedback

April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

information design processes & themes

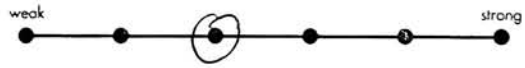
Is the content order clear?

yes

which is the most effective elements in the guide book?

About Anatomy of Information Design Matrix

Can you see and understand the matrix?



Is the use of categories heading communicate well?

Is the use of components heading communicate well?

About Evaluation Work Sheet

Can you see and understand the matrix?

Does the model help to evaluate the examples?

Other Suggestions

Guide book Feedback April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

information on information Design

Is the content order clear?

no I think the Design Components should be before the matrix

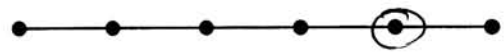
which is the most effective elements in the guide book?

the graphics of the images

About Anatomy of Information Design Matrix

Can you see and understand the matrix?

Is the use of categories heading communicate well?

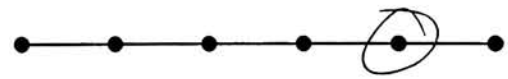


Is the use of components heading communicate well?

About Evaluation Work Sheet

Can you see and understand the matrix?

Does the model help to evaluate the examples?



Other Suggestions

Guide book Feedback April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

I think the guide book is a well organized book, and the information which it includes to be very helpful.

Is the content order clear?

Yes, I had no problem in understanding the information.

which is the most effective elements in the guide book?

The definition followed by the examples provided.

About Anatomy of Information Design Matrix

Can you see and understand the matrix?

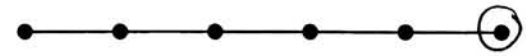
Is the use of categories heading communicate well?

Is the use of components heading communicate well?

About Evaluation Work Sheet

Can you see and understand the matrix?

Does the model help to evaluate the examples?



Other Suggestions

Guide book Feedback April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

The components and basic theories of communication design

Is the content order clear?

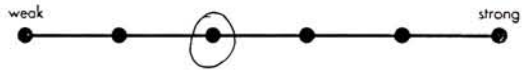
yes

which is the most effective elements in the guide book?

layout of text with images : hierarchy of elements

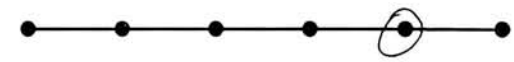
About Anatomy of Information Design Matrix

Can you see and understand the matrix?



Is the use of categories heading communicate well?

Is the use of components heading communicate well?



About Evaluation Work Sheet

Can you see and understand the matrix?

Does the model help to evaluate the examples?

Other Suggestions

Glossary of Terms is an excellent idea. Very practical.
The same about Biographies at the end. Great idea!
Everything is very clear + legible.
The images in the Anatomy of design Matrix are unclear because of size + output quality.

Guide book Feedback

April 1997

Please fill out this form while reviewing Information Design Guide book.
Evaluation is essential to update Guide book content. Thank so much for your time and feedback.
If you have any helpful suggestion feel free stop by graduate graphic design studio.
(room number 3510, Young Kook Kim)

Content Communication in the guidebook

What do you think is the guide book content?

the history of information design

Is the content order clear?

yes

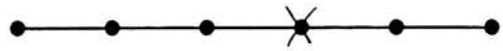
which is the most effective elements in the guide book?

About Anatomy of Information Design Matrix

Can you see and understand the matrix?

Is the use of categories heading communicate well?

Is the use of components heading communicate well?



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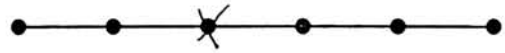

Other Suggestions