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Graphic design and architecture at their intersection

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Thesis Project Definition

Graphic Design and Architecture
At Their Intersection

Thesis Problem

This thesis will explore the increasingly important role played by graphic design in architecture. Traditionally thought of as a two-dimensional applied art, graphic design has relevant applications in the design of places. This is sometimes known as environmental graphic design. The premise of this investigation is that by extending graphic design into the world of architecture, both disciplines are strengthened. Graphic design in an architectural context benefits from a more long-lasting medium, in material and duration, than its more common forms in print, film or digital media. Architecture, in its turn, gains another way to communicate to an audience, one that is more flexible and changeable than its otherwise static structure would ordinarily permit.

The research component of this thesis will analyze the ways in which environmental graphic design is similar to and different from architecture and two-dimensional graphic design. Research will also show how and why this hybrid is important. It will analyze the ways in which graphic design in the built environment adds value or interest to a place, marks territory, acts as ornament, provides identity, and adds meaning in ways that could not be achieved by architecture or graphic design alone. It will identify a wide range of applications where this might be useful.

Proposed Application

The application of this thesis study will be a book about the subject outlined above. This book could be used as a guidebook for teaching about these disciplines. It could also be used as a reference book for designers and clients considering the incorporation of graphic design in an architectural project.

This application will collect and organize information that is currently scattered, existing in pockets across disciplines and mainly in periodicals. With this collection and analysis of material new insights will be possible that will contribute to our understanding of the growing field of environmental graphic design.
The Nature of the Problem and Its History

Increasingly, design projects are works of collaboration, not only with professionals of a single design discipline, but often with individuals possessing different kinds of design expertise. This could be attributed to the growing specialization of knowledge, with the information explosion making it more difficult to maintain a general practitioner’s approach to design. This could be due to regulations which require approvals from authorized experts and it could also be attributed to client demand. Competitors in the design market, seeking to stand out from their competition, add experts to their teams to enhance service to clients. Clients, in turn, begin to expect this approach and it becomes standard practice rather than an exception.

With this increased collaboration among professionals comes a sharing of expertise and a blurring of the lines between the disciplines. This study focuses on one such intersection of design fields: architecture and graphic design. It examines the shared links between the two fields, including similarities in their languages and histories. It identifies an emerging field, environmental graphic design, which incorporates aspects of architecture and graphic design, among other disciplines.

Goals of the Project

The main goal of this project is to increase awareness of environmental graphic design. Though the name environmental graphic design is newly coined, the work that falls into this category has a long tradition. This research attempts to collect both current and past examples to promote this understanding. The research will be presented in the form of a book.

The target audience for the book includes students, practitioners and the general public. For architects and graphic designers, and students of both disciplines, it is hoped that an exposure to this work will inspire more work of this kind. By explaining the features held in common by the two disciplines, by naming their shared traditions and intentions, and by demonstrating that both speak the same visual language, it is hoped that boundaries between the disciplines will be eroded and collaborations between practitioners will be made easier.

For the general public reviewing this material, it is hoped that they will be entertained, challenged and inspired. While they may never have given much consideration to the impact this kind of design might have on their lives, it is hoped that after this presentation they become aware of the value of this work. Perhaps some, through involvement in civic, social or business projects, may even become patrons of this work.
One early exercise in the thesis process was the search for precedents that had some significant relationship to this thesis study. Five books were reviewed that seemed to have written or visual content in common with the proposed book's theme of the intersection of architecture and graphic design. A short summary of the precedents was written and submitted. It is reproduced here below for reference.

**Precedent 1**

*Experience* states on its cover that it “visually documents the ideas and aspirations of contemporary designers, marketers, artists and clients. Its sole purpose is to challenge convention through an unprecedented insight into some of the world's most innovative communication experiences.”

Many of the examples shown fall into the realm of environmental graphic design. This book provides a significant precedent for this thesis study by demonstrating the power of visual communication freed from the page. Messages delivered across time, integrated with landscape and structure, in innovative formats, or using new materials, are shown as powerful instruments in the service of ideas.

*Experience* is similar to the proposed thesis study in the way it collects and organizes examples of innovative visual communication. Though its scope is broader than the proposed study, including excerpts of cinema, print, and television, it provides a helpful example of how to present somewhat similar material in a book format.

**Precedent 2**

*Iconography and Electronics Upon a Generic Architecture* writes about the influence of electronics and the information age on the design of architecture. His writings call for contemporary architectural design to celebrate electronic rather than industrial influence and to employ iconographic reference rather than expressionistic gesture. Venturi actively advocates the incorporation of graphic design elements into generic architecture. His book acts as a precedent to this study by supplying a theoretical context for connecting architecture and graphic design.
Precedents continued

A History of Visual Communication
Josef Müller-Brockmann

Precedent 3
In this book, Josef Müller-Brockmann cites a variety of examples of ancient graphic design. Many of these are incorporated into buildings. These examples demonstrate that the practice of incorporating visual language into places is not at all new. The idea that shared visual communication, that which can be experienced by many people at the same time and in the same place, is significant to a culture is a fundamental premise of the proposed thesis study.

Brockmann’s book also provides a precedent for the proposed study as another example of how to present ideas about visual communication, including environmental graphic design, in book form. Brockmann’s evaluations of visual communication from a graphic design perspective balance Venturi’s observations from an architectural perspective.

Theory and Design in the Second Machine Age
Martin Pawley

Precedent 4
Specifically in the chapter, “Information, the Gothic Solution,” author Martin Pawley describes the Gothic cathedral as an information system. He advocates the return of architecture to this role as a center for the dissemination of information. This concept provides another precedent for linking architecture and graphic design in the proposed study.

As another book about design, Pawley’s book provides a helpful precedent in the structure of its content. His ideas about architecture and information is somewhat unconventional. His book is successful because he builds to his conclusion in a very deliberate way. He uses an engaging story-telling style and includes many photographs of individuals as he gives his interpretation of design history. By first carefully aligning the reader’s context about design with his own, he is then able to make creative leaps. The prepared reader is then willing and able to make those connections with him.

Sign Communication
Sign Communication
Publishing Committee

Precedent 5
The sub-title on this book is “Community Identity–Corporate Identity Environment.” It is filled with examples of environmental graphic design mainly from Japan and the United States. This book provides a precedent for this study in the way it categorizes artifacts of visual language. Using the subdivisions of Media, Function and Environment the book examines why and how environmental graphic design adds significance to places.
Research and Analysis

Research and Analysis Strategies: Diagrams

In the Research and Analysis phase of the thesis process, information was collected and ordered. Definitions were gathered to help establish the boundaries of the research. The main activities at this stage were reading, writing and organizing.

The guidelines for writing a thesis state that the purpose of this phase is to describe facts, principles and relationships that have been discovered to help solve the problem. To that end, diagrams were created to explore and document pertinent principles and relationships and to determine sub-topics. Typically, the diagrams were not fully resolved statements about the theme. Instead, they functioned more like warm-up exercises. In retrospect, they can be regarded as markers on a trail that eventually led to the choice of subjects covered in the design application.

An initial investigation (see page 10) used a Venn diagram format to show that the main idea of the study was to identify and research the overlap between architecture and graphic design. This diagram also attempted to compare and contrast the essence of both fields by including some well known quotes by famous practitioners. The quotes of two men, Vitruvius, a Roman architect from the first century B.C. and El Lissitzky, a graphic designer active around the 1920s, suggest that both fields, at their essence, embody a combination of beauty and purpose.

The main purpose of graphic design is to convey meaning. The most obvious purpose of architecture is to shelter. However, another quote from Vitruvius made a parallel between the two fields clear. He said, “In all matters, but particularly in architecture, there are these two points: the thing signified, and that which gives it its significance.” From this, one might understand that architecture too has long held the purpose of signification, of conveying meaning.

The words of Vitruvius suggested the theories of semiotics, the study of signs. A second diagram (see page 11) was created repeating the quotes of Vitruvius and El Lissitzky, labeled by their respective design fields, and overlayed with categories borrowed from semiotics: the pragmatic, syntactic, and semantic aspects of a subject. Though the diagram was imperfect in its pairings and never was developed beyond this initial rough phase, it served as an important turning point in the thesis project. After creating this diagram, research focused on the similarity in visual composition and appearance between the two fields (syntactics) and the purpose both serve in conveying meaning (semantics).
Diagrams were used to sharpen focus on the topic under consideration. Also, at the early stages of the project, diagrams were used to introduce the topic to fellow classmates and teachers who served as critics and collaborators through the course of the work.

The diagram above illustrated that the main idea of this project was to identify and study the overlap between architecture and graphic design.
Exploratory Diagram: Semiotic Aspects of Architecture and Graphic Design

**commodity**

Pragmatics
*the practical considerations*
the building program
the functional aspects of the building
the size, the budget, the materials...

**firmness**

*In Architecture*

Syntactics
*arrangement and relationship of parts*
the structure
the assembly of building systems
the arrangement of parts
the sequence of construction

Semantics
*the meaning*
arrangement of elements are read and interpreted according to tradition

**delight**

Pragmatics
*the practical considerations*
the brief
the physical requirements of the piece
the size, the budget, the material...

**seduce the eye**

*In Graphic Design*

Syntactics
*arrangement and relationship of parts*
the structure
the assembly of elements
the arrangement of text and image
the conventions of printing and production

Semantics
*the meaning*
arrangement of elements are read and interpreted according to tradition

**address the intellect**

Though never fully resolved, these early diagrams helped focus the thought process.
Narrowing the Field of Inquiry: Matrices
Because this project involved a comparison of two fields, architecture and graphic design, and their union in a third field, environmental graphic design, the format of a matrix was used to further explore and define the similarities and differences in all three fields. At this stage, it was not yet obvious which characteristics would be the most beneficial for further research. At the same time that the previously mentioned diagrams were created, a matrix was formulated with selected characteristics of design on the vertical axis cross referenced to the three fields of design on the horizontal axis.

The result was titled the Compare/Contrast Matrix (see page 13). Using this method helped to narrow the range of the study. Certain physical characteristics, like color and size, seemed to be too diverse to offer any meaningful conclusions from further study. The categories labeled "Design Strategies" and "Purpose" offer more potential as they suggest ideas that are similar to the previously named categories of Semantics and Syntactics. Another category, labeled "Design History," also emerged as a good candidate for deeper examination.

A related method of investigation was titled Forced Juxtapositions (see page 14). This matrix compared the three design fields in a different way. One axis identified characteristics that environmental graphic design shares with graphic design. On the other axis, were some characteristics that environmental graphic design shares with architecture. This kind of method is often used to generate new ideas at the intersection of two axis points. In this case however, it offered more value by demonstrating how much similarity exists between all three fields. Characteristics like color, contrast, composition, ornamental qualities, tactile qualities and scale, could exist on either side of the matrix. By analyzing which categories were unique, such as flexibility and permanence, the topics that merited further consideration were identified. This exercise became key in determining advantages offered by environmental graphic design which are not met by either architecture or graphic design alone.

Mapping
A final method used was the Perceptual Map, (see page 15). The field of study was defined by comparing two sets of opposing characteristics. In this case, the characteristics chosen were two and three dimensions, and decoration and communication. Placing examples of environmental graphic design on this map helped focus the boundaries of the research that followed. It also suggested categories for analyzing environmental graphic design that were useful in organizing the growing collection of images.
### Compare / Contrast Matrix

<table>
<thead>
<tr>
<th>Graphic Design</th>
<th>Environmental Graphic Design</th>
<th>Architecture</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Materials</strong></td>
<td>typically ink or paint on weather resistant sheets (vinyl, fiberglass, porcelain enamel, aluminum or other sheet metals) or any other typical architectural building material (brick, stone, glass, neon, etc.)</td>
<td>materials that are weather resistant and structurally sound</td>
</tr>
<tr>
<td><strong>Size</strong></td>
<td>small (house numbers) to monumental (the Eiffel Tower with millennium markers)</td>
<td>room size to monumental</td>
</tr>
<tr>
<td><strong>Purpose</strong></td>
<td>to communicate information and complement the design of the place of which it is a part</td>
<td>to shelter, to create tone or mood, to fulfill cultural and social expectations (e.g. courthouses don’t look like warehouses although a warehouse could serve to shelter that purpose)</td>
</tr>
<tr>
<td><strong>Methods</strong></td>
<td>likely to use typography</td>
<td>typography not necessarily required to convey purpose</td>
</tr>
<tr>
<td></td>
<td>may use same imagery as graphic design, enables buildings to communicate meaning</td>
<td>symbolic elements used more frequently than indexic or iconic imagery, some symbols understood only by other architects and often intended meaning has been lost to the general public</td>
</tr>
<tr>
<td></td>
<td>to a wider audience than possible without these elements</td>
<td></td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>any color, in order to add drama to an otherwise neutral building. In some cases examples may be more subdued in their use of color than typically found in print graphics due to a building’s neutral palette.</td>
<td>any color possible but most often integral colors</td>
</tr>
<tr>
<td><strong>Design Strategies</strong></td>
<td>systems design variables: position, language, imagery, color, content, type, weight, leading etc</td>
<td>systems design includes decisions for all materials, all building systems (lighting, heating, plumbing, structure, power), all functional and aesthetic choices, all influenced by prevailing codes and zoning regulations</td>
</tr>
<tr>
<td></td>
<td>same as graphic design but influenced by structural considerations, codes and zoning regulations</td>
<td></td>
</tr>
<tr>
<td><strong>Design History</strong></td>
<td>the integration of written communication with buildings can be considered to be almost as old as writing itself, however, the modern definition of environmental graphic design has only existed since the 1970s</td>
<td>influence of design history goes back to pre-humanistic civilizations</td>
</tr>
</tbody>
</table>

Matrices structures suggested from
*The Universal Traveler*
Don Kobarg, Jim Bagnall
Forced Juxtapositions

Characteristics EGD Shares with Architecture

<table>
<thead>
<tr>
<th></th>
<th>Mass</th>
<th>Structure</th>
<th>Lighting</th>
<th>Materials</th>
<th>Permanence</th>
<th>Tactile Qualities</th>
<th>Ornamental Qualities</th>
<th>Exists Over Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication Goals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iconic, Indexical or Symbolic Elements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Typography</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Composition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contrast</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flexibility</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Printing Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freedom of Expression</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Items not highlighted could appear on either side of the matrix. They are characteristics shared by both architecture and graphic design.

Highlighted items are characteristics shared with environmental graphic design that are exclusive to either architecture or graphic design. These are the traits that help EGD act as a bridge between the other two disciplines.

Matrices suggested from The Universal Traveler
Don Koberg, Jim Bagnall
Research and Analysis continued

Perceptual Map

3 Dimensions
- fine art (e.g., Christo)
- landmarks, monuments that use typography or graphic elements integral to design
- exhibit design
- theme environments that use graphic elements as ornament (retail, entertainment, hospitality)
- identity signs, logos brand markings integral with building design

Decoration
- floor finishes: carpets, resilient tile, ceramic tile, sheet flooring
- some ceiling finishes, some laminates
- wallcoverings, stencils, paint, pattern

Communication
- signs applied to buildings and interiors (stock signage)
- books, magazines, reports, correspondence, posters

Elements of the thesis study

Perceptual Map from
Design and Marketing of New Products
Urban and Hauser
Content Research
The insights gained from using the diagrams, matrices and the map narrowed the range of the continuing research. Certain associations became more apparent and a rough impression of the chapters of the book began to emerge. The most striking ideas were that architecture and graphic design have similar design characteristics because the objects they yield are perceived mainly through the sense of vision. Both fields have a role to play in conveying meaning. Both have traced similar attitudes and stylistic conventions through history. By combining their characteristics, environmental graphic design offers yet another arena of possibilities.

Graphic Design and Architecture as Objects of Vision
Research for this sub-topic centered around the perceptual principles identified by Gestalt psychologists, beginning with the work of Christian von Ehrenfels in 1890. The Gestalt theorists described many principles of visual perception, such as grouping, continuity, figure and ground. These principles apply to both graphic design and architecture but to different degrees.

The book, Design in the Visual Arts, by Roy R. Behrens was particularly helpful in its explanation of Gestalt theories and their place in the history of aesthetics. Perception and Imaging, by Dr. Richard Zakia provided thoughtful explanations of Gestalt theory as well as many helpful two-dimensional examples. Design Through Discovery, The Elements and Principles, by Marjorie Elliott Bevlin, was a rich resource for examples of demonstrating visual principles in both two-dimensional and three-dimensional design applications.

From the research, text was written to briefly explain some of the Gestalt theories and to point out some of their limitations. Visual examples from both graphic design and architecture were collected and added to this early draft of the text.

Graphic Design as a Conveyor of Meaning
One of the main purposes of graphic design is to convey meaning. It was not difficult to find examples that support this claim. A History of Graphic Design by Philip Meggs and A History of Visual Communication by Josef Müller-Brockmann relate the history of graphic design. They both show that the roots of this discipline can be traced back to the earliest forms of writing. These books explain the origins of written language as an evolution from pictorial representation to increasingly abstract forms distant from their original significations. These books provide many examples of work that demonstrate both the rich history of graphic design and its importance as a tool for conveying meaning in a society.
More contemporary examples demonstrating graphic design as a tool for meaning came from a wide range of sources. Especially helpful were the publications Print and Graphis. By coincidence, many examples collected from a variety of other sources were eventually found together in a collection called, The School of Visual Arts Gold: Fifty Years of Creative Graphic Design. This book showcases posters from a half century of work done for the School of the Arts. The collection encompasses a broad range of messages and communication styles. Another excellent source for images was The New American Logo, a diverse collection of work edited by Gerry Rosentsweig.

Architecture as a Conveyer of Meaning

Supporting the claim that architecture is a conveyer of meaning required more varied research as this is a less familiar theme. Research showed that the origin of architecture as a design discipline was closely related to the construction of important, often sacred, buildings. Sacred buildings in early cultures were frequently built to express a culture’s understanding of mankind’s place in the universe. Ideas of mythology and religion became manifest in buildings. There are many examples of early buildings that convey meaning. For instance, temples took the form of sacred mountains. Roofs were domed to simulate the heavens. Buildings were built square with openings in four directions to mark the four cardinal points of the compass. Geometry was thought to have sacred properties which related to the workings of the cosmos. In many cultures, important buildings were constructed to be in harmony with sacred proportions and to express important ideas.

Some of the sources for this aspect of the research were, Sacred Architecture by A.T. Mann, Architecture, Mysticism and Myth by W. R. Lethaby, Sacred Geometry by Nigel Pennick, The Old Way of Seeing by Jonathan Hale, and Time Stands Still by Keith Critchlow. These books and others used in the research, make the point that architecture was once a vital means of expression for a society. Over time, the original meanings were changed and sometimes lost. Architecture became less important as a vehicle for conveying meaning.

Researching the Evolution of Meaning

Other research identified that both graphic design and architecture have experienced similar patterns of evolution. Examples were found in both fields where the original forms for expression of meaning were pictorial representations. Across time, the forms became more and more abstract and, in architecture especially, this contributed to an erosion of the original meaning.
An explanation of the effects of this erosion is found in Modernism's History: A Study in Twentieth Century Art and Ideas, by Bernard Smith. He describes its ultimate culmination in art at the beginning of the twentieth century when the expression of form was given privilege over meaning. He calls this ascendency of abstraction, the Formalesque. It was during this time that artists, like Theo van Doesburg, and painter Piet Mondrian of De Stijl, promoted the idea that correct relationship of forms provided the essential aesthetic experience. At the same time other artists, like those associated with Dada, reacting to world war, made experiments using art to express meaninglessness.

Smith describes however, that simultaneous with this devaluation of meaning, was work done independently by the Swiss linguist, Ferdinand de Saussure and the American philosopher, Charles Peirce. Through their work was born the study of semiotics, or the study of signs. Their theories supported the idea that art can be interpreted as a visual language. The gradual acceptance of their ideas marked the point where the pendulum began to swing back toward signification of meaning in art over the exclusive expression of form.

It is also through their work, that the fields of architecture and graphic design can be seen to become linked. Both architecture and graphic design became deeply influenced by the theory of semiotics, since both disciplines offer a means of visual communication. In graphic design, the idea of visual language was amplified to include concepts of visual grammar and syntax. In Perception and Imaging, Richard Zakia describes some of the research done to classify semiotic operations like addition, subtraction and substitution in visual imagery.

In architecture, the influence of semiotics was felt in the development of a Post-Modern style. Some architects, no longer satisfied with the formal abstractions of Modern architecture, sought to resurrect old forms and invest them with new, often ironic meanings. Among the most influential of these architects was Robert Venturi. Complexity and Contradiction in Architecture, one of Venturi's first books, acted as a foundation for renewed explorations of layered meanings, ambiguous meanings and vernacular meanings expressed in architecture.
Graphic Design and Architecture as Recorders of History

This phase of the research sought to demonstrate that graphic design and architecture are subject to the same influences and use similar means of expression. To document these similarities of styles and ideas, images were collected that demonstrated correspondences between the two design disciplines at different times in history.

For instance, at the time of the Art Nouveau, around 1900, both graphic design and architecture were influenced by a romantic vision of nature and both used sinuous lines to convey the idea of organic form. Years later, in the 1930s, the public was intrigued by the idea of speed and developing industrial technology. Both architecture and graphic design reflected this with streamlined designs that suggested movement.

Another example was selected from the time of the Bauhaus, when there was a deliberate attempt not only to blend the arts, but to blur the line that existed between art and technology. The resulting work shows strong resemblances between graphic design and architecture. Both demonstrate a rejection of decorative ornament in favor of clean lines and abstract geometry. Other more contemporary pairings were found in the jarring juxtapositions of Frank Gehry's Deconstructivist buildings and similarly unconventional graphic compositions by David Carson.

Some sources that were particularly helpful were, Graphic Design from Victorian to Post-Modern by Seymour Chwast and Stephen Heller, and Graphic Design in the Mechanical Age edited by Maud Lavin. The main reference text used for architectural history was A History of Western Architecture by David Watkin. Images for architectural examples were collected from many different periodicals including Architecture, Architectural Record, and Colonial Homes magazine.
Environmental Graphic Design

Environmental graphic design is a relatively new field. The main source for information about this field was the professional organization that was founded to promote this kind of work, the Society for Environmental Graphic Design (SEGD). SEGD provides a definition of the discipline and examples in its awards publications, and case studies in the book, *You Are Here, Graphics That Direct, Explain and Entertain*.

Other source material came from publications by people who are key members of SEGD. Wayne Hunt, has written *Urban Entertainment Graphics and Designing and Planning Environmental Graphics*. Another book, *Wayfinding, People, Signs and Architecture* by Paul Arthur and Romedi Passini, is a fundamental text. This book provides a basic premise for using environmental graphic design to assist people in navigating through new territory.

A multi-cultural view of the design of signage was gained from the Japanese publication, *Sign Communication*. Another source of information not associated with SEGD, was the book *Experience*, edited by Sean Perkins, which takes a broad interpretation of visual communication and does not use the term environmental graphic design. Also, the book *Marketing By Design* by D. K. Holland and Sherwin Harris, provided examples of the extension of graphic design into the three dimensional realm in retail store design, without specifically referring to this type of work as environmental graphic design.

In addition to examples found in the sources mentioned, original photographs were taken of some examples of environmental graphic design. Taking information from all these sources, and using first-hand observations, a personal interpretation of the field of environmental graphic design began to evolve. The chief uses of environmental graphic design were determined to be: to identify, inform, persuade, entertain, orient, ornament, and commemorate.
Synthesis

Many aspects of the synthesis phase occurred simultaneously with the research phase. In the synthesis phase, the gathered information was sorted and organized. Images were collected and grouped in categories of study within the topic. In this way, patterns emerged that proved helpful in organizing and understanding the range of material. Gradually the categories began to evolve into chapters and sub-sections of the proposed book.

Organization and Structure
At the beginning of the synthesis phase, the book was divided into two main parts.

**Initial Table of Contents**

**Part One**
Similarities Between Architecture and Visual Communication
Conveyors of Meaning

**Part Two**
The Intersection of Architecture and Graphic Design:
Environmental Graphic Design
Its Value
Conclusion: Why Its Important Now

One of the main efforts of the synthesis phase was to refine and improve the Table of Contents for the book. At this early stage, the term visual communication was thought to suggest a broader meaning than graphic design. It was eventually abandoned in favor of the more familiar term. Other changes occurred over the course of the synthesis phase as well. The information organized under the heading *Its Value* had sub-topics *The Benefits for Architecture* and *The Benefits for Graphic Design*. Eventually these were relocated to become the basis for the conclusion to the book.

A subtopic under *Its Value* was *Its Uses* and this included the list: Identity, Wayfinding, Memorials, Exhibit Design, Attraction, Persuasion. Effort went into expanding this list to make it more comprehensive and to find parallel language to relate and name the diverse uses of environmental graphic design. By the end of the synthesis phase the Table of Contents was more simplified and closer to its final form:

**Final Table of Contents**

**Part One**
Comparing Graphic Design and Architecture

**Part Two**
Integrating Graphic Design and Architecture

**Part Three**
Understanding the Intersection of Graphic Design and Architecture

Examples demonstrating the evolution of the Table of Contents in greater detail can be found in the Appendix (see page 51).
The Parts of the Topic and Their Relationships

In order to identify and organize sub-topics within the initial broad categories of the early Table of Contents, another matrix was created. Following some suggestions in *The Craft of Research* by Wayne Booth, Gregory Colomb and Joseph M. Williams, an attempt was made to understand the relationship of the different design disciplines to each other and the relationship of the parts to a larger whole (see p. 21).

Using the categories suggested by this matrix, and sorting through the images that had been collected, the strongest themes emerged. Some categories were eliminated and some were consolidated into larger categories. For instance, “perceptual principles” and “Gestalt grouping principles” were combined. “Semiotics” and “visual rhetoric” suggested once again the importance of conveyed meaning in all three fields. “Systems theories” were not explicitly included in the final organization, but the larger category of composition principles, to which they could relate, did find a place in the final book. In this way progress was made in determining the contents of the design application.

Using the matrix and collected images, it was possible at this stage to demonstrate to the thesis committee the broad outlines of the project. A key suggestion that emerged around this time was to create a rough mock-up of the entire book, identifying the content of each page. This suggestion added another helpful boundary to the project. With the content beginning to take shape, the mock-up, at first no more than doodles on blank paper, encouraged decisions about the length of each section. It helped to identify which topics had ample images already collected and which still had none. It also served to identify roughly how much text would be needed in each section.

Visual Analysis of Precedents

Another exercise that was undertaken at this time was a review and analysis of the visual properties of some of the books that served as precedents for the developing project (see page 24). The earlier review of precedents had been mainly focused on content. This time a matrix was created that analyzed the visual aspects of these books, in order to see if any helpful patterns emerged that could influence design decisions in the next phase of the project. While no strong influences did emerge, the exercise was helpful in identifying upcoming decisions for the new book design, such as those related to: page size, orientation, typeface, and grid format. Fonts were tested and early schematic layouts were begun to explore the organization of material on a page.
Following suggestions in *The Craft of Research* by Wayne Booth, Gregory Colomb and Joseph M. Williams, this diagram started to visually organize parts of the topic in relation to a larger whole. This exercise proved to be helpful as a format for collecting examples to be used in the application.

**Aspects of the Intersection of Graphic Design and Architecture:**
Parts of the Topic and Their Relation to a Larger Whole

<table>
<thead>
<tr>
<th>Shared Theories</th>
<th>Architecture</th>
<th>Graphic Design</th>
<th>Environmental Graphic Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gestalt (Grouping Principles)</td>
<td><img src="image" alt="Architecture Example" /></td>
<td><img src="image" alt="Silhouette" /></td>
<td><img src="image" alt="Environmental Graphic Design Example" /></td>
</tr>
<tr>
<td>Semiotics</td>
<td><img src="image" alt="Architecture Example" /></td>
<td><img src="image" alt="Graphic Design Example" /></td>
<td><img src="image" alt="Environmental Graphic Design Example" /></td>
</tr>
<tr>
<td>Visual Rhetoric</td>
<td><img src="image" alt="Architecture Example" /></td>
<td><img src="image" alt="Graphic Design Example" /></td>
<td><img src="image" alt="Environmental Graphic Design Example" /></td>
</tr>
<tr>
<td>Systems Theories</td>
<td><img src="image" alt="Architecture Example" /></td>
<td><img src="image" alt="Graphic Design Example" /></td>
<td><img src="image" alt="Environmental Graphic Design Example" /></td>
</tr>
<tr>
<td>Perceptual Principles</td>
<td><img src="image" alt="Architecture Example" /></td>
<td><img src="image" alt="Graphic Design Example" /></td>
<td><img src="image" alt="Environmental Graphic Design Example" /></td>
</tr>
</tbody>
</table>
### Visual Analysis of Precedents

<table>
<thead>
<tr>
<th>Experience</th>
<th>A History of Visual Communication</th>
<th>Sign Communication</th>
<th>Morphosis Buildings and Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>purpose of book</td>
<td>to inspire and challenge convention</td>
<td>a survey of the history and variety of visual communication</td>
<td>a survey of examples of all kinds of signs (environmental graphic design)</td>
</tr>
<tr>
<td>audience</td>
<td>designers, marketers, artists and clients</td>
<td>designers, scholars international- in three languages, English, French, German</td>
<td>designers, scholars clients Japanese and English speaking readers</td>
</tr>
<tr>
<td>typeface</td>
<td>san-serif all caps</td>
<td>san-serif upper and lower case</td>
<td>serif upper and lower case Japanese characters</td>
</tr>
<tr>
<td>type size (approximate)</td>
<td>Headlines-24 Subheads-14 Body Copy-9 Captions-7</td>
<td>Headlines-9 (bold) Body Copy-9 Captions-9</td>
<td>Headlines-14 Subheads-9 bold Body Copy-9 Captions-7</td>
</tr>
<tr>
<td>standards for body copy</td>
<td>large blocks hung from top of page usually on one side</td>
<td>three columns from top whole pages of text- with no pictures</td>
<td>one, two and three columns all at beginning of book, extensive captions inside only</td>
</tr>
<tr>
<td>main headings</td>
<td>centered on the page</td>
<td>left justified</td>
<td>left justified, typically spaced high above body copy or alone in column to the left</td>
</tr>
<tr>
<td>grid format</td>
<td>2 kinds quarters thirds horizontal and vertical</td>
<td>vertical thirds pictures aligned from 1/3 up from bottom of page, centered vertically</td>
<td>three columns across half, third and other vertical divisions great variety, but clearly in a grid</td>
</tr>
<tr>
<td>page size</td>
<td>8 3/4” wide 11” tall</td>
<td>8 3/4” wide 11” tall</td>
<td>9” wide 12” tall</td>
</tr>
<tr>
<td>page orientation</td>
<td>vertical (cover horizontal)</td>
<td>horizontal</td>
<td>vertical</td>
</tr>
</tbody>
</table>
Synthesis continued

One important part of the synthesis phase involved making basic decisions about typography and overall visual organization. This series demonstrates how different options were tested.
Ideation

Ideation for the Application
The research, analysis and synthesis phases culminated in the creation of a design application, a book in this case, about the intersection of graphic design and architecture. Ideation, the formation and exploration of ideas, was the next step in the process of creating this book.

Design Approaches
Design decisions were motivated by the content, that is, they sought to be as clear as possible and to visually express the work's main idea. The choices made attempted to visually reinforce the idea of a comparison of differences, of overlapping fields, the dissolution of boundaries, and the resolution of two things into one. In the ideation phase many aspects of design were tested such as the selection of examples, the organization of material, the page size, typographic decisions, the appearance of a typical page in the book design, color, layout and systems decisions as they related to the book's content.

Images and Organization
Some images were determined almost immediately. Some, though they were strong choices and matched the subject matter, were eliminated during ideation because they did not fit well with other images around them. Some images were difficult to find and substitutions were made right up to the printing of the final draft.

A first draft of the book was presented at a thesis committee meeting to review the rough content and the organization. Some suggestions were made for rearrangements. The most significant was to move the section on the uses of environmental graphic design forward to give it more prominence. In this way, a section on case studies moved back to serve as a summary and conclusion.

Page Size and Typographic Decisions
Different page sizes and orientations were tested. A page size was chosen that was similar to the average size of the precedents that had been examined. Page size was chosen based on functional criteria. Pages were not oversize, yet were still large enough to accommodate a number of images. Because there were many pairs of images intended to be seen together, a horizontal format was eventually decided upon.

To express the idea of two fields in comparison, two distinct typefaces were chosen to be used throughout the book, one serif, the other sans serif. The font, Minion, was used for body copy and in association with the theme of graphic design. For architectural themes and headlines, Univers 67 Condensed Bold Oblique was used.
Ideation continued

Initially, the idea of overlapping typography was explored to express overlapping fields of design. Thick and thin rules related to each main topic.

The theme was continued with overlapping quotes and definitions about each of the three design fields.

Adding color to the idea of overlapping put too many variables in play. The resulting design was visually noisy.

Once the typefaces were chosen, page grids were created. The size of the grid structure was based on a text column that could accommodate ten to twelve words of type in the Minion typeface. This length of text is the maximum recommended for easy comprehension when reading many lines of type.

Typography was also used to reinforce the ideas of overlapping subjects (graphic design and architecture) and the idea of a field between other fields (environmental graphic design.) For the cover, one early idea was to overlap the words "Architecture" and "Graphic Design." On an inside page definitions and some quotes were likewise overlapped to suggest ideas that exist between two polarities.

In the layout, the idea of overlapping boundaries was expressed by using two rules in a few different ways. Throughout the book, at the beginning of chapters, a thin rule was used in the color linked to the subject of graphic design. A thicker rule below was linked to architecture. Chapter headings appeared between these two symbolic rules.

Another use of rules was tested on pages with comparisons between the two fields. The upper rule was reserved for examples of graphic design. The lower rule was reserved for examples of architecture. In the second part of the book, about the combination of the two related disciplines into environmental graphic design, the examples were organized around one rule, centered between the positions of the previous pair of rules.

Color
Initially, color was selected from pastel shades rather than more intense colors to correspond to the idea of a subject between distinct fields. The concept of being in between was further suggested by experiments with gradient blends. These were used on the cover and in the thicker, rules used throughout the book.

Initial Review and Revisions
A first draft of the book was produced testing all decisions made to date and it was reviewed by the thesis committee. Chiefly, the selection of images, typefaces and typical page layouts were found to function well but the chapter headings, the cover, and some introductory pages were judged to need more refinement.

The use of overlapping type was discouraged as being difficult to understand. It was also suggested that the blends gave a misleading impression of the contents of the book. Color selections were also thought to be a little unclear, not quite in keeping with the subject matter.
It was suggested that color be explored further by trying to match colors to the subject matter. Eventually, a concrete color, a brownish-gray was selected for pairing with the architecture theme. A blue was selected to represent graphic design. Green was selected to pair with environmental graphic design. These shades were deeper than previous pastel selections and they seemed to give more strength to the pages.

Suggestions were also made to review the thickness of some of the rules (see page 28). In some locations, shapes had been added below images, like a shadow, in an attempt to give them added emphasis. These were judged to be distracting and unnecessary and were eliminated.

Many preliminary solutions were then created for the cover and for the divider sheets. A key design dilemma was combining the two fonts chosen, a serif and sans serif, on the cover without appearing to have too many variables in play. A workable solution eventually appeared by using a plus sign in place of the word “and” as the center focus of the cover composition. It took attention away from the differences in the fonts at the same time it gave meaning to their differences (see page 29).

Another difficult design problem was how to distinguish the introduction to the second part of the book about environmental graphic design. Early suggestions had been made that a reader turning to this page should immediately understand that this section was different. The first attempts to respond to this suggestion used many pictures, bright colors and irregular shapes. The page was somewhat distracting and in the end not very revealing about the subject of environmental graphic design.

The design was finally resolved by using a full page image on one half of the spread. This provided some visual relief since most previous pages had multiple, smaller images. Additionally, the image chosen had much symbolic significance. It is an example of environmental graphic design called “The Egg of the Winds” designed by Toyo Ito. It functions as a gateway to Okawabata City. In the book, it also functions as a gateway, to the second part of the book.
Ideation: Color Studies

1 Color systems in the early versions of the book used soft blends of pastel colors.

2 Many different colors were tested, but eventually the pastel shades were rejected because they did not demonstrate a clear enough association with the content.

3 In this iteration, rules symbolizing architecture were colored brownish-grey and rules symbolizing graphic design were blue. Using the blue in the upper band, however, seemed to dominate the page.

4 In this final version, a neutral color was chosen for the upper bands and blue was used on the numbers and the thin rule. The brownish-grey was used for the thick rule. The words in the headlines were green to suggest the main topic of environmental graphic design.
Ideation: Image Selection and Rule Exploration

1. This series is representative of a typical sequence of image selection in the ideation phase. In this first attempt, the images individually fit their respective themes but do not work well together.

2. New selections are made but now the concentration of black and white images creates a large amount of white space on the right that divides the page in half.

3. Black and white images are separated by colored images. When the color of the rules is darkened it becomes apparent that they are creating unintentional, irregular negative shapes.

4. By adding full color top and bottom the irregular shapes are eliminated but a new problem is introduced: how the two colors meet. This version, with the white line in the center, seems somewhat unresolved.

5. Using thinner, rather than thicker rules, is chosen as the best answer. At this point though, attention turns back to how the images fit together and another edit is made.
Ideation: Cover Designs

1. There were many iterations of the cover design. In the early versions the idea of overlapping type is used.

2. Blended colors were another device used in the early stages of development to suggest the erosion of boundaries.

3. When overlapping and blending were judged to be too subtle, some covers tested the other extreme using literal representations of architecture and graphic design and overlapping boundaries.

4. Instead of bringing clarity, the icons added more variables to an already complex typography problem. This layout did however suggest the use of a plus sign.

5. This version returned to the idea of blends, used a plus sign and an ampersand and had four separate type styles. Overly complex, it nonetheless suggested a direction for progress.

6. This version came close to the final outcome, using a plus sign in place of “and” or an ampersand and using a blend only in the color that maps on to environmental graphic design.
Ongoing Evaluations
The thesis process was not entirely linear. Some evaluations occurred simultaneously with the synthesis and ideation phases. Ongoing thesis committee meetings provided helpful feedback on content and layout decisions. Additionally, small group meetings with classmates also offered new insights on organization and layout. From all these sessions decisions were refined.

An Outside Evaluation
Another evaluation, from outside of the academic realm, occurred by taking a copy of the developing book to a potential end-user, a fabricator who works with environmental graphic design. Chuck Finzer, from Empire Graphics, agreed to contribute pictures to the second half of the book. He also provided an informal review at an early stage of its development. He thought that having a copy of this book would be helpful to him in promoting environmental graphic design.

Evaluations by Other Students
Another more formal evaluation came from a presentation of the project to first year graduate students. While the main focus of this presentation was to share the process of developing a thesis project, they nonetheless also offered observations on the design of this specific project in progress. Some ideation concerning the use of the colors and the thickness of the rules were presented and their reactions to the different options helped in the next iteration of the design.

Written Evaluations
The first written evaluations came from comment cards set up at the thesis exhibition in the Bevier Gallery where the book was put on display for about two weeks. The comment cards requested that observers make comments on both the exhibit and on the book. The cards were written so that the observer could simply check a yes or no box, or offer more information if they chose to.

Eleven responses were gathered. All respondents affirmed that they found the subject matter of the book to be of interest and the material clearly organized. Nine of the eleven also affirmed this for the exhibit itself. The other two respondents suggested that the exhibit could have benefited from larger panels or more space, saying the panels seemed a bit too cramped. Five people answered that what they learned from the book and exhibit was the close comparison between architecture and graphic design.
Sample Evaluation Form Used at the Exhibit

**Evaluation and Comments**

1. Did you find the subject matter of interest?
   - Book: [ ] Yes  [ ] No  [ ] Yes  [ ] No
   - Exhibit: [ ] Yes  [ ] No  [ ] Yes  [ ] No

2. Was the organization of material clear?
   - Book: [ ] Yes  [ ] No  [ ] Yes  [ ] No
   - Exhibit: [ ] Yes  [ ] No  [ ] Yes  [ ] No

3. Did you learn anything new?
   - What was this?
   - Book: [ ] Yes  [ ] No  [ ] Yes  [ ] No
   - Exhibit: [ ] Yes  [ ] No  [ ] Yes  [ ] No

4. Was there anything in particular you enjoyed?
   - What was this?
   - Book: [ ] Yes  [ ] No  [ ] Yes  [ ] No
   - Exhibit: [ ] Yes  [ ] No  [ ] Yes  [ ] No

5. Was there anything in particular that you like to see done differently?
   - What was this?
   - Book: [ ] Yes  [ ] No  [ ] Yes  [ ] No
   - Exhibit: [ ] Yes  [ ] No  [ ] Yes  [ ] No

6. Any other comments?

Thank you very much for your help with the development of this work.

Completed evaluation forms may be found in the Appendix (see page 56).
Additional Written Evaluations

At the start of the project, design professionals were identified as a possible target market for this book. With this in mind, evaluations were sought from architects and graphic designers as well as from students and the general public. A more comprehensive evaluation form was written than that used at the gallery, with the hope that individuals, who were reviewing the book on their own, might have more time to respond than those in the gallery setting.

Responses were gathered from four architects and one structural engineer. Three were familiar with the field of environmental graphic design before looking at the book. Two were not. They each preferred a different section of the book; no two answers to this question were alike.

What emerged as a significant pattern was that almost everyone made some comment that confirmed an appreciation for the comparison between graphic design and architecture. In answering what was the most striking similarity observed between architecture and graphic design, one answer was, “that there is an inherent organization within all the graphics and architecture that we see.” Another wrote, “I discovered new linkages.” Another wrote, “how integrated they (the fields) have been, could be.” Still another comment came from a person interested in the idea of “using form to communicate” and this was further qualified as “culturally recognizable form.”

Two respondents made comments that the graphic design of the book could still be pushed farther. One comment was specific to the cover design saying that there was not enough of interest on the cover for someone to understand what was in the book.

The uses of environmental graphic design drew varied responses. Three, respondents, two who picked Commemoration as the most important use, and one other, recognized the emotional potential of environmental graphic design. In the case studies section, the Las Vegas Freemont Street Experience was the example that received the highest average rating for most interesting case study.
Additional Written Evaluations continued

One person in particular seemed to take to heart the book’s message about eroding the boundaries between disciplines. They wrote, “I think this is an extremely rich topic. Personally, I think there is too much separation between architecture, graphics, and industrial design. The questions you’re asking are not easily answered, nor are they questions that will always find broad consensus. These are usually the most interesting questions to ask.”

Three additional responses were received from graphic designers. Their comments were generally positive. Two of the respondents said they would like to have a copy of the book for reference. They all commented that the layout was clean and well organized.

One interesting pattern that emerged in the responses of the graphic designers was that none of them chose to select any one of the uses of environmental graphic design as being more important than the others. All made similar comments that this kind of evaluation would depend on the specifics of the project.

One of the graphic designers echoed comments, received from previous evaluations, that the cover was “not as exciting as the inside of the book.” However, in conversation, another of the designers said she understood why the cover was understated, as a relief from the concentration of images inside. If the project were to continue however, the cover would benefit from additional design consideration.

A sample of one of the evaluation forms used follows (see page 36). The actual completed evaluations appear in the Appendix.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Sample Evaluation Form Given to Representative Members of the Book's Target Audience

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

Background Information

1. Do you work as:
   - ☐ an architect
   - ☐ graphic designer
   - ☐ an environmental graphic designer
   - ☐ design student
   - ☐ in another design field
   - ☐ other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   - ☐ yes  ☐ no

Book Organization

3. Looking at the Table of Contents, is the organization of the book clear?
   - ☐ yes  ☐ no   If no, please explain.

Subject Matter

4. Which part of the book is of most interest to you?
   - ☐ no sections were of interest

Part One

5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   - ☐ yes  ☐ no
   - If yes, what similarity was the most striking to you?

Part Two

6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   - ☐ yes  ☐ no  ☐ no opinion

7. Did you learn something about environmental graphic design?
   - ☐ yes  ☐ no
   - If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   - ☐ to Identify  ☐ to Orient  ☐ to Inform  ☐ to Entertain
   - ☐ to Ornament  ☐ to Persuade  ☐ to Commemorate
   - Please explain why you made this choice.
Case Studies

9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

☐ The US Holocaust Museum
☐ The National School of Theater
☐ Microsoft Prototype Stores
☐ The World of Coca-Cola
☐ The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three

10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?
☐ yes    ☐ no    ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?
☐ yes    ☐ no

General Questions

12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.
☐ yes    ☐ no

13. If you saw this book in a library you would most likely
☐ pass it by
☐ glance through it and return it to the shelf
☐ check it out for further reading
Please explain.

14. Do you have any other comments?
Implementation

Some final revisions were made based on comments received during the evaluation phase. Chiefly these involved issues of consistency. Also, there was still one page with overlapping type, left from the stage when this was being used as a design device. It was suggested this page be modified to match the cover.

Some small scale modifications were suggested regarding typographic issues like ragged type edges, sense breaks and consistency of spacing between images. Other more substantial suggestions, such as "there should be stronger differences between sections," require some distance from the project and a fresh outlook at a later time in order to implement.

To create the prototype book, a document was created using Quark 4.04 page layout program. Images were scanned on an Astra 1200 S scanner at a resolution of 150 dpi. The final prototype was printed on an Epson Stylus Photo EX printer at a resolution of 360 dpi.

A standard page size was chosen, an A4 sheet (8.27 x 11.69 inches), the European standard for letter-sized documents. However, in order to simulate full bleeds in the layouts, which, with the design of vertical reference tabs, occur on about half of all sheets, the pages were printed on 11” x 17” paper. They were then cut down to the A4 size. Pages were hand trimmed and assembled.

The sections of the book were divided across 4 separate Zip disks, roughly one disk for every 25 pages in the book. This could have been condensed somewhat to save memory, however, having some extra space on each disk proved valuable. During the ideation phase, when the location of some pages in the book changed, having some open space allowed for some rearrangements without having to redistribute the entire layout.

The book uses a great many images. Consequently, the main document contains too many previews to fit on a Zip disk along with the material for one quarter of the book. The main document is saved separately on a fifth disk and must be transferred to the hard drive for printing.

Were this project to move on to a further stage of development, it might make sense to consolidate the material using a Jazz disk and drive. Another option would be to reduce the preview settings on the images to the minimum. However, having the full resolution in preview mode has been very helpful during the development stages.
Dissemination

This book was assembled with the intention that it could be a helpful teaching tool in a multi-disciplinary curriculum. Comments by some of those who have seen the prototype suggest that a book like this might find an audience among interested professionals as well.

To take this project on to a further stage of development, it would be helpful to seek advice from the professional organization for environmental graphic design, SEGD. The administrators there have had experience publishing their own books on this subject. They would be likely to have good advice about whether there is any potential interest for this kind of book.

Another option would be to send the prototype book to a publisher to ask for advice and comment on the further development of this project. Even if the comments were negative, it would be a helpful exercise to gain experience for any future book projects.

Another use for this prototype book is that it could form the basis of a course to be taught on this subject. The organization of the chapters could translate into a curriculum structure for a course. The paired comparisons could be used to give students examples and they could be asked to find further correspondences on their own to confirm their understanding of the ideas.

The categories in the second half of the book lend themselves well to becoming topics of firsthand observation. Students could be asked to find and photograph or collect examples of each of the different uses for environmental graphic design. These categories could also lend themselves well to small group projects to create a design solution, such as in wayfinding, or as a memorial, or as entertainment.

Because of the multi-disciplinary nature of the field, this type of course may appeal to a broad range of students in graphic design, architecture, interior design, fine arts, crafts and photography.
Retrospective Evaluation

Format
This project could benefit from additional explorations related to format. In retrospect, the page size is somewhat unwieldy for casual scanning. It is too long to comfortably hold in one hand and scan through the pages with the other. It almost requires that it be laid down flat on a surface in order to be viewed.

Because of the narrowness of the page height, the sizes of some of the images in the comparison sections are smaller than is desirable for complete understanding. Some of the enjoyment of adjacent comparisons between architectural and graphic design examples is lost with the small size of the images.

In retrospect, a squarer format with fewer comparisons per page may have made a much stronger visual impact. This would also more appropriately place the emphasis on the images rather than on the text. While the text is supportive, the main lessons in the book come from the actions of seeing and thinking about the images. A different layout could better support this activity.

One comment that was made in a presentation of the work was that the layouts should have more visual contrast, that the book was very much like a textbook. While the original intention was that the book could be used like a textbook, it could also be developed to be more engaging as an art book. In this way it could serve double duty. It could provide an interesting and engaging format to the casual observer at the same time presenting the substance needed for teaching. If development of the book were to continue, review of the page size and other layout decisions would be an appropriate next step.

Content
A strength of the project is the range of material it covers. The organization of the material was clear to those who evaluated it. The case made for comparison of architecture and graphic design is fairly strong. In most instances, the choice of images clearly supported the ideas being discussed. While most of the ideas presented are not original, this particular organization of them is. By presenting the ideas in this sequence with good, supporting illustrations, new insights were made possible for the reader.

The written content could benefit from additional research. Some of the ideas presented, for instance the information about the derivation of the word 'story' for floors of a building, are from general knowledge but should be substantiated by a research source.
Content continued

There are other sections in the book that depend heavily on quotes and original ideas by others. While these are appropriately credited, the purpose of their inclusion could be more obvious. If the book is intended mainly as a guidebook to lead readers to other sources of information, these quotes and references are appropriate but this intention should be clearly stated somewhere. Perhaps the books referenced should even be listed at the end of each section under a heading such as: "Additional Reading." If, on the other hand, the book is intended to present a more original interpretation of source material, additional thinking and writing is required to make a more coherent, original contribution to this field.

Originally, a longer, more comprehensive conclusion was planned. The purpose of this conclusion would be to explain some of the historical reasons that favor the development of environmental graphic design at this time. It was not possible to complete the research for this conclusion within the established schedule for implementation of the application. However, if this project were to continue to develop, this addition could help satisfy the desire for more original written content.

Additional Material

Time allowing, the second section on environmental graphic design would benefit from the inclusion of more original photographic material. In the section on Commemoration, for instance, many of the photographs were original, based on firsthand observation. Other sections borrow examples from other publications. Some of the projects shown have been used many times, such as the Las Vegas corridor and the Holocaust Museum. While these are good examples, a reader familiar with the field of environmental graphic design would most likely appreciate seeing different, less well-known examples. Were this project to be continued, additional source material should be collected for this section.
In conclusion, this project satisfied several of the goals that were identified in the beginning by the project statement.

The research component of this thesis did analyze the ways in which environmental graphic design is similar to and different from graphic design and architecture. Architecture and graphic design were shown to be similar as objects of vision, conveyors of meaning and recorders of history. Environmental graphic design was demonstrated to be a combination of architecture and graphic design and as such to have many special purposes.

Examples demonstrated how the hybrid field was valuable in identification, orientation, and commemoration of space. Other examples showed how environmental graphic design can be used for the purposes of persuasion, entertainment, and ornamentation. Concluding essays in the book discussed how environmental graphic design adds a dimension of flexibility to architecture and a degree of permanence to graphic design.

On another level, this project provided a valuable educational experience by offering an opportunity to write and design a book. The problem posed allowed a chance for inquiry into three separate design fields. It led to research in visual perception, design history, design theory, and to case studies of architectural constructions and actual printed graphic design pieces.

Additionally, this process has offered practice in writing and organization. Most importantly, it has served as a vehicle for consolidating and practicing a wide range of graphic design skills learned during the Masters program in Graphic Design at RIT.
### Glossary

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>graphic design</td>
<td>The term coined in 1922 by William Addison Dwiggins to describe the activities of an individual bringing structured order and visual form to printed communications. Though named in 1922, the activity itself dates back to the invention of writing. *(from Phillip Meggs, <em>A History of Graphic Design)</em></td>
</tr>
<tr>
<td>environmental graphic design</td>
<td>The planning, design and execution of graphic elements in the built and natural environment. Environmental graphics includes communication systems that identify, direct and inform, and architectural graphics that visually enhance the environment. <em>(from the Society for Environmental Graphic Design)</em>.</td>
</tr>
<tr>
<td>Gestalt</td>
<td>1. a unified physical, psychological, or symbolic configuration having properties that cannot be derived from its parts</td>
</tr>
<tr>
<td>ideation</td>
<td>1. the formation of ideas</td>
</tr>
<tr>
<td>sans serif</td>
<td>without serifs</td>
</tr>
<tr>
<td>semiotics</td>
<td>1. the science dealing with signs or sign language</td>
</tr>
<tr>
<td>semiotics</td>
<td>the study and application of signs, signs being anything and everything that conveys meaning <em>(from Perception and Imaging by Richard Zakia)</em></td>
</tr>
<tr>
<td>semantics</td>
<td>1. <em>Linguistics</em>, The study of the science of meaning in language forms, particularly with regard to its historical change. 2. <em>Logic</em>, the study of the relationships between signs and symbols and what they represent.</td>
</tr>
<tr>
<td>serif</td>
<td>a fine line finishing off the main strokes, as at the top and bottom of m or ending the cross stroke of t</td>
</tr>
<tr>
<td>syntax</td>
<td>the way in which words are put together to form phrases and sentences 2. systematic arrangement spatial problem solving comprising the following processes: decision making, decision executing and information processing <em>(from Wayfinding People, Signs and Architecture, by Paul Arthur and Romedi Passini)</em></td>
</tr>
</tbody>
</table>

Definitions from the American Heritage Dictionary unless noted otherwise.
Bibliography

**Thesis Topics**

**Architecture**

History / Reference
- *A History of Architecture*, Sir Bannister Fletcher
- *A History of Western Architecture*, David Watkin
- *Complexity and Contradiction in Architecture*, Robert Venturi
- *Modernism's History, A Study in Twentieth Century Art and Ideas*, Bernard Smith
- *Sacred Architecture*, A.T. Mann
- *Sacred Geometry*, Nigel Pennick
- *The Old Way of Seeing*, Jonathan Hale
- *Time Stands Still*, Keith Critchlow

**Theory**

- *Meaning in Architecture*, Charles Jencks and George Baird, editors
- *Rethinking Architecture, A Reader in Cultural Theory*, Neil Leach, editor
- *Theory and Design in the First Machine Age*, Reyner Banham
- *Theory and Design in the Second Machine Age*, Martin Pawley
- *Theory and History of Architecture*, Manfredo Tafuri

**Applications**

- *Designing and Planning Environmental Graphics*, Wayne Hunt
- *Experience*, Sean Perkins
- *SEGD Award Publications*
- *Sign Communication. Community Identity*, Sign Communication Publishing
- *Urban Entertainment Graphics*, Wayne Hunt
- *Wayfinding, People, Signs, and Architecture*, Paul Arthur and Romedi Passini
- *You Are Here, Graphics That Direct, Explain and Entertain*, SEGD

**Environmental Graphic Design**

**Graphic Design**

**History**

- *A History of Graphic Design*, Philip Meggs
- *A History of Visual Communication*, Josef Müller-Brockmann
- *Graphic Design from Victorian to Post-Modern*, Seymour Chwast and Stephen Heller, editors
- *Graphic Design in the Mechanical Age*, Maud Lavin, editor

**Theory**

- *Design in the Visual Arts*, Roy R. Behrens
- *Design Through Discovery, The Elements and Principles*, Marjorie Elliott Bevlin
- *Perception and Imaging*, Dr. Richard Zakia
Bibliography continued

General Reference

*The Craft of Research*, Wayne Booth, Gregory Colomb and Joseph M. Williams

Thesis References


Periodicals

Architecture
Architectural Record
Colonial Homes
Graphis
House and Garden
Identity
Print
VM+SD
Appendices

Appendix 1: Thesis Proposal
Appendix 2: Schedule
Appendix 3: Evolution of the Table of Contents
Appendix 4: Evaluation Forms
Appendix 5: The Final Design Application
Graphic Design and Architecture
At Their Intersection

Thesis Problem

This thesis will explore the increasingly important role played by graphic design in architecture. Traditionally thought of as a two-dimensional applied art, graphic design has relevant applications in the design of places. This is sometimes known as environmental graphic design. The premise of this investigation is that by extending graphic design into the world of architecture both disciplines are strengthened. Graphic design in an architectural context benefits from a more long-lasting medium, in material and duration, than its more common forms in print, film or digital media. Architecture, in its turn, gains another way to communicate to an audience, one that is more flexible and changeable than its otherwise static structure would ordinarily permit.

The research component of this thesis will analyze the ways in which environmental graphic design is similar to and different from architecture and two-dimensional graphic design. Research will also show how and why this hybrid is important. It will analyze the ways in which graphic design in the built environment adds value or interest to a place, marks territory, acts as ornament, provides identity, and adds meaning in ways that were not achievable by architecture or graphic design alone. It will identify a wide range of applications where this might be useful.

Proposed Application

The application of this thesis study will be a book about the subject outlined above. This book could be used as a guidebook for teaching about this discipline. It could also be used as a reference for designers and clients considering the incorporation of graphic design in an architectural project.

This application will collect and organize information that is currently scattered, existing in pockets across disciplines and mainly in periodicals. With this collection and analysis of material new insights will be possible that will contribute understanding to the growing field of environmental graphic design.
## Planning Schedule

<table>
<thead>
<tr>
<th>November/December</th>
<th>30</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>08</td>
<td>09</td>
<td>10</td>
<td>11</td>
</tr>
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<td></td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>
|                   |    | break
| January            | 4  | 5 | 6 | 7 | 8 |
|                   | 11 | 12| 13| 14| 15|
|                   | 18 | 19| 20| 21| 22|
| February           | 25 | 26| 27| 28| 29|
|                   | 1  | 2 | 3 | 4 | 5 |
|                   | 8  | 9 | 10| 11| 12|
|                   | 15 | 16| 17| 18| 19|
|                   |    | break
| March              | 8  | 9 | 10| 11| 12|
|                   | 15 | 16| 17| 18| 19|
|                   | 22 | 23| 24| 25| 26|
| April              | 29 | 30| 31| 1 | 2 |
|                   | 5  | 6 | 7 | 8 | 9 |
|                   | 12 | 13| 14| 15| 16|
|                   | 19 | 20| 21| 22| 23|
| May                | 26 | 27| 28| 29| 30|
|                   | 3  | 4 | 5 | 6 | 7 |
|                   | 10 | 11| 12| 13| 14|
|                   | 17 | 18| 19| 20| 21|
|                   |    | graduation
|                   | May 22

- **Research and Outline**
  - Committee meets:
    - November 30: Research review
    - January 4: Connection, outlines, writing
    - February 25: Ideation review
    - March 8: Application review
    - April 29: Exhibit opening
    - May 3: Last review before sign-off

- **Writing**
  - November 30: Committee meets
  - December 14: Committee meets
  - January 4: Committee meets
  - February 25: Committee meets
  - March 8: Committee meets
  - April 29: Committee meets
  - May 3: Committee meets

- **Implementation**
  - November 30: Committee meets
  - December 14: Committee meets
  - January 4: Committee meets
  - February 25: Committee meets
  - March 8: Committee meets
  - April 29: Committee meets
  - May 3: Committee meets
Table of Contents

Introduction
About Architecture and Visual Communication

Part One
Similarities Between Architecture and Visual Communication
  Ways of Seeing
  Perceptual Principles
  Visual Design
  Shared Conventions
Conveyors of Meaning
  Similar Evolution of Forms
  Similar Ideas and Attitudes

Part Two
The Intersection of Architecture and Graphic Design:
Environmental Graphic Design
  Graphic Design Applied to Architecture
  Graphic Design Integral With Architecture
  Architecture as Dimensional Graphic Design
Its Value
  Benefits for Architecture
  Benefits for Graphic Design
  Its Uses
    Identity
    Wayfinding
    Memorials
    Exhibit Design
    Attraction
    Persuasion
Conclusion: Why Its Important Now

Bibliography
Photo Credits
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About Architecture and Graphic Design

Part One
Comparing Architecture and Graphic Design
   Perceptual Principles
   Composition Principles
   Rhetorical Devices
   Shared Conventions
Conveyors of Meaning
   Similar Evolution of Forms
   Similar Ideas and Attitudes

Part Two
The Intersection of Architecture and Graphic Design:
   Environmental Graphic Design
      Graphic Design Applied to Architecture
      Graphic Design Integral With Architecture
      Architecture Influenced by Graphic Design
   Its Value
      Benefits for Architecture
      Benefits for Graphic Design
   Its Uses
      Identity
      Wayfinding
      Memorials
      Exhibit Design
      Attraction
      Persuasion

Part Three:
Conclusion: Why Environmental Graphic Design Is Important Now

Bibliography
Photo Credits
Table of Contents

**Introduction**

**About Architecture and Graphic Design**

**Part 1**

**Comparing Architecture and Graphic Design**

- As Objects of Vision
- Shared Perception Principles
- Shared Composition Principles
- Shared Rhetorical Devices
- Shared Conventions
- As Conveyors of Meaning
- Similar Evolution of Forms
- Similar Ideas and Attitudes

**Part 2**

**Integrating Architecture and Graphic Design:**

**Environmental Graphic Design**

- Some Examples
- Graphic Design Applied to Architecture
- Graphic Design Integral With Architecture
- Architecture Influenced by Graphic Design
- The Value of Environmental Graphic Design
- To Architecture
- To Graphic Design
- Uses for EGD

**Part 3**

**Conclusion**

**Why Environmental Graphic Design Is Important Now**

- Bibliography
- Photo Credits
**Table of Contents**

<table>
<thead>
<tr>
<th>Section</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction About Architecture and Graphic Design</td>
<td></td>
</tr>
<tr>
<td>1 Comparing Architecture and Graphic Design</td>
<td></td>
</tr>
<tr>
<td>As Objects of Vision</td>
<td></td>
</tr>
<tr>
<td>As Conveyors of Meaning</td>
<td></td>
</tr>
<tr>
<td>As Recorders Of History</td>
<td></td>
</tr>
<tr>
<td>2 Integrating Architecture and Graphic Design: Environmental Graphic Design</td>
<td></td>
</tr>
<tr>
<td>3 Understanding the Intersection of Architecture and Graphic Design</td>
<td></td>
</tr>
<tr>
<td>Conclusion</td>
<td></td>
</tr>
<tr>
<td>Bibliography</td>
<td></td>
</tr>
<tr>
<td>Photo Credits</td>
<td></td>
</tr>
</tbody>
</table>
Evaluation and Comments

1. Did you find the subject matter of interest?
   - Yes ☑ No ☐

2. Was the organization of material clear?
   - Yes ☑ No ☐

3. Did you learn anything new?
   - Yes ☑ No ☐

   What was this?
   "The many 'additions' on bridges."

4. Was there anything in particular you enjoyed?
   - Yes ☑ No ☐

   What was this?
   "The variety of kinds of architecture."

5. Was there anything in particular that you like to see done differently?
   - Yes ☑ No ☐

   What was this?

6. Any other comments?

   A lot of work to accomplish this fine result

Thank you very much for your help with the development of this work.

Evaluation and Comments

1. Did you find the subject matter of interest?
   - Yes ☑ No ☐

2. Was the organization of material clear?
   - Yes ☑ No ☐

3. Did you learn anything new?
   - Yes ☑ No ☐

   What was this?

4. Was there anything in particular you enjoyed?
   - Yes ☑ No ☐

   What was this?

5. Was there anything in particular that you like to see done differently?
   - Yes ☑ No ☐

   What was this?

6. Any other comments?

   "Admired at the skill organization and accident"

Thank you very much for your help with the development of this work.
Evaluation and Comments

1. Did you find the subject matter of interest?  
   - Yes ☑ No ☐

2. Was the organization of material clear?  
   - Yes ☑ No ☐

3. Did you learn anything new?  
   - Yes ☑ No ☐

4. Was there anything in particular you enjoyed?  
   - Yes ☑ No ☐

5. Was there anything in particular that you like to see done differently?  
   - Yes ☑ No ☐

Thank you very much for your help with the development of this work.
Evaluation and Comments

1. Did you find the subject matter of interest?
   - Yes □ No □

2. Was the organization of material clear?
   - Yes □ No □

3. Did you learn anything new?
   - Yes □ No □
   - What was this? Clearer relationship between graphic environmental design and architecture.

4. Was there anything in particular you enjoyed?
   - Yes □ No □

5. Was there anything in particular that you like to see done differently?
   - Yes □ No □
   - What was this?

6. Any other comments?
   - I think your show exhibits the most application part of the process which is very important. Good job.

Thank you very much for your help with the development of this work.
Evaluation and Comments

1. Did you find the subject matter of interest?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

2. Was the organization of material clear?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

3. Did you learn anything new?
   What was this?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

4. Was there anything in particular you enjoyed?
   What was this?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

5. Was there anything in particular that you like to see done differently?
   What was this?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

6. Any other comments?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

---

Thank you very much for your help with the development of this work.

Evaluation and Comments

1. Did you find the subject matter of interest?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

2. Was the organization of material clear?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

3. Did you learn anything new?
   What was this?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

4. Was there anything in particular you enjoyed?
   What was this?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

5. Was there anything in particular that you like to see done differently?
   What was this?
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

6. Any other comments?
   I'd like a copy of this book!
   - Book: Yes □ No □
   - Exhibit: Yes □ No □

---

Thank you very much for your help with the development of this work.
Evaluation and Comments

1. Did you find the subject matter of interest?
   - Yes ☑ No □

2. Was the organization of material clear?
   - Yes ☑ No □

3. Did you learn anything new?
   What was this?
   - Yes ☑ No □

4. Was there anything in particular you enjoyed?
   What was this?
   - Yes ☑ No □

5. Was there anything in particular that you like to see done differently?
   What was this?
   - Yes ☑ No □

6. Any other comments?

   - Nothing to grab your attention for exhibit
   - Nice stand
   - Maybe color or larger print outs

Thank you very much for your help with the development of this work.
Evaluation and Comments

1. Did you find the subject matter of interest?  
   
   Book  Exhibit
   [Yes] [No]  [Yes] [No]

2. Was the organization of material clear?  
   
   Book  Exhibit
   [Yes] [No]  [Yes] [No]

3. Did you learn anything new?  
   What was this?
   
   Book  Exhibit
   [Yes] [No]  [Yes] [No]

4. Was there anything in particular you enjoyed?  
   What was this?
   
   Book  Exhibit
   [Yes] [No]  [Yes] [No]

5. Was there anything in particular that you like to see done differently?
   What was this?
   
   Book  Exhibit
   [Yes] [No]  [Yes] [No]

6. Any other comments?  
   
   Book  Exhibit
   [Yes] [No]  [Yes] [No]

Thank you very much for your help with the development of this work.
Evaluation and Review Comments for Architecture and Graphic Design at Their Intersection

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

Background Information
1. Do you work as:
   - [ ] an architect
   - [ ] graphic designer
   - [ ] an environmental graphic designer
   - [ ] design student
   - [ ] in another design field

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   - [ ] yes
   - [ ] no

Book Organization
3. Looking at the Table of Contents, is the organization of the book clear?
   - [ ] yes
   - [ ] no
   If no, please explain.

Subject Matter
4. Which part of the book is of most interest to you? "Mediocrity in Graphic Design" helps set the stage for the final section. In some ways, this section is the most crucial to the argument. If no sections were of interest, please explain.

Part One
5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   - [ ] yes
   - [ ] no
   If yes, what similarity was the most striking to you?

Part Two
6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   - [ ] yes
   - [ ] no
   - [ ] no opinion

7. Did you learn something about environmental graphic design?
   - [ ] yes
   - [ ] no
   If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   - [ ] to Identify
   - [ ] to Orient
   - [ ] to Inform
   - [ ] to Entertain
   - [ ] to Ornament
   - [ ] to Persuade
   - [ ] to Commemorate

Please explain why you made this choice.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Evaluation continued

Case Studies  9. Please indicate your level of interest for the case studies shown on
pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for
least interesting, or check one of the boxes below the list.

☐ The US Holocaust Museum
☐ The National School of Theater
☐ Microsoft Prototype Stores
☐ The World of Coca-Cola
☐ The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three  10. Do you agree with the conclusions reached in Part Three,
that graphic design can make a valuable contribution to architecture
and that architecture can make a valuable contribution to
graphic design?

☐ yes  ☐ no  ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90,
contribute to your understanding of the subject?

☐ yes  ☐ no  ☐ They did support the argument but I didn't
discuss comprehensively. I think image alone

General Questions  12. Did the graphic design decisions made in the design of this book,
(for instance, color coding, use of rules, type sizes, layout decisions)
support your understanding of the material? Please explain.

☐ yes  ☐ no  ☐ graphics were good but could have gone further
(ie. stronger differences between sections)

13. If you saw this book in a library you would most likely
☐ pass it by
☐ glance through it and return it to the shelf
☐ check it out for further reading

Please explain.

I think the subject is quite nice & challenge
early directed ideas about what is relevant,

14. Do you have any other comments?  ☐ design & graphic design

Thank you again for your time and your assistance with this project.
I think this is an extremely rich topic. Personally, I think that there is too much separation between architecture, graphics, and industrial design. The questions you're asking are not easily answered, nor are they questions that will always lead to broad consensus. These are usually the most interesting questions to ask.

Some things/people to look at:

- Ken Khoo/Red & Bruce Mau - S, M, L, XL
- Robert Venturi - his most recent book (I can't remember the title); it has a lot to do with what you're telling about.
- Robert Negroponte - Thinking Digitally. He used to head the Media Lab @ MIT. He is an academic that has become one of the digital age's gurus. He also works (helped begin) Wired magazine.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

Background Information 1. Do you work as:
- [ ] an architect
- [ ] graphic designer
- [ ] an environmental graphic designer
- [ ] design student
- [ ] in another design field
- [x] other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
- [ ] yes
- [ ] no

Book Organization 3. Looking at the Table of Contents, is the organization of the book clear?
- [x] yes
- [ ] no
If no, please explain.

Subject Matter 4. Which part of the book is of most interest to you?

Integrating Arch + Graphic Design

- [ ] no sections were of interest

Part One 5. In reviewing this section, did you recognize similarities between architecture and graphic design?
- [ ] yes
- [ ] no
If yes, what similarity was the most striking to you?

Part Two 6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
- [x] yes
- [ ] no
- [ ] no opinion

7. Did you learn something about environmental graphic design?
- [x] yes
- [ ] no
If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
- [ ] to Identify
- [ ] to Orient
- [ ] to Inform
- [ ] to Entertain
- [ ] to Ornament
- [ ] to Persuade
- [ ] to Commemorate
Please explain why you made this choice.

It makes the subject have more meaning.
Evaluation continued

Case Studies 9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

☐ The US Holocaust Museum
☐ The National School of Theater
☐ Microsoft Prototype Stores
☐ The World of Coca-Cola
☐ The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three 10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?
☐ yes  ☐ no  ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?
☐ yes  ☐ no

General Questions 12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.
☐ yes  ☐ no

13. If you saw this book in a library you would most likely
☐ pass it by
☐ glance through it and return it to the shelf
☐ check it out for further reading

Please explain.  
I found it interesting, but a little over my head.

14. Do you have any other comments?

Thank you again for your time and your assistance with this project.
Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

**Background Information**

1. Do you work as:
   - [ ] an architect
   - [ ] graphic designer
   - [ ] an environmental graphic designer
   - [x] design student
   - [ ] in another design field
   - [ ] other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   - [ ] yes
   - [x] no

**Book Organization**

3. Looking at the Table of Contents, is the organization of the book clear?
   - [x] yes
   - [ ] no
   If no, please explain.

**Subject Matter**

4. Which part of the book is of most interest to you?
   - [ ] no sections were of interest
   - [ ] Intersection of Architecture and Graphic Design

5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   - [x] yes
   - [ ] no
   If yes, what similarity was the most striking to you?

**Part One**

6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   - [ ] yes
   - [ ] no
   - [x] no opinion

7. Did you learn something about environmental graphic design?
   - [ ] yes
   - [ ] no
   If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   - [x] to Identify
   - [ ] to Orient
   - [ ] to Inform
   - [ ] to Entertain
   - [ ] to Ornament
   - [ ] to Persuade
   - [ ] to Commemorate
   Please explain why you made this choice.
   [ ] This leads to all the other uses
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Evaluation continued

Case Studies
9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

☐ 2 The US Holocaust Museum
☐ 3 The National School of Theater
☐ 2 Microsoft Prototype Stores
☐ 3 The World of Coca-Cola
☐ 1 The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three
10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?
☐ yes ☐ no ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?
☐ yes ☐ no

General Questions
12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.
☐ yes ☐ no

13. If you saw this book in a library you would most likely
☐ pass it by
☐ glance through it and return it to the shelf
☐ check it out for further reading
Please explain.
It has an intriguing title but the material is beyond my years.

14. Do you have any other comments?
none.

Thank you again for your time and your assistance with this project.
Evaluation and Review Comments for Architecture and Graphic Design at Their Intersection

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

Background Information

1. Do you work as:
   □ an architect
   □ graphic designer
   □ an environmental graphic designer
   □ design student
   □ in another design field
   □ other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   □ yes  □ no

Book Organization

3. Looking at the Table of Contents, is the organization of the book clear?
   □ yes  □ no  If no, please explain.

Subject Matter

4. Which part of the book is of most interest to you?
   "Integrating Architecture + graphic design"
   □ no sections were of interest

Part One

5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   □ yes  □ no
   If yes, what similarity was the most striking to you?

Part Two

6. Do you agree with the book’s premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   □ yes  □ no  □ no opinion

7. Did you learn something about environmental graphic design?
   □ yes  □ no
   If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   □ to Identify  □ to Orient  □ to Inform  □ to Entertain
   □ to Ornament  □ to Persuade  □ to Commemorate
   Please explain why you made this choice.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Evaluation continued

Case Studies

9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

1. The US Holocaust Museum
2. The National School of Theater
3. Microsoft Prototype Stores
4. The World of Coca-Cola
5. The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three

10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?

☒ yes  ☐ no  ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?

☒ yes  ☐ no

General Questions

12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.

☒ yes  ☐ no

Very simple layout, very easy to follow

13. If you saw this book in a library you would most likely

☐ pass it by
☐ glance through it and return it to the shelf
☒ check it out for further reading

Please explain.

14. Do you have any other comments?

The selection of example art + architecture must have been a painstaking effort, but the results are very good.

Thank you again for your time and your assistance with this project.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

Background Information
1. Do you work as:
   - [x] an architect
   - [ ] graphic designer
   - [ ] an environmental graphic designer
   - [ ] design student
   - [ ] in another design field
   - [ ] other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   - [x] yes  [ ] no

Book Organization
3. Looking at the Table of Contents, is the organization of the book clear?
   - [x] yes  [ ] no  If no, please explain.

Subject Matter
4. Which part of the book is of most interest to you?
   - [ ] the entire book
   - [ ] subject matter
   - [ ] graphic presentation
   - [ ] no sections were of interest

Part One
5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   - [x] yes  [ ] no
   - If yes, what similarity was the most striking to you?

6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   - [x] yes  [ ] no  [ ] no opinion

7. Did you learn something about environmental graphic design?
   - [x] yes  [ ] no
   - If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   - [ ] to identify  [ ] to orient  [ ] to inform  [ ] to entertain
   - [ ] to ornament  [ ] to persuade  [ ] to commemorate
   - Please explain why you made this choice.

   - [ ] all are valid  [ ] of equal importance
   - in the built environment
Evaluation and Review Comments  
for Architecture and Graphic Design at Their Intersection

Evaluation continued

Case Studies 9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

- [ ] The US Holocaust Museum
- [ ] The National School of Theater
- [ ] Microsoft Prototype Stores
- [ ] The World of Coca-Cola
- [ ] The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three 10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?

☐ yes  ☐ no  ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?

☐ yes  ☐ no

General Questions 12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.

☐ yes  ☐ no

VISUALLY, A MARVELOUS LITTLE BOOK.

13. If you saw this book in a library you would most likely
☐ pass it by
☐ glance through it and return it to the shelf
☐ check it out for further reading

Please explain.

AN OBVIOUS QUICK READ, BEAUTIFULLY PRESENTED ON A SUBJECT OF PERSONAL INTEREST.

14. Do you have any other comments?

VERy IMPRESSIVE!!

Thank you again for your time and your assistance with this project.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

Background Information
1. Do you work as:
   - [ ] an architect
   - [ ] graphic designer
   - [ ] an environmental graphic designer
   - [ ] design student
   - [ ] in another design field
   - [ ] other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   - [ ] yes
   - [ ] no

Book Organization
3. Looking at the Table of Contents, is the organization of the book clear?
   - [ ] yes
   - [ ] no
   If no, please explain.

Subject Matter
4. Which part of the book is of most interest to you?
   - [ ] no sections were of interest

Part One
5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   - [ ] yes
   - [ ] no
   If yes, what similarity was the most striking to you?

Part Two
6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   - [ ] yes
   - [ ] no
   - [ ] no opinion

7. Did you learn something about environmental graphic design?
   - [ ] yes
   - [ ] no
   If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   - [ ] to Identify
   - [ ] to Orient
   - [ ] to Inform
   - [ ] to Entertain
   - [ ] to Ornament
   - [ ] to Persuade
   - [ ] to Commemorate
   Please explain why you made this choice.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Evaluation continued

Case Studies 9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

4 The US Holocaust Museum
4 The National School of Theater
2 Microsoft Prototype Stores
3 The World of Coca-Cola
2 The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three 10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?
☐ yes ☐ no ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?
☐ yes ☐ no

General Questions 12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.
☐ yes ☐ no

13. If you saw this book in a library you would most likely
☐ pass it by
☐ glance through it and return it to the shelf
☐ check it out for further reading
Please explain.

14. Do you have any other comments?

Thank you again for your time and your assistance with this project.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

**Background Information**

1. Do you work as:
   - ☑ an architect
   - ☐ graphic designer
   - ☐ an environmental graphic designer
   - ☐ design student
   - ☐ in another design field
   - ☐ other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   - ☑ yes
   - ☐ no

**Book Organization**

3. Looking at the Table of Contents, is the organization of the book clear?
   - ☑ yes
   - ☐ no
   If no, please explain.

**Subject Matter**

4. Which part of the book is of most interest to you?
   - ☑ Companion
   - ☐ A / A D as Object of Vision
   - ☐ no sections were of interest

5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   - ☑ yes
   - ☐ no
   If yes, what similarity was the most striking to you?
   - ☑ how integrated they have been, could be
   - ☐ Part One

6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   - ☑ yes
   - ☐ no
   - ☐ no opinion

7. Did you learn something about environmental graphic design?
   - ☑ yes
   - ☐ no
   If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   - ☑ to Identify
   - ☐ to Orient
   - ☐ to Inform
   - ☐ to Entertain
   - ☐ to Ornament
   - ☐ to Persuade
   - ☐ to Commemorate
   Please explain why you made this choice.
   - ☑ Emotion comes first, if successful
   - ☐ the rest follow
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Evaluation continued

Case Studies 9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

☐ The US Holocaust Museum
☐ The National School of Theater
☐ Microsoft Prototype Stores
☐ The World of Coca-Cola
☐ The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three 10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?
☐ yes ☐ no ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?
☐ yes ☐ no

General Questions 12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.
☐ yes ☐ no

13. If you saw this book in a library you would most likely
☐ pass it by
☐ glance through it and return it to the shelf
☐ check it out for further reading
Please explain.

14. Do you have any other comments? Examples in the book.
This time I have spent looking at the book will make me look at architecture in a new way.
Thank you again for your time and your assistance with this project.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

Background Information 1. Do you work as:
☐ an architect
☒ graphic designer
☐ an environmental graphic designer
☐ design student
☐ in another design field
☐ other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
☒ yes ☐ no

Book Organization 3. Looking at the Table of Contents, is the organization of the book clear?
☒ yes ☐ no If no, please explain.

Subject Matter 4. Which part of the book is of most interest to you?
[The whole book is fascinating.]
☐ no sections were of interest

5. In reviewing this section, did you recognize similarities between architecture and graphic design?
☒ yes ☐ no
If yes, what similarity was the most striking to you?
[The whole book is fascinating.]

6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
☒ yes ☐ no ☐ no opinion

7. Did you learn something about environmental graphic design?
☒ yes ☐ no
If yes, what did you learn?
[That there is good and bad in both fields and I think it will remain so because of human nature.]

8. Which of the uses of environmental graphic design do you believe is the most important?
☒ to Identify ☐ to Orient ☐ to Inform ☐ to Entertain
☐ to Ornament ☐ to Persuade ☐ to Commemorate

Please explain why you made this choice.
[The whole book is fascinating.]

Page 1 of 2
Case Studies  
9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

☐ The US Holocaust Museum  
☐ The National School of Theater  
☐ Microsoft Prototype Stores  
☐ The World of Coca-Cola  
☐ The Fremont Street Experience

☐ all were equally interesting to me  
☐ none were interesting to me

Part Three  
10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?

☐ yes  ☐ no  ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?

☐ yes  ☐ no

General Questions  
12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.

☐ yes  ☐ no

visual organization/clean/readable/use of space

13. If you saw this book in a library you would most likely

☐ pass it by  
☐ glance through it and return it to the shelf  
☐ check it out for further reading

Please explain.

depending on time restrictions

14. Do you have any other comments?

I think this would make a great publication for a reference and could help to put words to aid in selling or educating in design or architectural.

Thank you again for your time and your assistance with this project.
Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

**Evaluation and Review Comments**

**for Architecture and Graphic Design at Their Intersection**

Background Information

1. Do you work as:
   - [ ] an architect
   - [x] graphic designer
   - [ ] an environmental graphic designer
   - [ ] design student
   - [ ] in another design field
   - [ ] other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   - [x] yes
   - [ ] no

Book Organization

3. Looking at the Table of Contents, is the organization of the book clear?
   - [x] yes
   - [ ] no
   If no, please explain.

Subject Matter

4. Which part of the book is of most interest to you?
   - [ ] reviewing
   - [ ] environmental graphic design

5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   - [ ] yes
   - [ ] no
   If yes, what similarity was the most striking to you?

Part One

6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   - [x] yes
   - [ ] no
   - [ ] no opinion

7. Did you learn something about environmental graphic design?
   - [ ] yes
   - [ ] no
   If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   - [ ] to Identify
   - [ ] to Orient
   - [ ] to Inform
   - [ ] to Entertain
   - [ ] to Ornament
   - [ ] to Persuade
   - [ ] to Commemorate
   Please explain why you made this choice.

   depends on the criteria
Case Studies
9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

☐ The US Holocaust Museum
☐ The National School of Theater
☐ Microsoft Prototype Stores
☐ The World of Coca-Cola
☐ The Fremont Street Experience

☐ all were equally interesting to me
☐ none were interesting to me

Part Three
10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?

☐ yes  ☐ no  ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?

☐ yes  ☐ no

General Questions
12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.

☐ yes  ☐ no

13. If you saw this book in a library you would most likely

☐ pass it by
☐ glance through it and return it to the shelf
☒ check it out for further reading

Please explain.

14. Do you have any other comments?

Thank you again for your time and your assistance with this project.
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Thank you for taking time to review this book. Your comments are highly valued. They will contribute to the final refinements of this book. They will also be used as part of the documentation of this thesis project. It may take about ten minutes to answer these questions.

Background Information
1. Do you work as:
   - ☐ an architect
   - ☑ graphic designer
   - ☐ an environmental graphic designer
   - ☐ design student
   - ☐ in another design field
   - ☐ other

2. Previous to reviewing this work, were you familiar with the field of environmental graphic design?
   - ☑ yes  ☐ no

Book Organization
3. Looking at the Table of Contents, is the organization of the book clear?
   - ☑ yes  ☐ no  If no, please explain.

Subject Matter
4. Which part of the book is of most interest to you?
   - ☑ I like comparing architecture & graphics visually
   - ☐ no sections were of interest

Part One
5. In reviewing this section, did you recognize similarities between architecture and graphic design?
   - ☑ yes  ☐ no
   - If yes, what similarity was the most striking to you?
   - char[3 pq 21 - 24]

Part Two
6. Do you agree with the book's premise that environmental graphic design incorporates aspects of both architecture and graphic design?
   - ☑ yes  ☐ no  ☐ no opinion

7. Did you learn something about environmental graphic design?
   - ☑ yes  ☐ no
   - If yes, what did you learn?

8. Which of the uses of environmental graphic design do you believe is the most important?
   - ☐ to Identify  ☐ to Orient  ☐ to Inform  ☐ to Entertain
   - ☐ to Ornament  ☐ to Persuade  ☐ to Commemorate
   - Please explain why you made this choice.

depends on the project
Evaluation and Review Comments
for Architecture and Graphic Design at Their Intersection

Evaluation continued

Case Studies 9. Please indicate your level of interest for the case studies shown on pages 73-82, on a scale of 1 to 5. Use 1 for most interesting and 5 for least interesting, or check one of the boxes below the list.

<table>
<thead>
<tr>
<th>Case Study</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>The US Holocaust Museum</td>
<td>4</td>
</tr>
<tr>
<td>The National School of Theater</td>
<td>5</td>
</tr>
<tr>
<td>Microsoft Prototype Stores</td>
<td>2</td>
</tr>
<tr>
<td>The World of Coca-Cola</td>
<td>3</td>
</tr>
<tr>
<td>The Fremont Street Experience</td>
<td>1</td>
</tr>
</tbody>
</table>

☐ all were equally interesting to me
☐ none were interesting to me

Part Three 10. Do you agree with the conclusions reached in Part Three, that graphic design can make a valuable contribution to architecture and that architecture can make a valuable contribution to graphic design?

☐ yes  ☑ no  ☐ no opinion

11. Did the examples that follow this conclusion, on pages 85-90, contribute to your understanding of the subject?

☐ yes  ☑ no

General Questions 12. Did the graphic design decisions made in the design of this book, (for instance, color coding, use of rules, type sizes, layout decisions) support your understanding of the material? Please explain.

☑ yes  ☐ no

13. If you saw this book in a library you would most likely
☐ pass it by
☐ glance through it and return it to the shelf
☑ check it out for further reading

Please explain.

I would like to own it

14. Do you have any other comments?

Very interesting, good review of graphic principals

Thank you again for your time and your assistance with this project.

G a l a t o f w o r k ! ! !
Graphic Design

Architecture

At Their Intersection
Acknowledgements and Thanks To

my classmates and thesis committee
including Professor Houghton Wetherald
whose lectures inspired connections

and especially to my parents
Mae and Joseph Kaminski
whose love of learning
inspired me to try

and most of all to my husband
Richard Towner
without whose love and encouragement
I never would have finished
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1. Introduction  
   About Architecture and Graphic Design 8

2. Comparing Architecture and Graphic Design  
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3. Integrating Architecture and Graphic Design  
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4. Understanding the Intersection of Architecture and Graphic Design  
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**Graphic Design**

is the process of visually communicating through printed, environmental and digital presentations of information and ideas. Graphic Designers develop creative concepts that visually order words (typography), images and other forms to shape and express messages that inform and engage intended audiences.

Rochester Institute of Technology
School of Design Handbook

---

**Environmental Graphic Design**

The words graphic designer, architect, or industrial designer design and execution stick in my throat, of graphic elements giving me a sense of limitation, in the built environment of specialization within the specialty, Environmental graphics of a relationship to society includes communication systems and form itself that is unsatisfactory that identify, direct and inform, and incomplete.

and architectural graphics

This inadequate set of terms that visually enhance the environment to describe an active life Society for Environmental Graphic Design reveals only partially the still undefined nature of the designer.

*Alvin Lustig*

---

**Architecture**

the art and science of designing and erecting buildings.

American Heritage Dictionary

Architecture...which is the synthesis of the fine arts, the commune of all the crafts. As the pigments are but the vehicle of painting, so is building but the vehicle of architecture, which is the thought behind form, embodied and realized for the purpose of its manifestation and transmission. Architecture, then, interpenetrates building, not for satisfaction of the simple needs of the body, but the complex ones of the intellect. I do not mean that we can thus distinguish between architecture and building, in those qualities in which they meet and overlap, but that in the sum and polarity of them all, these point to the response of future thought, those to the satisfaction of present need; and so, although no hut or mound, however early or rude, but had something added to it for thought’s sake, yet architecture and building are quite clear and distinct as ideas the soul and the body.

William Lethaby
It has been recommended to me that this book should begin with my own definitions, of graphic design, architecture and environmental graphic design. For me, this task is more difficult than the entire remainder of the project. I find, like Alvin Lustig before me, that the definitions tend to stick in my throat. Though their intention is to clarify and explain, their nature is also to bound and limit.

The main reason for assembling this collection of images and ideas into a book is to break limits, to extend boundaries, to blur definitions. Understanding though, that before attempting to break new ground, I must share with readers a foundation from which to begin, I offer the series of definitions on the facing page.

A substantial part of this book is about aspects of vision. Our vision is stereoscopic. We see from two points of view. In a similar manner, some of the definitions presented at left are factual and concise while others are inspirational and somewhat romantic in view. I leave it to the reader to choose which they favor. For the purposes of this book, either, or all will serve.

The main subject of this book is the in-between field of environmental graphic design, an unwieldy and not entirely descriptive name. I have chosen to examine this field as a hybrid of graphic design and architecture. This perspective itself is not entirely accurate because environmental graphic design also includes aspects of landscape design, lighting design, urban planning, fine arts, manufacturing and marketing among others. While it is predominately a visual design field, some projects engage not only the sense of sight but of touch, hearing, and even on rare occasions, as in the Shiru-Ku Road Pocket Park, the sense of smell. I am attracted to this field precisely because it defies boundaries.

In the definitions at left, environmental graphic design is the only one without a twin definition. To complete the system, I offer this observation from Ernst Bloch:

We also take on the form of our surroundings. Not only does the man make his world, but the world makes the man. Homo faber and also homo fabricatus—both are equally true; they are dialectically interrelated...the manner in which objects fill a space generally reflects the manner of those who are served by them.

Environmental graphic design is in some sense a mirror of ourselves. And, as a purely personal definition, I offer this book.
**Introduction**

**About Architecture and Graphic Design**

This book explores the relationship between two important design disciplines: architecture and graphic design. On the surface these two fields may not appear to have much in common. Architecture at its most basic is about shelter. Graphic design at its most basic is about communication. Architecture is about experiencing a space over time. Graphic design, or to use Josef Müller-Brockmann's term for it, visual communication, is about understanding ideas.

Yet the combination of these two apparently unrelated disciplines can be quite powerful. The result is a space with meaning, a place with a message, with a story, that can be communicated over and over across time.

Incorporating graphic design into architecture becomes another way to broadcast information. Those who occupy a given place at a given time are exposed to a calculated message. Consider the hieroglyphics on the tombs in Egypt, pictures in stained glass at cathedrals such as Chartres, or the contemporary example of the NBC live telecasts on gigantic screens attached to the outside of a building in New York City. Each of these tells stories to observers, stories that gain added impact from their monumental surroundings.

Putting messages on buildings can become a way to unite people by creating common experience. Consider the dropping ball at Times Square on New Year's Eve, the digital numbers that count down to the millennium on the Eiffel Tower, the well-known inscription at the Statue of Liberty. Because messages are not an important part of every building, their occurrence attaches significance to those places that have this added purpose. For historians and anthropologists, it becomes a clue to other aspects of the culture. What message is given? What audience is it intended for? Why put it on this building? What is the purpose of the communication?

With the belief that the combination of architecture and graphic design is both useful and significant, this book seeks to interpret its significance by exploring the common ground of its component parts. The first part of the book makes direct comparisons between the two fields. Both disciplines originate as visual experience. Some common aspects of seeing and perceiving in both are shown. Both disciplines offer ways to communicate messages, for graphic design this is its primary function. There are examples that demonstrate some shared characteristics of meaning. A third section shows how both have recorded similar ideas through history.

The second part of the book deals with the results of the union of the two disciplines, which shall be identified here as environmental graphic design. Some uses of environmental graphic design are explored in detail with examples shown to demonstrate how environmental graphic design is used to identify, orient, entertain, ornament, persuade, commemorate and inform. Five case studies follow which highlight some strong examples of environmental graphic design and also serve to demonstrate the diversity of the work.

In the third section of the book, there is a comparison of a range of environmental graphic design projects, and a way to characterize them. Also in this section, conclusions are drawn about the relevance of this work in the design world today.
Comparing Architecture and Graphic Design
As Objects of Vision

Perceptual Principles

The disciplines of architecture and graphic design are both experienced predominately through the sense of sight. Design in both fields must respect similar conventions that are based on the properties of vision. The perception of a viewer for either architecture or graphic design is similarly subject to the amount of light in which the object will be seen, the distance between the object and the viewer, and the degrees of similarity or contrast in what is seen in the field of vision, among other variables.

But vision is not a purely physical sensation. Seeing is also a function of the brain. What we see is what our brains interpret from what is within the field of vision. By understanding some of the properties of vision, including some of the biases of our perception, designers in both fields can gain a greater appreciation for how their final product may be interpreted.

While the properties will differ in some degree because the products of graphic design are typically flat and architecture has characteristics of depth, volume, mass and shadow, there are similarities worthy of attention. Both fields typically deal with parts that are organized to form a whole. By understanding general principles of
organization of parts, designers can control and strengthen the visual impression of their work.

**Gestalt Principles of Perception**

In the book, *Design in the Visual Arts*, Roy Behrens tells the story of Christian von Ehrenfels, who, in 1890, wrote an innovative paper about grouping principles. Ehrenfels challenged a then popular psychological theory called atomism. Atomism held that individual items had absolute qualities that were independent of their context. To refute this, Ehrenfels submitted a simple example, a twelve-tone melody played in two different keys. The melody was recognizable in either key although none of the notes were the same. His point was that it was the composition of the pieces rather than the qualities of each individual note that was recognized. He called this principle Gestalt. This is a German word meaning an arrangement that can survive alteration of individual parts.

Max Wertheimer continued the work of Ehrenfels, researching the application of his principles as they applied to vision. His writings, published in 1912, about unit forming factors provided a vocabulary for understanding our conscious and unconscious choices about visual arrangements. These principles can be of use in making decisions about compositions in both graphic design and architecture.

**Some Reservations**

The Gestalt theories had great influence for about 50 years. Today, they are considered with some reservation. Some of their conclusions are now thought to have gone too far. In the book, *Perceptual Organization: An Overview*, by James R. Pomerantz and Michael Kubovy, the work of the early Gestalt theorists is reconsidered.

One controversial aspect of their work dealt with the concept of Pragnanz, that is, that by following the rules of good Gestalt one could create good forms. Today, however, their claims regarding goodness are said to be the result of circular reasoning and are not wholly verifiable.

Another conclusion Gestalt psychologists reached was that the mind prefers the simplest arrangement of parts. But tests to evaluate this concept raised new questions about the context of the figures being judged. The Gestalt method of demonstration was also criticized, as well as the reliance on predominantly two dimensional figures to prove more universal concepts.

The aphorism, "the whole is greater than the sum of its parts" is commonly attributed to Gestalt theorists. Even this is under reconsideration as some researchers believe this is a popular misconception of their true intention, that the whole is perceived first and differently than its composite parts. Either way, many of the ideas of Gestalt were compelling and found their way into the mainstream of understanding about visual perception.

The reservations about the conclusions that they drew notwithstanding, Gestalt psychologists' observations about perception are still highly regarded. Their work helped provide a common vocabulary for some frequently observed visual phenomenon. What follows are examples chosen from the fields of both graphic design and architecture to illustrate some principles the Gestalt researchers studied.
Comparing Architecture and Graphic Design As Objects of Vision

Figure and Ground
In The Inquisitive Eye, Mark Fineman describes how in 1915, Edgar Rubin, a Gestalt psychologist, made the observation that when we see, we tend to perceive some portions of what we see as a predominant figure and the remainder as ground. In other words, we typically perceive certain shapes in a two dimensional picture, to be in front of others.

The Gestalt psychologists discovered further that some compositions have ambiguous figure ground relationships. In these cases, one may alternatively comprehend parts of a composition as figure and then ground, switching viewpoints back and forth. This phenomenon is put to use in design as a way to slow down the eye and arrest the attention of a viewer. At its most sophisticated, it can be used to add an additional layer of meaning to a composition.

The principles of ambiguous figure and ground occur in two dimensional design because the eye perceives conflicting cues about the depth of the objects being perceived. In architecture there is actual depth so occasions of ambiguous figure ground relationships are somewhat less common. However, it was the ambiguous figure ground relationships on the walls of the Alhambra that inspired the ambiguous drawings of M.C. Escher.

In most cases, for architecture, the idea of figure ground relationships should be interpreted more loosely. Rather than a question of which object is in front of another, in architecture we question which element is predominant. At Notre Dame, the recesses are the focal points of the composition and the walls are background. In Louis Sullivan's buildings with elaborate terra cotta detailing, the wall and openings compete equally for attention. Sullivan uses ornament that, like that at the Alhambra, holds the eyes' attention tracing first one pattern then another.

Another interpretation of the concept of figure ground in architecture comes from looking at actual masses and voids and the relationship of inside to outside. Typically, the building reads as figure and the outside as ground. In the New Canaan Glass House, Philip Johnson turns everything around, making the outside the feature and the house nearly transparent.
Sullivan's complex ornamentation tests the concepts of figure and ground relationships.

Complex figure ground relationships cover the wall surfaces at the Alhambra, Granada, Spain.

The Glass House, New Canaan, Connecticut

Notre Dame, Paris
Comparing Architecture and Graphic Design As Objects of Vision

Shared Contours
Related to the idea of alternating figure and ground is the technique of the shared contour. In this case, the boundary between the figure and ground is sometimes perceived to be alternatively part of one thing and then another. Sometimes, it may seem to disappear entirely into both adjacent figures.

In graphic design this is another technique to add extra meaning. Frequently letter forms share contours with symbolic objects to add impact. Used another way, two objects may share contours to give multiple meanings.

In architecture, shared contours can create ambiguous meanings that lend complexity to otherwise conventional forms. Because of long repeated tradition some forms may no longer hold great interest to a viewer. They are accepted as background and perhaps go almost unnoticed. Employing a shared contour between two otherwise distinct elements puzzles and intrigues the alert viewer. It may also provide a message about why the items are paired.

In the influential book, Complexity and Contradiction in Architecture, Robert Venturi has collected many examples of ambiguity in architecture including the technique of the shared contour. He has frequently employed the device in his own work, blurring the distinction between building and sign.
Tires and the initials 'MTC,' for Michelin Tire Company, are embedded in many locations throughout the 1911, Michelin House, London.

In the poster, the number 100 is embedded in the representation of wheels giving the message additional meaning.

In Louis Sullivan's elaborate ornamentation, many different geometric figures overlap and collide providing a rich visual experience for the viewer.

**Embedded Figures**

Embedded figures are those compositions where shapes are present but they are not easily perceived. This characteristic is often used in graphic design to give messages two levels of meaning. Likewise in architecture, embedded figures provide discoveries to those who gaze longer. Formerly, it was popular to embed significant initials within a building's ornament as in the Michelin Building at left.
Comparing Architecture and Graphic Design As Objects of Vision

In "Chocolate" each letter is distinctly different, but proximity enables the collection of letters to be perceived as a group.

Proximity
Proximity is the principle that things that are closely adjacent will be perceived together as a group. In the earlier example of Notre Dame, for instance, the mind perceives the many parts and pieces of glass, stone, and geometric figures bounded in a circle above the entrance as the rose window. Instead of the many distinct parts, we perceive a whole, a unity.

Some designs test the limits of the proximity principle, like the Looking logo shown, by extending their component parts as far away as possible while still enabling their comprehension as a group.

Similarity
Objects which are similar in size, shape, or color will tend to be read as a group, objects which are different will be perceived as separate from the group.

As variables, proximity and similarity are frequently paired. Objects that are closely grouped and of similar size or shape are perceived as a group.

In the logo at right, similar size and treatment of images combines with proximity to make four distinctly different things read as a group.

Even though the paired columns are quite different from one another, their proximity allows them to read as a unit.

At this gatehouse, two parts of the building are split across the road, but because they are so similar in form, the mind perceives them as halves of a whole.
In this design by Coop Himmelblau, proximity enables the extremely diverse elements of this composition read as a group.

In the "Looking" logo above, the limits of proximity are tested; the letters are aided in being read as a group by the relative similarity of their sizes and value.

Below: Color is a common way to unify aspects of variety in compositions.
Comparing Architecture and Graphic Design As Objects of Vision

Closure and Continuity
The brain has a tendency to interpret incomplete fragments as complete. Leaving parts of a figure out and letting the mind complete the shape is a way to engage the viewer and is often a way to add an extra layer of meaning to the subject. There is a kind of tension in figures that are incomplete. They arrest the gaze and the attention longer than a completed figure.

A related phenomenon is continuity. Our mind seeks the most direct path to join incomplete fragments. While no actual connection exists between the pieces it is nearly impossible for our minds to interpret these fragments as independent once we perceive them as a group.

For this logo for the French National Park, representations of animals, insects and wildlife converge to form a line, a spiral, suggesting the cycle of life.

Those familiar with the name Dior will complete and comprehend the ad title in spite of the amount of information that is blocked by the model.

For this annual report, there is an implied line connecting the bottles on the chart. Another implied line connects the woman's gaze to the chart.

The irregular fragments of the walls of Daniel Libeskind's Jewish Museum in Berlin resist resolution into a comprehensible whole and so deliver a message about Jewish history.
In the bridge poster, the hands imply a line. An actual line reinforces the gesture. The water ripples add subtle lines below.

In this proposal for the Church of the Year 2000, Richard Meier uses fragments of circles in plan and in section.

Implied Lines
As with closure, this is a technique of suggesting, but not explicitly showing. A line can engage a viewer. Often an implied line guides the path of sight to a focal point in the composition. In graphic design this can be accomplished with rules or with the shapes and positions of the subjects in a composition.

Similarly in architecture, string courses, the mark of separation between floors, or the lines of the material itself, like with brick joints, can provide a sense of direction. The placement of different masses can suggest connection as well.

This characteristic was used to great advantage in Beaux Arts architecture when significant spaces were arranged on axis that were sometimes apparent, sometimes implied. The layout of Washington, D.C., by Pierre L'Enfant, and the reconstruction of Paris, by Baron Haussmann, makes great use of actual and implied lines. In Paris, the implied lines now extend well past the city to the great arch at La Defense, many miles away.
Comparing Architecture and Graphic Design As Objects of Vision

A diagram from Designing Books by Jost Hochuli and Robin Kinross demonstrates that text area that falls on the diagonals of the pages will have the same proportions as the page creating harmonious design.

Composition Principles

The preceding section demonstrated that the objects of architecture and graphic design are perceived according to similar visual principles. It is not surprising then that designers in both fields should choose to create their work following similar principles of composition. Both kinds of designers start from a blank field. They assess the functional requirements of their work and then begin making a long series of decisions that will either support or challenge a viewer's comprehension of the content.

Most often, the choices made by the designer are transparent to a viewer because their job is to focus attention on some part of the work. But much can be learned by distancing oneself from the content of a work and reading its composition separately. Compositions are made of parts and their assembly reveals a designer's intentions. In looking at work, it is helpful to determine why your eyes follow a certain path, where they come to rest, and what techniques the designer used to make that happen.

There are some long-standing conventions in compositions. The choice of a regular, symmetrical composition or an irregular, asymmetrical composition can be revealing. Many compositional choices reflect the conventions of their times. Whether a designer chooses to follow convention, or resist it, reveals meaning to a careful viewer. A violation of convention may signal a deliberate act of rebellion or an accommodation made because the desired effect was not possible. It could also be an innovation that in time becomes established as the next new convention.

Regular compositions are frequently associated with formality, dignity, importance, order, equilibrium. Examples in architecture would be Greek temples, American Georgian style houses, or Mies van der Rohe's Seagram building. Examples in graphic design would be formal invitations, sacred publications, like some Bibles, or important legal documents like the American Declaration of Independence.

Formal compositions typically start with regular geometric figures, like squares, circles and rectangles. They are often symmetrical. From certain periods in history this can have symbolic significance. Renaissance artists and architects, like in the examples of
Irregularity is often associated with energy. In buildings, it may also reflect a priority of function over form. Early American colonial houses, for example, were built first to shelter. Concern for formal appearance came later. One can read the history of the owners in the additions, first a shed, then a kitchen, then an extra wing, added as function dictated and money allowed. Often the materials were similar or datum lines of floors and windows were kept constant, or roofs had similar shapes. With these techniques and others, irregular additions appeared to blend in with the original forms.

In graphic design, irregularity creates emphasis by providing contrast. In the Living Bridges poster, in the preceding section, the irregular line through the center of the poster reinforces the title and enlivens an otherwise static, though elegant, composition.

Irregularity can engage a viewer. The eye lingers in an attempt to find the pattern, the point of balance. On the following pages, the example shown of an asymmetrical layout is labeled "active" by designer Kurt Schwitters. Schwitters and Jan Tschichold, who designed the book shown at bottom left, were part of a group of designers prominent around the 1930s, who promoted the advantages of asymmetrical compositions. They believed these kind of compositions were more vital and more appropriate for modern times because they were more functional. Unlike the static classical compositions or idiosyncratic Art Nouveau compositions that preceded them, these designers of "The New Typography" sought to better express content by means of the composition.

Also since about the time of Schwitters and Tschichold, artists and designers have been preoccupied with the attempt to express the passage of time in their compositions. Influences have come from new media that allow compositions to be seen over time, like film, video, and computer. Designers in two dimensional media have attempted to compress the experience of perception over time onto a single plane, to simultaneously express many ideas or many points of view. Often this results in a densely layered composition that has instances of both regular and irregular, symmetrical and asymmetrical aspects within one composition.

There is less need for architects to pursue these explorations. Buildings, by their nature, occupy space over time. Nonetheless, there has been similar interest in layered space and layered meanings in architectural compositions, especially in those that have been designated as PostModern in style. A good example is the work of Charles Moore. An excerpt from his Piazza D'Italia appears on page 38. In this project, Moore simultaneously combined references to Italy, Roman architecture, the project's neighborhood, modern technology and (using his own face as a gargoyle) Moore himself.

Some contemporary compositions reflect explorations about the nature of order and chaos. They reveal ideas about the complexity of relationships and have an order that is not always easily discerned or that borders on chaos. These compositions are characterized by fragmentation, competing axis, and no clear hierarchy. These too, are a reflection of their times, and like the previous examples cited, they reveal information about the designer's intentions by the choices made in the composition.
Comparing Architecture and Graphic Design As Objects of Vision

Radial Organization

Top: Anti-War Poster
Seymour Chwast
Below: Skylight
NY Guggenheim Museum
Frank Lloyd Wright

Axial Organization

Top: On Edge, book cover
Karen D. Fischler
Below: Social housing
Kochstrasse, Berlin
Peter Eisenman

Radial and Axial

Top: Bauhaus poster
Joost Schmidt
Below: Plan of the Tauride Palace
St. Petersburg
Stanor

Axial in Radial

Top: Web site for Fonovisa
Javier Romero Design Group
Below: Fargo-Moorhead Cultural Center
Fargo, North Dakota
Michael Graves

Circular Frame

Top: School of the Visual Arts, poster
Tony Palladino and Silas H. Rhodes
Below: Castle and palace of Bellver
near Palma de Mallorca
Pere Silva
Rectangular Frame

Symmetrical

Asymmetrical

Layered Organization

Top: Recruitment Poster, US Army
James Montgomery Flagg
Below: Stoclet House
Brussels, Belgium
Josef Hoffmann

Top: Adlake Camera Ad
Maxfield Parrish
Below: Stratford Hall, Virginia

Top: Typography booklet
Kurt Schwitters
Below: The Winchester Thurston School, Pittsburgh, PA
Bohlin, Cywinski, Jackson

Top: Poster for lectures, Royal College of Art
Why Not Associates
Below: West front, Rheims Cathedral
**Shared Conventions**

In organizing the elements of a design into an orderly composition, both designers and architects have some techniques in common. Architects typically use a grid to organize space, to keep structural members within conventional sizes, to create modularity and efficiency in floor layouts. Grids also help to create a rhythm within the space that helps an occupant have a sense of place and scale within a building.

Graphic designers use grids to aid in the legibility and functionality of their designs. Alignment of information along grid lines reduces visual noise, that is, it allows a viewer’s attention to be on the information presented without unnecessary distraction. As in architecture, grids create a quiet rhythm that gives a sense of pace to the unfolding material shown. Grids can also provide a necessary contrast to freeform or irregular parts of a composition.

A corollary to an underlying grid is a system of datum lines. These may be hidden or shown. Like grids they serve to align diverse parts of a composition in a clean and uniform way.

Once a pattern is established in a composition it can be regular, progressive or irregular. Regular patterns can be used to show strength and constancy but when used exclusively may become predictable and uninteresting. Progressive patterns give a sense of movement. Irregular patterns rely on the existence of regularity in order to supply contrast.
Regular Rhythm

Top: Die Sammlung, Bauhaus Archives poster
Grappa Design, Dieter Feseke, Ute Zscharnt

Below: House in Ticino, Switzerland
Mario Botta

Progressive

Top: Japanese shopping bag
Tim Girvin Design

Below: Facade of Grundtvig Church
Klint

Irregular

Top: Absolut Vodka ad
McGlynn

Below: Frederick R. Weisman Art Museum
Frank Gehry
Comparing Architecture and Graphic Design As Objects of Vision

This section, the last in the set of observations about architecture and graphic design as object of vision, serves as a bridge to the next section that compares architecture and graphic design as conveyors of meaning. The set of examples chosen here demonstrate visual manipulations designers use to call attention to aspects of content. Borrowing a term from literature and oratory, visual rhetoric can be considered the art of effective visual presentation.

Rhetoric in verbal and written language often suggests flourish or exaggeration in the manner of presentation. The intent is to persuade the reader or listener to the presenter's point of view. So too in visual design, the choices made are intended to arrest the attention of the viewer and convey a certain attitude or perspective.

Presentations can be considered rhetorical when they go beyond the requirements of function and include an extra layer of information for the viewer. These are often the kinds of designs that require a second look to be fully understood.
In the book, *Perception and Imaging*, author and photographer, Dr. Richard Zakia describes the work of French researcher, Jaques Durand. Durand analyzed the use of visual rhetoric for advertising, which by its very nature seeks to persuade.

He created a matrix with a list of basic operations, addition, suppression (or subtraction), substitution and exchange. These were then cross referenced to a list of the relationships between visual elements. In this way, he created a useful analytic tool for creating and also interpreting visual rhetoric.

Often though, the products of visual rhetoric are created more intuitively. Accepting the premise that designers work with a visible language, examples of visual rhetoric are comparable to, and as common as, jokes, shouts, whispers or sound bites in the spoken language. Their tradition is just as long.

One commonly observed form of visual rhetoric is an operation of similarity, where we see in an object a resemblance to ourselves. There are theories of perception that say that we seek a face or connection with human form in everything that we see. Designers often oblige by making this form more or less explicit. And as viewers we tend to linger and gaze at these faces that gaze back, fascinated by their imitation of us.

In the book, *Complexity and Contradiction in Architecture*, author and architect Robert Venturi writes about rhetorical elements in architecture. He argues that while rhetorical elements may have fallen out of favor with the advent of Modernism, because of their association with ornament, they can nonetheless enrich a building. He calls them “architectural fanfare” because they frequently employ redundant means to emphasize a feature. His book includes many examples from across different eras and cultures that demonstrate visual rhetoric in built form.
Comparing Architecture and Graphic Design As Objects of Vision

**Selective Focus**

*Top:* Poster for the School of the Visual Arts, Lou Dorfsman

*Below:* House in Tuscany, Ettore Sottsass, Marco Zanini, Mike Ryan

When there is a predominantly empty ground the gaze is held by the areas that have detail.

**Juxtaposition**

*Top:* Excerpt from Graphis Poster 90

*Below:* Lloyd's Building, London, Richard Rogers

A head is enclosed by unforgiving metal and a compass. Below, slick, machined building parts are juxtaposed with an oversized remnant of Renaissance architecture, a Palladian window.

**Contradiction**

*Top:* Exhibition Poster called Double Take, Richard Wilde and Judi Minter

*Below:* Door design, Uffizi, Florence, Bernardo Buontalenti

Above, the figures heads are reversed from Grant Wood's classic American Gothic. Below, Mannerist architects were masters of visual rhetoric. The split and reversed pediment at the entrance begs a second look.

**Substitution**

*Top:* M & Co. Group Portrait

*Below:* St. Peter's, Rome, Michelangelo Buonarroti

The poster caption reads: Left to right: Emily Oberman, Scott Siemewell, Tibor Kalman, Dean Lubensky and Marissa Kalman as the hat. Below, Michelangelo used blind windows in place of real ones.
Fantasy

Exaggeration

Nothing Gets You Going Like A Good Breakfast At Country Kitten.

Above, fried eggs are compared to wheels. Below, the airport terminal expresses the concept of flight with its bird-like shape.

A common form of visual rhetoric is exaggeration of scale. In the poster, a viewer's perception of the upper form changes upon realizing the small black shapes below represent people. At right, in his submission to the Chicago Tribune competition, Loos used several kinds of visual rhetoric: irony, analogy, pun, and exaggerated, monumental scale.

The image above compels the viewer to remember "the goose that laid the golden egg" without ever saying the words. Below, technology makes fantasy real in architecture as well. This unlikely facade draws attention to the store.
Comparing Architecture and Graphic Design
As Conveyors of Meaning

This diagram from Philip Megg's History of Graphic Design demonstrates the evolution of the Chinese character: pot.

About Meaning

Victor Hugo is attributed with the idea that, with the invention of the printing press, the death knell sounded for architecture. Today this might seem like an unlikely connection. But were we to put ourselves back in his time and context the comparison would become clear.

Centuries of tradition had supported the idea that buildings could be read. From the tomb of the Pharaoh Seti in Egypt (1300 BC), to the Mayan ruins at Bonampak Mexico (250-900 AD), to the Ellora caves of India (7th - 8th century AD) there were stories in the stones. Across time and place, cultures throughout the world painted, inscribed, or sculpted their most important messages on their most sacred buildings. The magnificent culmination of this practice occurred in the Gothic cathedrals of Europe where every surface, support, and alcove held symbols and representations that conveyed meaning to all who saw them.

Further evidence of this association, communication of meaning in architecture, can be found in the origin of the English word used for separate floors in a building. When we refer to the number of stories in a building it goes back to a medieval practice in some countries, of painting elaborate scenes on the facades of a building’s upper floors, literally different stories.

But far-reaching changes came with the invention of the printing press. Laborious hand copying of precious manuscripts was no longer necessary and information could easily be broadcast on paper rather than in built
form. Four centuries later, in Hugo's time, books, magazines, newspapers and other printed material were cheap and plentiful. The architects of Hugo's time were preoccupied with questions of style and formality that were becoming increasingly remote from the role architecture had formerly played as a conveyer of meaning.

With the development of printing technology, conventions were formulated for communicating information on the printed page. Perhaps because books had been precious for so long, by Hugo's time not only was there great appreciation for the power and reach of the printed word but also for the art of presenting it. A few decades later, in the 1920s, William Addison Dwiggins would name the process of bringing order and form to a printed page—graphic design.

In his book, *A History of Visual Communication*, Josef Müller-Brockmann advocates using the term “visual communication” as a more apt and inclusive expression for the activity of designers who create “all visible forms of information.” It is as if the cycle has gone full circle.

Where once the printing press was the most advanced method of presenting information, time and technology have moved on. In an interesting parallel to Hugo, the power of the computer and other modern media have inspired designer David Carson to put together a book called, *The End of Print*. But with Carson, as with Hugo, it is premature to announce an ending. It is appropriate to consider with both a time of significant change.

With the coming of the digital age, the apparent threat to printed media is somewhat mitigated by the return of a way for buildings to participate again as conveyors of meaning. New building designs include interactive screens, large scale graphics that are part of the ornament, and electronic signs that are the main external feature of the building. Robert Venturi has compared electronics to tesserae, the tiles that formed mosaic pictures in Byzantine times, a romantic observation, but one that makes the point that once again buildings have reclaimed a way to tell stories.

![Vishwanath Temple, Khajuraho, India, 11th century. The form of this Hindu temple could be read by worshippers as the sacred mountain, a nearly universal archetype in sacred architecture.](image)
Evolution of Forms in Graphic Design

As part of their current conventions, both graphic design and architecture employ abstract forms which have evolved from simple, direct representations of things occurring in nature. Image and text are the basic forms in graphic design. Columns, beams, walls, and roofs are among the basic elements in architecture. All of these basic elements in their earliest appearances were created as representations of nature. Gradually their forms evolved to a more abstract level and the early associations were lost to all but dedicated scholars of antiquity.

In Pentagram, The Compendium, Alan Fletcher explains how letterforms that comprise text typically derived from pictorial representations. Over time, the representations became more abstract and the original symbolic meanings were forgotten. He gives as an example our word alphabet. It comes from the Greek names alpha, beta which are themselves taken from the first two letters of the Phoenician alphabet, aleph and beth.

The aleph was a pictogram that represented the head of an ox. Beth represented a house. In this way our word alphabet, representing for us the building blocks of all our written communication, can be traced to its origin as the most basic symbols for food and shelter for an earlier civilization.

An even clearer example of this evolution of letters from pictures is found in the explanation provided by Philip Meggs in A History of Graphic Design. Our letter “O” began as a representation of the eye, “K”, a bent hand, “H”, a fence. Although Meggs cites some controversy regarding this direct interpretation of letterforms from pictograms, for some characters like the “O,” the correspondence seems vividly clear.

Additionally, Meggs shows the example of the evolutions of the Chinese character for pot, reproduced on the preceding page. It is easy to trace the stages of change from the shape of the original vessel to the final character. This example also serves to demonstrate that this evolution of letterforms from picture representations is not restricted to our own language but may have more universal applications.

Our present letterforms bear a closer resemblance to the later, classic Roman letters. In A History of Visual Communication, Josef Müller-Brockmann explains that the Romans took the alphabets of the Etruscans or the Greeks and modified the letterforms so they would be more suitable for engraving in stone. In this way, we can understand one part of the heritage of the letters we use today. They originated as simple pictures but along the way were modified by the need to make the
messages they conveyed permanent. Our letterforms were influenced by the need to inscribe their meaning on tablets, markers and buildings, an early confluence of architecture and the design of visual information.

In addition to text, graphic design employs images in order to convey ideas. Images can take the form of illustrations or abstract symbols. Some of the most common abstract forms have evolved as a kind of shorthand for the ideas that they represent. Consider for instance, the traditional heart shape, which is universally recognized to mean love. The dollar sign in the United States stands for money. The cross is the symbol of Christianity, the six-pointed star, Judaism. Symbolism was often associated with the attempt to communicate the sacred, since by their very nature, sacred symbols attempt to represent subjects which are invisible and unknowable.

Time and contact with other cultures using different symbol systems has altered and enriched our own visual vocabulary. However, as with letterforms, we have often lost the connection between familiar abstract symbols and the original pictorial representation from which they sprang. Take as one small example of this, the mark of the fleur de lis as described in Folklore and Symbolism of Flowers, Plants and Trees by Ernst and Johanna Lehner. The name derives from the flower of the Loys, or Louis, the name of twelve of the kings of France. It is an abstraction of the iris and in this form was associated with French history long before the twelve Louis, dating back to the reign of Clovis I, King of France in the first century AD.

Clovis' soldiers are said to have covered themselves in iris after a great victory. The Greeks named the Iris after the goddess of the rainbow, a messenger of Zeus and Hera. The Greeks planted iris on graves in the belief that the goddess Iris would escort their dead to an after-life. The Egyptians put iris on the sphinx considering it to be a sign of power. Kings in many cultures had iris forms on their scepters believing the tripartite divisions represented faith, wisdom and valor. Like the evolution of the "A" from an ox, the rich, meaningful heritage of this simple symbol is largely forgotten.
The oak tree had an even more significant symbolic heritage. It was venerated in many cultures and some considered it to be the Tree of Life. It was associated with fertility and abundance.


An updated leaf logo for the furniture manufacturer Drexel Heritage is the natural extension of the company’s attitude. The leaf refers directly to wood, while its windblown state suggests a freedom consistent with current thinking on home decoration: the freedom to mix styles, periods and tastes, to make choices and personalize your home.

This interpretation is vastly distant from the use of the oak leaf symbol in earlier times. Even if it were to be used to represent its earlier meanings it would not be understood by the general public. Those early meanings and associations have been lost over time.

The point of reviewing these two examples, the iris and the oak, is not to say that we should be trying to resurrect ancient symbolic associations but rather that it is important to recognize that visual language is powerful and fluid. The meaning of forms will change over time. Their power to communicate comes from the degree to which they are universally recognized. The more familiar the meaning of a symbol, the more potential it has to convey a message to an audience.

Choosing the right form for each audience is not easy. Some of the most enduring visual symbols are the simplest, for example geometric forms. The circle was
used as a symbol for completeness, perfection and divinity across many cultures in many eras. It was used to represent the sun, the moon, and the cycle of their motions. Squares came to represent man, solidity and materiality. Octagons, which are squares within squares, symbolized regeneration. Triangles represented balance and the idea of a sacred Trinity.

Simplicity of form alone however, is not a guarantee of universality of understanding. In the book, The New American Logo, Gerry Rosentsweig praises the current trend towards greater use of pictorial representation in corporate logos. He makes the point that abstraction without supporting substance leads to meaninglessness. He points out examples of beautifully constructed abstract forms that offer no clue to the business of the company they represent. If the viewer does not understand the symbolic meaning behind a simple geometric design, the resulting mark is entirely forgettable.

Many geometric forms formerly had greater significance than they do today. Geometry was once held sacred, certain relationships of form were thought to have a connection to the divine. In our time, this understanding and history is nearly lost on the public at large. As a consequence, symbols must return to becoming more representational in order to be understood. They must reference the things that are common denominators of our lives today. The sun, the moon, stars, a few figures from mythology, some religious symbols, are among the few, meager survivors from our formerly rich symbolic vocabulary.

An interesting example of this constant evolution of meaning can be seen in three variations on the Atlas myth in Rosentsweig’s book. Atlas was a figure in mythology who had the task of holding up the world. His story may represent one of the few symbolic images that is still recognized from ancient times.

The first logo is a more or less traditional rendering of an Atlas figure holding up the world. In the second, the world has been abandoned for a surfboard. The third and fourth offer yet another commentary on the frantic pace of modern life. The Atlas figure in the third still has the world, but it is no longer held high, it is under his arm. This Atlas is on the move. Not only has he got hold of the world, he’s striding forward, book in hand, with some reading to do.

In the fourth version, the Atlas figure is tired. He’s smoking and he needs glasses to see. Once again, the world is no longer over his head but tucked under his arm. One senses that holding the world up is just one of his tasks, there is probably more work to do in the briefcase held in his other arm. Symbols will evolve with the times.
Evolution of Meaning in Architecture

The most significant examples of early architecture are sacred buildings. Sacred buildings, across many diverse cultures, were built as expressions of the relationship of mankind to the cosmos. The similarities should not be surprising because all the sacred designs stem from the same roots, observations and translations of nature. All people observed the same cycles of sun, moon, and stars. Most looked to the heavens as the home for divinity. Most looked to human proportions to find a pattern for divine order.

Common to all cultures were buildings derived from the circle and the square. In Sacred Architecture, A.T. Mann writes:

The square does not exist in nature, it is created by the human mind—dreamed and constructed by us. The circle is god-like, and indicative of wholeness. The symbolic relationship between square and circle is that of human and divine, physical world and spiritual world, imperfect and perfect qualities. The integration of the square and the circle is a metaphor for equilibrium between earth and heaven.

Other meanings attributed to the square, include the four corners of the world, the cardinal directions and the four elements of the material world, earth, wind, fire and water. The circle was frequently interpreted as the circumference of the earth and its center. In any of these interpretations, one can understand the symbolic significance of combining a circle and a square. Many early temples were square in plan with the circle, in the form of a dome above.

In Western tradition, the Greeks learned much about number and proportion from the Egyptians. The Platonists developed complex numerical relationships which they believed had mystical significance, not only as a reflection of divine energy, but as a way to channel it. Because these relationships of geometry were thought to be sacred, they were kept secret, shared only among the initiated.

Architecture was considered to be the built manifestation of sacred geometry. Otto von Simson, writing in The Gothic Cathedral, said:

...it was the School of Chartres that dramatized the image of the architect ...by depicting God as a master builder, ...and it was with the compass that God himself came to be represented in Gothic art and literature as the creator who composed the universe according to geometrical laws. It is only by observing these same laws that architecture became a science in Augustine's sense. And in submitting to geometry the medieval architect felt that he was imitating the work of his divine master.

It was during this time that the symbolic meaning of architecture was at its height. The plan, elevations, sections, and programs for ornamentation of Gothic cathedrals were all based on religious symbolism. There was also lingering symbolism from traditions that would later come to be considered heretical, like astrology.
With the coming of the Renaissance there was a decline in sacred symbolism. The emphasis was ebbing towards humanism, that is a preoccupation with the humanities, the works of man, in favor of theology. In architecture this was marked by a return in influence of the architectural traditions of Rome and Classical Greece. It was during this time that Leonardo drew his famous picture, after the writings of Vitruvius, of a man inscribed in a square and a circle. The meanings were shifting but the geometric symbols remained.

The next important phase of architecture was the Baroque style which was a highly plastic interpretation of Classical architecture, full of dramatic effects of light and space. By this time, the effects of the printing press were taking effect. Buildings no longer needed to fulfill a role as story-teller for a largely illiterate population. Building forms were variations and abstractions derived from earlier Classical precedent. Architecture had become merely fashion and was no longer an important conveyor of meaning.

For the next three hundred years after the Renaissance, architectural styles were derivative of prior styles, culminating, ironically, in the middle of the nineteenth century with a revival of Gothic style. This was judged to be the last true style according to influential critic, John Ruskin. Coincident with this was a renewed interest in symbolism in architecture. It was at this time that architect William Lethaby wrote Architecture, Myth and Mysticism, which revived interest in the early natural and symbolic origins of architectural form. Lethaby's work had influence on, among others, Charles Rennie Mackintosh, Claude Bragdon, Louis Sullivan and Frank Lloyd Wright. Lethaby sought to remind architects of the natural forms that inspired the earliest known archetypes in architecture. It is easy to see how his writings fit in with the growing influence of nature in the Art Nouveau and the principles of organic architecture that followed.

Another tradition that lingered was the belief that architecture was still somehow superior to all other arts. When Friederich Nietzsche wrote passionately about the return of the superman, after the model of Leonardo and other multi-talented Renaissance men, architects were among those who responded with greatest fervor. It was a feeling that fueled their utopianism and made them believe that they could change the world with their architecture.

While Classical architecture still served as the model of ideal proportions, knowledge of the intricate geometric relationships upon which it was based was no longer commonly understood. In an atmosphere that favored ignoring tradition and inventing anew for a new age, architect Le Corbusier invented, or rather, discovered, a complex set of proportional relationships that had close resemblance to ancient systems. This is not surprising since both were derived from the proportions of man and nature. In this way architecture entered the twentieth century with a flicker of its former wealth of meaning.
Comparing Architecture and Graphic Design As Conveyors of Meaning

The idea that meanings in architecture have been lost can be shown with an example that parallels the Atlas logos seen earlier. It concerns the figures above, called caryatids in architecture. Writing in the first century B.C., the architect Vitruvius wrote of the importance of education for an architect:

A wide knowledge of history is requisite because, among the ornamental parts of an architect’s design for a work, there are many the underlying idea of whose employment he should be able to explain to his inquirers. For instance, suppose him to set up the marble statues of women in long robes, called Caryatids, to take the place of columns... he will give the following explanation to his questioners. Caryae, a state in Peloponnesus, sided with the Persian enemies against Greece; later the Greeks, having gloriously won their freedom by victory in the war, made common cause and declared war against the people of Caryae. They took the town, killed the men, abandoned the State to desolation, and carried off their wives into slavery, without permitting them, however, to lay aside the long robes and other marks of their rank as married women, so that they might be obliged not only to march in the triumph but to appear forever after as a type of slavery, burdened with the weight of their shame and so making atonement for their State. Hence, the architects of the time designed for public buildings statues of these women, placed so as to carry a load, in order that the sin and the punishment of the people of Caryae might be known and handed down even to posterity.

At left, Michael Graves interpretation of caryatid-like figures for the Disney Corporation.
Evolution of Meaning in Architecture

**Column Capitals**

Egyptian columns were fashioned after lotus blossoms.

The Greeks stylized previous forms.

Charles Moore stylized further and used neon and stainless steel.

In this version, the capital is notable for its absence.

**Pyramids**

Early architectural forms were the manifestation of mankind's beliefs about our relationship to the universe.

The Egyptian pyramids employed geometric relationships that were held sacred.

The Mayans of Mexico also used pyramidal forms in religious rites.

A modern, transparent interpretation of the pyramid, by I.M. Pei.

**Circles**

Circles were the basis of many sacred structures, shown here, Stonehenge.

The Roman Pantheon employed a circle in plan, section and elevation.

The cathedrals used circles to hold a myriad of sacred symbols.

Louis Kahn used monumentally scaled and totally empty circles.
Comparing Architecture and Graphic Design
As Recorders of History

William Morris lived from 1834 to 1896.

The Arts and Crafts Movement

Buildings and graphic design examples can be viewed as artifacts of history. Both give important clues to the spirit of their times. In the pages that follow some pairs have been chosen that demonstrate the similarity of themes and styles in the two fields across different eras.

A clear example of this point is found in the work of William Morris and Company which formed the foundation of the Arts and Crafts movement. This movement, from the late 1800s, was influential in architecture, graphic design (especially book design), furnishings, and interior decoration.

More than just passing fashion, this work represents a response to deep struggle with some of the social issues of its time. Its influence was felt across great distances, inspiring, among others in the United States, Gustave Stickley in Syracuse, Elbert Hubbard at Roycroft, and the Greene Brothers in California. This influence is apparent even to this day with the continued popularity of Craftsman style furnishings.

In collaboration with architect Philip Webb, Morris produced many influential architectural designs, chiefly for large houses. Pictured above is Wightwick Manor which demonstrates their influence on English style in the 1890s.
William Morris was the focus of a furious burst of creativity. He in turn, had been influenced deeply by others. Like many of his era, Morris had been impressed by the writings of John Ruskin, architectural critic. Ruskin crystallized sentiment that had been growing for some time. He wrote that architecture must be the product of honesty. By that he meant that the structure of a building should be apparent, that the materials used should be true to their nature. He wrote this to protest what he perceived as the accumulation of artifice that had crept into architecture beginning with the work of the Italian Renaissance. Ruskin said that the last true style had been the Gothic. This sentiment confirmed in Morris and others a growing interest in medieval style.

The resonance of this idea was based on the understanding that, in the Middle Ages, work was the product of true craftsmen who labored in cooperative guilds. In the Victorian era, mass production was on the rise and craftsmanship was on the wane. Morris responded to Ruskin by founding a workshop of artists who worked cooperatively, producing stained glass, wallcoverings, furniture, tapestry, fabric, carpet and embroidery designs. In the face of rising capitalism, this partnership was also an experiment in socialism.

A related artistic movement which held deep interest for Morris was the work of the Pre-Raphaelite painters. Among his close friends were Dante Gabriel Rossetti and Edward Burne-Jones. These artists hearkened back to medieval times for their inspiration as well. They sought to express truth, spirituality, and the beauty of nature. They made use of allegory and symbolism in their paintings. These kind of themes also appear in the publications that were produced under Morris' direction for his publishing company, called the Kelmscott Press.
Comparing Architecture and Graphic Design As Recorders of History

Art Nouveau

The emphasis on Gothic style promoted by Morris, Ruskin, Pugin and others could be viewed as one final revival in a long series of historical revivals. With an emphasis on truth and a return to inspiration from nature, this last revival did however, open avenues to more original forms of artistic expression.

For some, the pursuit of honesty that was raised as an issue by the Arts and Crafts designers meant a rejection of historical recreations and a search for a fresh style that was expressive of the new times. Instead of looking to previous designs, themselves derivations of other designs, artists looked to nature. The twentieth century began with great creative energy and that, coincident with this renewed interest in natural forms, led to the development of the explosive, sinewy, curvilinear style called Art Nouveau.

Also known as the Liberty Style (from a store that promoted it), the Noodle Style, in Italy and the Jugend Stil, youth style, in Germany, the exuberant expressions of Art Nouveau were destined to be short-lived and transitional. They seemed, literally, to take the high contrast designs that had become popular in Morris' time, off the page to envelop a viewer in space that wrapped, curled and flowed around.

This clear cross-over between two-dimensional and three-dimensional design was quite purposeful. One of the legacies left from the preceding Arts and Crafts Movement was increased collaboration among artists of
In this American publication celebrating Thanksgiving, designer Will Bradley's flat shapes and use of high contrast suggest the Japanese influence on Art Nouveau.

different disciplines. There was a deliberate attempt to unite the arts to produce whole environments of seamless artistic experience. Van de Velde even went so far as to design dresses for his wife that were harmonious with the interior of their home and dinners were served to guests with the object of satisfying aesthetics as much as appetite.

This emphasis on aesthetics was an inheritance left from the romantic and utopian aspirations of the preceding art style. There was also a growing belief that art should not remain enshrined in academies but that artistic talent should be brought to bear on the design of everyday items. Artists believed that in so doing, they could elevate the lives of the common man.

As noble as these aspirations were, in architecture in particular, many of the effects of Art Nouveau designs were only possible with careful, time consuming hand labor and so were destined to have only limited influence on the general population. In graphic design, the goals were more successfully met as poster and publication design emerged as vehicles for artistic expression.

The style's emphasis on nature was also somewhat an aspect of romantic escapism. It was reflective of the awakening appreciation of the harmful effects of industrial and technological progress. It was in some ways a backwards glance in the midst of a forward step towards the increasing domination of the machine.

In both architecture and graphic design, Art Nouveau also reveals traces of influence from Japan. Japanese prints were very popular at this time. Their simple, flat, calligraphic quality became a source for formal inspiration in graphic design. In architecture, the idea of screens and the flowing spaces of a Japanese house increasingly influenced floor plans.
Comparing Architecture and Graphic Design As Recorders of History

the bauhaus

This floor plan by Mies van der Rohe, is a typical example of the Bauhaus' architectural aesthetic.

The Bauhaus building in Dessau, designed by Walter Gropius, benefited from a restoration effort in 1976.

The Bauhaus was a design school founded in 1919, in Weimar, Germany under the direction of Walter Gropius. The purpose of the school was to eliminate the boundaries between art and technology, to unite the arts and incorporate high quality training in crafts. With this purpose, it can be considered an inheritor of the art and craft philosophies that were popularized by William Morris.

Early promotional brochures for the school, designed by the American, Lyonel Feininger, sounded an echo of the earlier art movement by picturing a cathedral. But this cathedral was not representative of the dark and brooding Gothic that had inspired Ruskin and Morris. It represented instead, the cathedral of the future, a crystal space bathed in light.
The early Bauhaus reflected some of this passionate, utopian and expressionistic bent. The preliminary courses, for example, under the direction of Johannes Itten, stressed fitness, special diets and exercises in self-discovery as essential parts of the core curriculum.

Walter Gropius also was a practical man and part of the tradition he invested in the Bauhaus came from thinking about business. In this he was following in the footsteps of Hermann Muthesius who, in 1907, had founded the Deutscher Werkbund, an alliance of manufacturers, architects and writers. Muthesius had been in England at the height of the Morris' influence and he recognized that uniting art and standardized production could give a manufacturer a competitive edge. This same kind of thinking helped Gropius raise money and gain support for his ideas about a building school.

Another inspiration to Gropius was Peter Behrens. Behrens had begun his career, as a painter, as one of the founding members of the Darmstadt Artist's Colony, another collection of artists inspired by the philosophies of Arts and Crafts cooperatives. Eventually, Behrens found his calling in architecture. He produced several very influential designs for the German Electricity Company, the AEG, that explored the expression of power and modern technology. Behrens, in the kind of cross-over of disciplines that was fostered at this time, also produced graphic design work including publications and exhibitions in support of the AEG. Walter Gropius considered Behrens to be among his most important influences.

In 1921, Theo van Doesburg became associated with the Bauhaus. He brought with him the influence of De Stijl, which in turn had been influenced by the Russian Constructivists and indirectly by Cubism. His work favored rectilinear compositions of primary colors, or for printed pieces, red and black ink on a white ground. The emphasis was on abstract form and relationships rather than representational imagery or decorative motifs. The architecture of van Doesburg and other members of De Stijl was likewise planar and abstract and absent of decoration.

Around this same time, publications of the work of Frank Lloyd Wright were becoming popular in Europe. His compositions of shifting planes and flowing spaces seemed to answer questions that European architects were simultaneously posing in their own work. The combined influence of all these and Gropius' own developing factory aesthetic inspired the planar, axial compositions in graphics and architecture that have come to be associated with Bauhaus style.
Comparing Architecture and Graphic Design As Recorders of History

This house from the 1930's exibits classic details of Moderne, curvilinear forms, pipe railing at the stair, glass block, and light, neutral colors.

**Moderne**

Stylistically, the fashion of the 1930s that came to be known as Streamline, or Moderne, sat philosophically in a middle ground between the utopian aspirations of the Bauhaus and the decorative traditions inherited from the Art Nouveau. Moderne was a successful and popular commercial style. Moderne literally took the rough edges off the strident, visionary minimalism of the fledgling International style and unapologetically created fashion.

Moderne was immediately preceded by Art Deco, sometimes called Jazz Modern, which took hold in the imagination of American designers from about the middle of the 1920s. Art Deco was characterized by a rejection of historical precedent and the use of rectilinear, often zig-zag forms. Moderne was somewhat less exuberant than Art Deco, perhaps in response to the sobering effects of the world-wide financial crisis that was marked by the American Stock Market crash of 1929.

Like Art Deco, Moderne was influenced by Cubism. It took its inspiration from simple geometric forms and it emphasized originality over historic revival. Influenced by the lingering effects of line, from the Art Nouveau, and an emphasis on speed, as celebrated by the Futurists, Moderne design usually included...
flattened surfaces, curvilinear forms and thin parallel lines, often resembling speed stripes to reinforce the feeling of movement. It was during this time that industrial design came to be recognized as a design profession and many of the early products of industrial design were in the Moderne style.

Transportation became a popular theme. Trains, ships and automobiles supplied decorative inspiration. In architecture, other characteristics of the style were pipe railings, glass block, round, porthole-like windows and metal surfaces. The emphasis was on shine and the tone was sleek.

Graphic design in the Moderne style, also exhibited a movement toward more abstract, geometric form. Typographically, serif type faces were abandoned in favor of cleaner, saper type. From Art Nouveau there was left a lingering softness of effect, that served to contrast Moderne against the hard, angular abstractions of the contemporary Bauhaus style.

In this classic example of Moderne graphic style, designer A.M. Cassandre starts with a rectangular block, then erodes the block with a curve that becomes the edge of the ship. Smoke and blended color soften the hard forms.
Deconstructivism

In his book, *Architecture Today*, architect and critic Charles Jencks makes the point that Deconstructivism is a form of rebellion. It depends on the existence of accepted conventions in order to violate them and produce its characteristic shocking effect. With this as its basis, it cannot long sustain itself as a formula for design. If it becomes successful, if most designs follow its example, it then itself becomes the norm, and must reject itself in order to sustain rebellion.

Another interpretation of Deconstructivism is that it is the ultimate and inevitable reaction to the abstract, geometric style of the Bauhaus and International Styles. Those styles promoted the idea of a universal expression of form. All different kinds of buildings were translated into pure, cubic forms. There was a belief that this kind of design could effect social reform. Good people with high ideals, designed buildings to express absolute truths. There came a time when they realized they had promised too much.
PostModernism was the reaction to Modernism. PostModern thinkers believed in many small truths told by many voices. They rejected the idea of a single universal truth that could be expressed with a universal style. In architecture, this rejection of Modernism took different forms. Early on there was a return to Classical forms and historical allusions. These were usually rendered ironically or in layers, the characteristic multivalency of the PostModern view.

Deconstructivism began in part as a rejection of PostModernism. Deconstructivists reject both the idea of an absolute truth and the idea of many truths. They are nihilists who believe that anything can be meaningful and that nothing is meaningful.

In this they are the inheritors of the artistic train of thought begun with Dada. Followers of Dada, itself a nonsense word, challenged the idea of meaning and meaningfulness. They were reacting to the horrors of the First World War. They had been let down by science and technology in which, up to that time, there had been so much faith.

They invented art happenings and recited nonsense words and made strange sounds they called poetry. Some of their art was made from scraps and trash collected in the streets. The influence of their actions and the questions they raised trickled down in influence to the art world across the succeeding generations. Deconstructivism is one among many examples.

Another influence on Deconstructivism is the exploration of scientific ideas about order and chaos. If the International Style took Classic order to its extreme, Deconstructivism can be seen as a full swing of the pendulum, taking irregularity and disorder to its own extreme.

While these ideas may prove fruitful to those in the fine arts or philosophy, graphic design and architecture both must fulfill functional requirements of end users. A page layout that is difficult to understand or a building that looks as if it is collapsing may be clever and provide its own small truth but whether it will have any long lasting impact in the world of visual communication remains to be seen.
The integration of architecture and graphic design is often known as environmental graphic design. It is supported by an international, professional, nonprofit organization called the Society for Environmental Graphic Design. The goal of the Society, sometimes called SEGD for short, is "to provide powerful voice in both increasing awareness of environmental graphic design as a profession, and building bridges among its practitioners."

The multi-disciplined nature of this kind of design is reflected by the membership of the Society. Members are graphic designers, exhibit designers, industrial designers, architects, landscape architects, interior designers, researchers and educators. Membership also includes industry members such as suppliers, artisans and manufacturers and who produce the final objects of design.

This hybrid design field has many important design applications. The next section of this book will look at some of these in more detail. Under consideration will be environmental graphic design's applications to: identify, orient, inform, entertain, ornament, persuade and commemorate.

As a fitting entrance to this section, at right is pictured a contemporary application of environmental graphic design, the Town Gate of the Okawabata City, by architect Toyo Ito. The Egg of the Winds, as it is called, is shiny and reflective as it floats in the breezes of the day. At night, video and television images are visible through an opening in the egg's aluminum shell.
One of the most basic applications of environmental graphic design is the identification of space. The mark, the sign, claims territory, proclaims significance and says to the viewer, you are here.

The tradition goes back to early times. In The History of Visual Communication, Josef Müller-Brockmann tells how signs were important in medieval times:

In the twelfth century guilds were formed in many European countries as a protection against competitors but also to maintain standards of quality... Many tradesmen, publicans, apothecaries and merchants acquired a signboard and displayed it in a striking and conspicuous form outside their house... In England businesses were even required by law to fix signs or shields to their houses in such a way that the illiterate could also find their way about.

This phenomenon is not exclusive to Western culture. In an essay in Sign Communication, called “Signs, Festivals and Signposts, A Japanese Cultural History,” Osami Sakano writes that the earliest recorded signs in his culture had religious associations. These were signposts put along the paths of religious pilgrimage to assure the travelers they were on the right road. There were also signs along the way that were considered small temples. Even today, he writes, in some Southeast Asian villages it is still common practice to put statues of a man and a woman at the edge of the village as sign to prevent the entry of evil deities.
Both Japan and the West share a feudal tradition. One aspect of this is the development in both cultures of heraldic crests. Not only was this a way to proclaim family identity, it served very practical purposes in war. The colors and patterns chosen for these occasions were usually vividly distinctive so they could be found amidst the tumult of a battlefield.

Sakano writes that, in Japan, family crests were not restricted to nobility the way they were in Europe. Every family had a crest. Unlike the complex and colorful European crests, Japanese family crests were based on simple abstract patterns, within a circle, and were usually monochromatic.

In the essay, "Chameleons and Spam Sushi," from his book Cross Cultural Design, Henry Steiner takes up the story of the influence of these crests, called mon, on European design. With the opening of Japan to trade in the middle of the nineteenth century there was a great exchange of cultures. In Europe, Japanese style became quite fashionable and its influence can be seen in the works of many of the artists of the time, like Van Gogh, Degas and many of the other French Impressionist painters.

In Germany and Austria, particularly in the designs of the Wiener Werkstatte, one can see the influence of Japanese art, including their own adaptations of the mon. This idea of marking identity on artwork with a small symbol, eventually developed into the pictograms and logos with which we are familiar today.

In Japan, family crests have evolved into company crests. Steiner cites the three diamonds in a circle from the Mitsubishi family as a familiar example.

At right: the New York version of the Hard Rock Cafe
All signs on these two pages fabricated by Empire Forster of Rochester, NY.
Today's battlefield is more likely to be the business arena. Crests, in the form of corporate logos, still play an important role in distinguishing one competitor from another. The design and marketing of brand identity, has become big business. As in medieval times, the logo is meant to assure the consumer of a level of quality.

In environmental graphic design, the influence of this practice is seen in signs. In our modern world where the consumer is often found in a car, the logos and brand signs take on gigantic proportions. The guitar shown for the Cleveland Hard Rock Cafe for instance is over forty feet tall. Size, design and color all become tools of the designer to attract attention and to persuade the consumer to leave the car and enter.
At left: BMW used its entire building as a sign.
Above: Brand identity becomes an important part of distinguishing one company from another. Using the symbol of the Caribou makes a distinctly Minnesotan version of a coffee bar, by Signia Design.
Integrating Architecture and Graphic Design

Orient

Maps on subway trains provide helpful reinforcement about stops.

Wayfinding systems in airports are crucial to those trying to find their way to planes quickly.

Video signs work well for fast-changing information.

Signage at the subway platform conveys information about routes.
Environmental graphic design finds one of its most important applications in helping to orient and direct people to a destination. Consider how many such signs we encounter in a single day. The pictures at left suggest just a sampling of the signs encountered by a visitor to a city. From the monitors that give flight and gate information, to the overhead signs that identify destinations and services within the airport, to the subway signs that bring visitors to and from the airport, to the signs in the heart of the city, there is a sequence of information to guide and direct. The term wayfinding has recently found its way into use to explain this process.

Paul Arthur and Romedi Passini, in their book, Wayfinding, People, Signs and Architecture, credit architect Kevin Lynch with coining the term in his 1960 book, The Image of the City. Lynch, who probably derived the term from the word wayfaring, was interested mostly in the elements of a city that provided its inhabitants with a sense of orientation within, like edges, landmarks, and nodes. Arthur and Passini say that in the 1970s, Steven Kaplan, Roger Downs and David Stea added concepts of cognition to Lynch’s ideas about the actual artifacts of orientation. The combination of these concepts is called wayfinding.

Romedi and Passini offer their definition of wayfinding as spatial problem solving comprising the following processes: decision making, decision executing, and information processing. Or, put even more simply, wayfinding is the process of understanding where one is within a space, where one’s destination is within a space and the development of a plan for getting from where one is, to where one wants to be.
Integrating Architecture and Graphic Design

The entrance to Smith College speaks of tradition. Design by Jon Roll and Associates, in Northampton, Massachusetts.

Human Resources

Typefaces on signs should be chosen for legibility, as in this example of a design by Lorenc Design for MCI Business Services Headquarters.

Designing a wayfinding system is a challenging exercise. Important considerations are providing the right amount of information for the traveler and providing it at the right time, for instance, critical points of decision making like the intersections of paths.

Designers must also keep in mind the viewer's distance to signs. Signs for those in automobiles should offer a different level of information than those for pedestrians. The amount of information must match the amount of time that the message is in view, which for automobile traffic, may be quite short.

While the designer should not overwhelm the traveler with too much information, redundancy of key information is another important concept. Some people understand their way best by reading maps. Some will understand better with words. Some will ask directions from passersby, no matter how well constructed the wayfinding system. Offering information in diverse ways is often helpful. Number and color systems reinforce a sense of direction. Landmarks, pictograms, and representative icons can also help by being quickly recognizable and memorable.

Language is another important consideration, as any traveler to a foreign country can appreciatively attest. Many subway wayfinding systems are so well designed that even those who don't speak the language are quickly able to find their way around a foreign city.

Providing information in a recognizable system is a key aspect of understanding. When there is a recognizable pattern to information, from the scale of interior signs to exterior signs, the traveler is given a greater sense of ease.
These three signs demonstrate the benefits of a coordinated signage system. From outside the shopping mall to the interior, the look and clarity of information is kept consistent. Design by ELS/Elbasani & Logan.

At left, sign company, Kaltech demonstrates that utilitarian signs don’t have to be boring. Above, another Kaltech installation by designer, Michael Manwaring, shows the importance of function combined with fun. In a sports arena, the important information about the location of the women’s room is conveyed by a gigantic striped W.
Inform

In this Werkbund Exhibition, Paris, 1930, designers Gropius, Moholy-Nagy, Breuer, and Bayer based the location of the panels on their relationship to the field of vision.
Environmental graphic design has an important role to play in informing and educating the public. The most memorable examples of this are found in exhibition designs. The combination of images and text in a place specifically designed to support their content can make a deep impression on the viewer.

With advances in photography and printing technologies, the incorporation of large scale photographic images altered the texture of trade exhibitions and World's Fairs forever. From about the 1930s onward there were exciting innovations in visual presentations of information. The pioneers in this effort included the Bauhaus members shown at left, as well as Alvar Aalto, George Nelson, Will Burtin, and the Italian designers shown at right, among others.

It is from these designers that we inherit the concept of enveloping the viewer in information. This concept has been accompanied by increasingly sophisticated technologies so that now a viewer is not only surrounded by, but interactive with, the visual presentation. Museums, especially science museums, have adapted this technique and thousands of patrons daily learn by seeing and by doing.

Walt Disney understood the power of this kind of presentation to inform as well as to entertain. His vision became the driving force behind DisneyLand, DisneyWorld and most recently EuroDisney. The impact of the quality of the presentations of the Disney Corporation can be felt world-wide.

A common type of exhibition is the trade fair. Attracting viewers to a booth to make contacts and to promote sales is an enormous business. Attendance and response to trade shows can make or break a company's sales for the year. Car shows and computer fairs are well known examples.
Integrating Architecture and Graphic Design

Some of the premier exhibit designs of our time have come from the offices of Chermayeff and Geismar. Writing about exhibit design in a 1978 essay called Exhibition Observations, Ivan Chermayeff reminds us that in spite of advances in presentation media this essence of an exhibit is the object the exhibit is about. Chermayeff wrote:

Exhibitions are an opportunity to present real stuff. Stuff which you can walk around, maybe even touch. No flickering images; no half-tone dots. No excuses. No limits of the media. The real thing is beyond the powers of reproduction. (In this sense, exhibits are to photography what photography is to illustration.)

Exhibits are more than the presentation of things. They are the result of choices considered. Deletions reluctantly or deliberately made. Relationships. Between object and object, between subject and subject, from object to source, from source to source, bridging object and words, and even words to music. Exhibits can include, along with the real thing, enlightening texts, revealing captions, explanatory drawings and diagrams, photographs to reveal contexts, to enlarge and reduce, sounds to enrich and even explain. All in all, an exhibit can make a subject manageable and comprehensible.
A clear system of support information is key to a successful exhibit. This exhibit, by Ralph Appelbaum Associates, Inc., is the Fossil Hall at the American Museum of Natural History.

A more light-hearted example of exhibit design is this installation at the Cleveland Rock and Roll Hall of Fame, by Pentagram.
One of the most impressive uses of environmental graphic design in the field of entertainment comes from the musician, Jean Michel Jarre. To accompany a concert of his electronic music, a spectacular collage of lights and images were projected onto buildings and screens on the island of Mont St. Michel, in France. The viewer was enveloped in a monumental visual and sensory experience.

At the far right, a similar show was presented to celebrate the bicentennial anniversary of the French Revolution. The arch at La Defense, outside Paris acted as a screen for the projections.
Ornament

One of attributes of environmental graphic design is that it is often unexpected. It replaces a plain surface with a place for communication. In the example at left, an artist's interpretation of a map of the Washington, D.C. area is translated into a tile mosaic in the Ronald Reagan National Airport. It adds an element of interest and fun in what would otherwise be an ordinary corridor. It says something to the visitor about the pride of the residents in their city and, even a passing glance while walking past, may provide a reinforcement of basic orientation to the surrounding area.

In the example at right, an ordinary generic building, wide, tall, and unrelieved by windows, is transformed into an attractive destination. The lights and signage announce that Tinseltown is a place for entertainment. The stripes on the towers recall the Moderne style and an era when Hollywood (Tinseltown) was in its heyday.

At the far right, the plain surface of the National Warplane Museum is transformed into a billboard announcing the museum's presence on an otherwise plain facade. The awning, reminiscent of an airplane wing, provides an additional layer of meaning and foreshadows the experience inside.
Type becomes the predominant ornament on the building facade. The winglike canopy reinforces the design theme.

This chain of movie theaters makes use of environmental graphic design to enliven its buildings.
Integrating Architecture and Graphic Design

Persuade

Installation of artist, Barbara Kruger, Mary Boone Gallery, New York.

The National Archives, Washington, D.C.

Artist Barbara Kruger, at the Mary Boone Gallery, New York.
Environmental graphic design has the power to persuade. It gives prominence and power to words and concepts by making them part of the built world. This technique has a long history. In the example at left, the National Archives borrows from Greek and Roman tradition, incising the building name in stone to mark its stature.

Below the inscription is another form of persuasion. Colorful banners entice a weary tourist to see just one more exhibition. The arms of the figure of Liberty beckon and the language on the other banner, American Originals, appeals to the values at the heart of the culture. It seems almost unpatriotic to walk past and not enter the exhibition.

Environmental graphic design has also been a tool for social protest. Making the essence of a cause a visual experience can evoke a deep response in a viewer. Whether the viewer is persuaded to the cause or not, the use of environmental graphic design will likely impress the issue in the viewer's memory.

This power of persuasion is not lost on the commercial marketplace. Environmental graphic design has changed the retail experience. Pioneered by such product giants as Nike, Disney and IKEA, among many others, stores use environmental graphic design to ornament their spaces, to entertain, and in every way possible make their customers linger longer. With the theory that the longer a shopper stays in the store, and the more they know about a product, the more likely a purchase, its power of persuasion has made environmental graphic design has become big business in the retail world.
The structure of world peace cannot be the work of one man, or one party, or one nation. It must be a peace which rests on the cooperative effort of the whole world.
THEY WHO SEEK TO ESTABLISH SYSTEMS OF GOVERNMENT BASED ON THE REGIMENTATION OF ALL HUMAN BEINGS BY A HANDFUL OF INDIVIDUAL RULERS CALL THIS A NEW ORDER. IT IS NOT NEW AND IT IS NOT ORDER.

I HAVE SEEN WAR
I HAVE SEEN WAR ON LAND AND SEA. I HAVE SEEN BLOOD RUNNING FROM THE WOUNDED. I HAVE SEEN THE DEAD IN THE MUD. I HAVE SEEN CITIES DESTROYED. I HAVE SEEN CHILDREN STARVING. I HAVE SEEN THE AGONY OF MOTHERS AND WIVES.

I HATE WAR

Above and left: Franklin D. Roosevelt Memorial Washington, D.C.

At right: Martin Luther King, Jr. Promenade San Diego, California

Designers: Patrick O'Connor and Chris Kraft
Integrating Architecture and Graphic Design

Commemoration of people and events is one of the most powerful uses of environmental graphic design. Memorials are markers that give a physical presence to memory. They serve as a testament and witness across time. Even when those that were part of the event commemorated are gone, and those that remember them are gone, the monument remains for successive generations. It tells its viewers to stop and remember. It requests honor for those who are represented.

Representations of commemoration can take on many forms. They may be outdoor monuments, as with the war memorials and Roosevelt memorial pictured. They may take the form of an entire building, as with the Lincoln Memorial. They may also be as simple as plaques that are given a featured location inside a building.

Maya Lin, the designer of the Viet Nam War Memorial, has gone on to design a number of other memorials. She frequently employs other sensory experiences such as sound and touch, as when water plays across a surface, to create deeper impressions.

Another very common form of commemoration is found in buildings with donor walls. These are usually to honor those who have made financial contributions to the building or the cause that the building serves.

At right: The symbolic form of a cross is rendered in light in this church by Tadao Ando.
Above: The empty grids form a Greek cross in the Monument to Those Fallen in Germany, in Milan by Belgosso, Perscalli and Rogers.

In this Italian war memorial, a hill of soldiers' tombs rises to the horizon. Long rows of text span above their resting place that reminds the visitor that here they are present. Sacrarium, Redipuglia by Giovanni

Above: Famous texts are an important part of the Jefferson Memorial in Washington, D.C.
This bridge area contains the photographs of over 1,000 villagers from a town in Lithuania, most of whom were killed in a single day.
The U.S. Holocaust Memorial Museum

Washington, D.C.
Pei Cobb Freed & Partners, Architects
Ralph Appelbaum and Associates, Exhibit Designers

This first of a series of examples observed in detail demonstrates the application of environmental graphic design techniques throughout an entire building. The purpose of this building is to commemorate those who died in the Holocaust. Commissioned by the United States Holocaust Memorial Council, established by Congress in 1980, the memorial building sits just outside the National Mall, nearby to the Smithsonian Institution and not far from the Washington and Lincoln Memorials.

In accepting this difficult commission, architect James Inigo Freed knew he wanted to convey to visitors some sense of that terrible time by using allusion and metaphor. Writer, Mildred Schmertz, in the July 1993 issue of Architecture, described the challenge this way:

"The architecture was to be in part distillation of Holocaust death camp construction, intended to disturb, upset, and forewarn its visitors, a prelude to the more focused sorrow the exhibits would engender. Freed knew that he was taking a great risk. If the building were to become a hyperreal death camp reconstruction, his museum would surpass Disney in the perpetuation of theme park kitsch."

Along with exhibition designers, Ralph Appelbaum Associates, the building and exhibits envelop the visitor in a carefully programmed experience with three main parts. On the fourth floor is the story of the rise of the Nazis. The third floor tells of the death camps. The second floor is about the aftermath of the Holocaust, telling of those who risked their lives to end the horror, and the stories of survivors who went on to make life anew. The sequence ends in the Hall of Remembrance designed for quiet reflection.
The National School of Theater

Churubusco, Mexico City
TEN Arquitectos

Occupying the exposed tip of campus, this building provides a strong visual presence on its site. Seen from adjacent highways, the large exterior shell acts as a landmark. The shell also serves to connect and shelter a variety of irregular spaces within the building including: offices, a gym, a library, lecture halls, rehearsal rooms, studios, and workshops.

The space between the enfolding shell and the buildings acts as tunnel and stage. It is neither indoor or outdoor space but a comfortable mix of both. What makes this an example of environmental graphic design is the way the text is used to communicate and ornament the facade.

On the glazed curtain wall that faces the shell there are lines of type about theater at different scales and on different planes. The type itself, the reflections, and shadows of the type all play against each other creating a richly layered visual experience. The lines of type cross the regular grids of the curtain wall softening and enlivening the severity of the structural order.

In the monograph, TEN Arquitectos, by Enrique Norten and Bernardo Gomez-Pimienta, the building is described this way: "The cavernous, continuous shell acts as a unifying backdrop for this amalgam of contradictory fragments, a proscenium for a diverse cast, each character charged with a different purpose but forced to share a stage... This space is a meeting ground not only for the building's users, but also for paradoxes and opposing forces, a balance of chaos and order."

Type acts as pattern and as message on the glass curtain wall of the building.
Microsoft Prototype Stores

Retail Planning Associates
Columbus, Ohio

Recognizing the increasingly competitive nature of the software marketplace, Seattle based company Microsoft sought to create a brand image for their products that would appeal to the average, home computer user. Using the power of environmental graphic design to persuade, Retail Planning Associates developed an attractive and compelling set of display components that can be assembled as a store within a store.

In the September issue of VM+SD Magazine, Lynn Baxter explains the importance of easy access to information for consumers. Stores today may have fewer sales people on the floor, or those that are there may have less knowledge about the product than in former years. It becomes critical for the displays to inform the consumer about a product and so close the sale.

Creating an entire environment that carries the brand message sends a strong signal to customers, Baxter writes. “Such vendor shops have validated themselves with significant sales increases, not only for their own brands, but for other products in the same category as well as for the retailer.”

Microsoft shops may be found in the United States in stores such as Media Play, CompUSA and Best Buy, and in other countries including Canada, France, Sweden, South Africa and the Pacific Rim. Baxter cites figures that “show the installed shops to produce consistent sales increases of one hundred fifty to three hundred percent.”
World of Coca-Cola

Atlanta, Georgia

Thompson, Ventulett, Stainback & Associates

This example of environmental graphic design contains many of the attributes described in the previous section of this book. The 45,000 square foot building is a museum about the history of Coke and exhibit center. As such, it fulfills the function of commemorating history and of informing the public. It also provides a significant mark of identity for the company and for Atlanta, whose association with Coca-Cola is comparable to Detroit and cars.

In the December, 1990 issue of Architecture, architect Bo Crum explains another function of the building. "Through both direct and indirect corporate patronage, Coca-Cola has had a positive impact on Atlanta and continues to be instrumental in elevating the art of architecture in the city. Yet, for its museum, the company knew the pavilion shouldn't be an architectural jewel in and of itself. Coke wanted a building that would make people smile." This was a building that was meant to entertain.

The building uses several design techniques to convey its meaning. The rhetorical technique of monumental scale is used at the entrance. The huge logo is wrapped in a spherical grid that could be an analogy to Coke being found all over the world. Using the technique of substitution, the script version of the Coca-Cola logo replaces the traditional decoration found in a classic entablature. Grids at many scales give a sense of rhythm and proportion to the building's face.
The Fremont Street Experience

Las Vegas, Nevada

The Jerde Partnership

Conceived as a way to make the businesses on this street in Las Vegas competitive with flashier neighbors, ten hotel owners declared their neighborhood an entertainment district. They commissioned the Jerde Partnership of Los Angeles to create a connection between their establishments that would attract and delight crowds. The result was a dynamic lighted corridor, made of a space frame and over two million lights and with sound generated from a 540,000 watt system. Thirty two computers generate the animations that are projected on the canopy roof. Shows change every hour to provide continual interest for passers-by.
Understanding the Intersection of Architecture and Graphic Design

The Value of Graphic Design to Architecture

Architecture needs graphic design. Graphic design gives architecture a way to return to its origins as, not only shelter, but as a conveyor of meaning. The inclusion of graphic design in architecture is a trend that marks a returning swing of the pendulum, from a preoccupation with abstract form to substance, from architecture of nothingness to architecture filled with meaning.

The incorporation of graphic design in architecture is not important in every building. Ironically, it becomes significant at both ends of the spectrum. For inexpensive, generic buildings, the kind that architect Robert Venturi calls "decorated sheds," it offers a way to make them interesting. For instance, the plain, undifferentiated facade of the cinema above has become, with the application of graphic elements, a source of fun and a landmark in its community.

At the other end of the spectrum, for buildings of great significance, graphic design offers a way to make them readable and significant to the public at large. The graphic messages on buildings are not coded in some arcane symbolic language but a vernacular one, the written language we use every day and images whose meanings are current.

The greatest gift that graphic design brings to architecture is flexibility. On a building, which is by its very nature intended to be somewhat permanent, graphic design offers a way for the building to change over time, sometimes over years, or as in the case of the example above, over minutes.
The Value of Architecture to Graphic Design

Graphic design has much to gain from architecture. In a world of constant change, the products of graphic design have short lives. They fall out of fashion, or worse yet, set fashion and become copied endlessly. Or the information they carry goes out of date. The paper they are printed on is easily thrown away or recycled. The products of graphic design are, for the most part, expendable.

Graphic design on newer media faces different risks. Designs created for the web, video, or television are often at the mercy of the person at the keyboard or remote control. Faced with an audience with a short attention span, the designers for these mediums have no guarantee that their intended message will even be visible long enough to convey anything at all.

Enter architecture. Architecture gives graphic design a more permanent way to have an impact. Even if the graphic design elements are valued for their ability to be changed over time, the typical duration of their installation will likely be longer than a paper or some form of newer media design.

New questions confront a graphic designer working with architecture, about lighting, viewing distances, transparency and a whole new scale of proportions. But once these new challenges are overcome, interfacing with architecture offers graphic designers something that can only be simulated on a computer screen, real depth, real space and real contact with the public over time.

Additionally, providing graphic design services for architecture extends a designer's potential customer base. Perhaps though, the greatest advantage this combination offers is the visibility of the work. Whether it is used for commercial, political, social, educational, artistic, entertainment or commemorative purposes, the combination of architecture and graphic design has the power to create lasting impressions, the power to make a difference with design.
Graphic Design Applied To Architecture

The examples at left show how graphic design can add to a building even as a simple application on the surface. The lower series shows two dimensional applications of graphics in or on buildings. The upper series shows three dimensional translations of two dimensional graphic design.

The Upper Series (from left to right)
Abstract lines and scribbles take dimensional form on the face of town houses in Georgetown.

This campus bookstore announces its unconventionality with its logo, strikingly framed in a bright blue band.

The letters on the top of this airport building provide another answer to an architect's perpetual dilemma, how the building should meet the sky.

In this interior application, candy colored letters, dimensional dashes and squiggles set an appropriately happy scene at this ice cream store.

At this stadium, large dimensional letters and colorful, changeable banners give the building a presence from a distance.

The Lower Series (from left to right)
A blank facade takes on new life with a full sized trompe l'oeil rendering of a building.

Image alone is enough to convey an atmospheric message in this backdrop for a concert by the famous three tenors, Pavarotti, Domingo and Carreras.

White vinyl letters in regular lines recall great authors and their works in this text only application in a library.

Putting images on buildings has a long tradition. Here is an old advertisement painted on the blank brick wall of a building.
Understanding the Intersection of Architecture and Graphic Design

Graphic Design Integral To Architecture

These examples show graphic design in an even more integral role with architecture. If the graphic design elements were removed, the buildings would not create as deep an impression. The upper series shows predominantly interior applications and below, exterior.

The Upper Series: (from left to right)
The abstract design in stained glass and the cross are graphic elements that convey meaning and help set the mood for reflection in this church.

Interactive computer screens, videos and signage convey information and keep customers interested in this store and cafe.

With words like “Ouch”, and “Zowie” in vinyl on the floor of this store, there can be no mistaking the atmosphere or the cosmic themes of the merchandise.

At this design center, Massimo Vignelli gave the dogged designers a sense of orientation and scale by marking the floor levels on the elevators. Banners are a festive touch.

The Lower Series: (from left to right)
For this Italian shopping center, Aldo Rossi planned the names to be integrated into the brickwork providing a beacon to train travelers. He also designed platforms for the installation of advertising panels in the future.

In the Michelin Building, tires, initials and the Michelin Man himself in the stained glass window reinforces the brand image.

Discreet golden arches and an enormous bag of French Fries, causes the public to take a fresh look at an old, familiar restaurant.

Technology and imagination combine to make graphic design an integral part of the design of this proposal for a Manhattan skyscraper by Fox and Fowle.

In this store design by Alvar Aalto, the tall signs are the predominant architectural feature.
Understanding the Intersection of Architecture and Graphic Design

Graphic Design Integral To Architecture

The Upper Series (from left to right)
The Knoll showroom uses floor height letters in neon to announce the brand name and provide an interesting framework to show off the furniture maker's products inside.

Images and text are projected on screens and walls to tell stories in this memorial to the Holocaust.

Text and image integrated in an environment are essential elements to exhibit design.

Text on the windows, sculpture and a coordinated graphics program on the interior entice customers into this store.

Dimensional graphics at sports events is big business. The most dramatic examples come from the Olympics where designers seek to showcase not only the sport, and the spirit of competition, but the atmosphere of the sponsoring country as well.

The Lower Series (from left to right)
In this proposal for Arizona State University, by TEN Arquitectos, billboard-like screens will be controlled by computers generating changing messages to the students outside.

In this design for a newsstand by Pentagram, text and graphics are not only the way to attract customers but are representative of the products for sale.

In this museum, the exterior graphics by Michael Beirut of Pentagram, convey a sense of fun and are designed to appeal to the museum's target audience, children.

Like many government buildings, the National Archives makes use of text etched into the stone and representational art to symbolically convey its importance and purpose.
Architecture Influenced By Graphic Design

In this last set of examples, the buildings do not have representational images or text to qualify as integrating graphic design in their designs. They do, however, seem to exhibit the influence of graphic design.

In the upper row at left, is a store designed by Stephen Holl. Like some of the examples shown in the first part of this book, the pattern of the window mullions could just as easily be used as a layout for a poster or page in a publication. At bottom left, the Cranbrook Institute of Science, another building by Holl shows similar graphic design influence.

The winery at the upper left uses the building as background to make the landscape beyond the figure in the composition. Using the building to frame the view shows a concern for pictorial image that is related to graphic design.

Likewise, the building below with its large expanse of clear glass on the main level, appears to frame a careful composition of furniture beyond.
Finally, there are also occasions when graphic design is influenced by architecture. Often buildings are used in graphic design symbolically, to convey gravity, power, strength, or national character. The examples on the lower half of the page, from the news show Sunday Morning with Cokie Roberts and Sam Donaldson, demonstrate how this show uses architecture as part of its background graphics to symbolize government.

The upper series of examples are from advertising. First Union bank sets an ominous tone for the future with its images of monumental architecture. Xerox uses the backdrop of classical Greece to dramatize its message. Teknion uses architecture juxtaposed with a person to arrest attention.

With these examples the circle is complete. This book has demonstrated that although architecture and graphic design are unique and different disciplines, they share many attributes in common. Their overlap has evolved into a unique discipline of its own called environmental graphic design. And finally, the ripple effect from the conjunction of the two disciplines is shown here, demonstrating some of the ways the disciplines influence one another.
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