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The influence of context on message-making and audience reception in graphic design

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The Influence of Context on Message-Making and Audience Reception in Graphic Design

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Abstract

The reception of a graphic design solution is greatly affected by the environment in which it is viewed: the space around it, and how it is approached and accessed. Obviously, the designer cannot control the specific life experiences that shape a viewer's personal response, or how that viewer may be situated in a broader, cultural context. Designers often have at least some degree of control over contextual factors that contribute to the message-making potential of a graphic design solution, as well as the form the solution takes, and how it is presented to an audience.

When carefully constructed, content, application, display and context can work harmoniously together to effectively relay the intended message to a viewer (i.e., *congruence*). Conversely, planned *incongruence* between context, presentation and form can also be a helpful tool for designers: incongruence has the power to draw viewer attention, promote closer inspection or conversation, and provide a strategy for extending the message to alternative audiences.

Graphic design, environmental graphic design, museum, gallery and exhibition studies, interior design and site-specific art take context into account as a primary concern from the upfront conceptual and material processes to final form and presentation stages. This thesis study examines context across disciplines, using these existing examples as the initial inspiration for the development of a group of incongruent, site-specific installations on the Rochester Institute of Technology campus.

Keywords

Graphic Design
Design Problem-Solving
Physical Context
Environment
Installation
Incongruence
Visual Communication

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"A creature can live only in a context that favors its life.
An artifact exists and means only in a context that supports and reinforces its meaning."

The Way of Ignorance and Other Essays by Wendell Berry (Page 75)

This thesis is dedicated to Bradley Kevin Johnson.

Special thanks to the dedicated faculty at the Rochester Institute of Technology,
especially advisors Deborah Beardslee, Alex Bitterman and Therese Mulligan.

Table of Contents

Problem Statement

Viewer interpretation is shaped by numerous factors including content, composition and context. Context has a key role in message comprehension: the differences between how someone understands a hastily-posted event notice in the form of a photocopied flyer and a well-funded advertisement displayed as a glossy billboard.

The reception of a graphic design solution is greatly affected by its viewing environment: the space around it, and how it is approached and accessed. Obviously, the designer cannot control the specific life experiences that shape personal response, nor how a certain viewer may be situated in a broader, cultural context. Designers do, however, have some hand in controlling contextual factors that contribute to a graphic design solution, as well as the form that it takes, and how it is presented to an audience.

When carefully constructed, content, application, display and context can work together to effectively relay the intended message to a viewer (i.e., *congruence*). Conversely, planned *incongruence* between context, presentation and form can also be a helpful tool for designers: incongruence has the power to draw attention, promote closer inspection or conversation, and provide a strategy for extending the message to untapped or alternative audiences. Please see page 44 for further elaboration of the terms congruence and incongruence.

Environmental graphic design and architectural frameworks, typologies and conceptual processes provide useful, parallel methodologies for examining graphic design in context. Museum, gallery and exhibition studies and interior design examples similarly provide useful precedents for situating a specific design solution on site and controlling its display. Site-specific public, land, destination and installation art may also supply adoptable principles, processes and strategies. These other disciplines, along with graphic design, take context into account as a primary concern from conceptual and material processes to final form and presentation.

Project Relevance and Importance

This thesis seeks to investigate, define and establish context as an indispensable tool for graphic designers. This will be achieved through the identification, analysis and categorization of previously unexplored interrelationships between the processes and methodologies of many disciplines, including architecture, museum, exhibition and gallery studies, interior design, and site-specific art. All four disciplines include context as an important consideration in conceptual planning and final outcome.

The discipline of graphic design analyzes and utilizes context in specific areas of study such as environmental graphic design, wayfinding, systems planning and large scale graphics. This thesis will make use of specific contextually-based design techniques, especially incongruent techniques, that translate from solutions in other disciplines to aid graphic design.

A study of interactions between context, format and presentation reveal cases of congruence and incongruence across a broad range of examples in all the aforementioned disciplines (please see page 44). These words can expand the discipline of graphic design by providing additional terminology to describe how a solution can interact with context, environment or site.

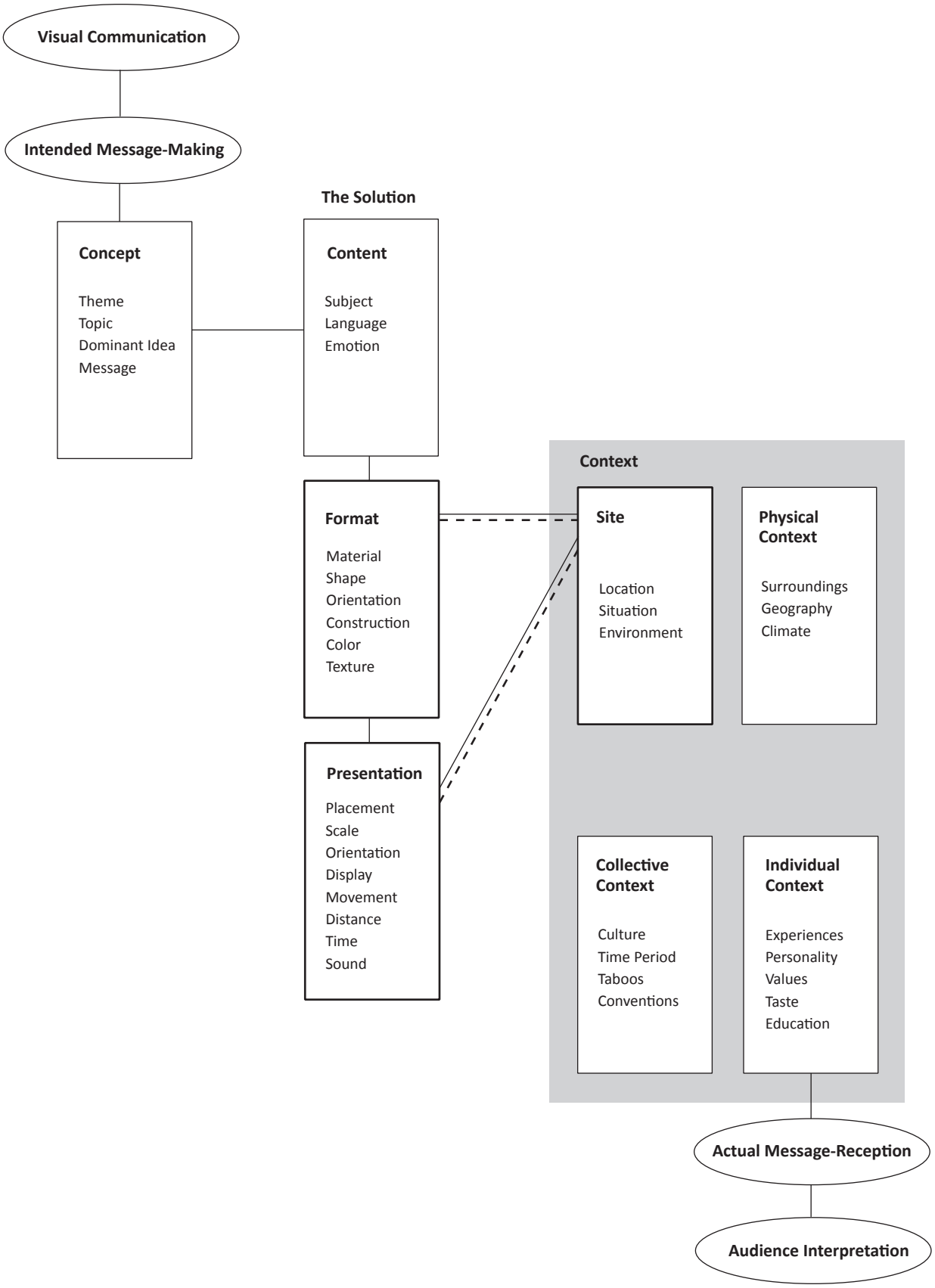
Selected Key Questions

Environmental Graphic Design	• How do viewers establish context? • What is wayfinding, and how can it add to a discussion of context? • How do environmental graphic designers treat context differently, and perhaps more extensively, than traditional graphic designers?
Architecture	• Can theories from architecture suggest a methodology for examining graphic design solutions in context? • How can architectural programming inform and direct graphic designers? • What is the relationship between architectural limits and incongruence?
Museum, Exhibition and Gallery Studies	• How can context shape viewer interpretation of a object or artifact? • Which tangible factors (light, wall texture, wall height, textures, materials, etc.) most directly define or establish physical context? • Which intangible factors (time, sound, climate, etc.) also define or establish physical context?
Interior Design	• Which contextual considerations most directly influence interior designers?
Site-Specific Art	• What can graphic designers learn from the areas of public, land, destination and installation art?
Synthesis	• How can attributes related to context be defined for graphic design? • How can designers utilize congruities and incongruities of context to attract viewer attention and promote closer inspection or conversation? • Which incongruities of format or presentation attract viewer attention?

Associated Areas of Study

Discipline	Description	Key Concepts
Environmental Graphic Design	A more specific field of graphic design practice that focuses on design solutions destined for a three-dimensional space.	Wayfinding Signage Movement
Architecture	A broad discipline concerned with the planning and creation of the built environment.	Methodologies Programming Disjunction and limits
Museum, Exhibition and Gallery Studies	Methodologies and processes related to the placement of fine art in a controlled gallery context.	Display variables Physical context, site Constructed context
Interior Design	The planned and thoughtful arrangement of an interior space, including furnishing, decoration, light and other variables.	Elements and principles Perception
Site-Specific Art	Art or design works, often sculptural and large in scale, that interact with or respond to the physical environment.	Public art Land art Destination art Installation art
Visual Communication	Examination of the transmission of content from design solution to audience via visual means, such as imagery.	Message-making Audience reception
Art History	Examination and analysis of the style and development of visual media through time and across cultures.	Comparisons Formal analysis
Advertising	Deliberate and funded visual communication with a vested interest in persuading the viewer.	Storefront facades Publication design
Photography	The process of taking and cataloguing photographs using the technologies of camera and film.	Imagery Typologies
Systems Design	The study of how the same visual solution can play out across multiple applications and in multiple contexts.	Correspondence Testing
Green Movement	A current movement whose goal is to increase awareness and decrease negative environmental impact.	Pollution Consumption

Explanatory Diagram



Precedent A

Large Scale Design Solutions

Billboards were the initial, primary inspiration for this thesis: it was viewing various billboards *in situ* that first pointed to context as an interesting concern. Billboards and other forms of large scale graphic design solutions are designed for a single, static location and can thus be formulated to interact with a specific environment. Also, billboards often exist in the built, urban environment and reach a wide, public audience – two other important themes related to the purposes of this thesis study.

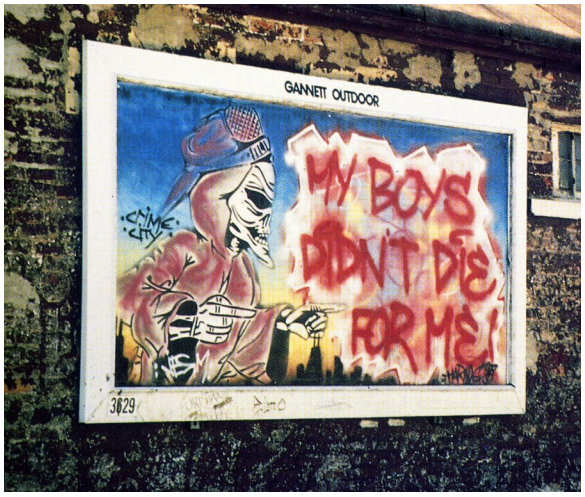
The first billboard to inspire this study is located in downtown Rochester, New York. It extends around the corner of a main intersection. Instead of ignoring this somewhat tricky contextual concern, the designer has chosen to embrace it by changing the shape of the application. This strategy takes the specifics of the site into account and draws viewer attention because the figure on the billboard looks more dimensional than expected.

Strong Memorial Billboard
2007
Rochester, New York
(Sarah M. Kirchoff 2007)

This billboard on the intersection of Main Street and Clinton Avenue in downtown Rochester was an early inspiration.

Precedent A

Large Scale Design Solutions continued



My Boys Didn't Die for Me
Mano Gonzales Jr.
1990
(McQuiston 1993 203)

This billboard helped inspire the examination of incongruity on page 46 of the Synthesis section.

Billboards can draw attention through their material and physical format in addition to their presentation, placement and hanging. The *Your Message Here* campaign encouraged the use of unconventional medium when it ran a series of unexpected billboards featuring graffiti. Depicting this alternative media inside the institutional boundaries of the billboard frame demonstrates an inspiring and unexpected relationship between format and media.

Significance to this thesis study

Billboards and other large scale graphic design solutions supply examples of how specific solutions in graphic design already take context into account as a primary concern. Often, it is unexpected uses of format or presentation that attract viewer attention to a given solution. Context, incongruity, format, presentation, and audience participation are all important themes in the Synthesis section of this thesis documentation.

Precedent B

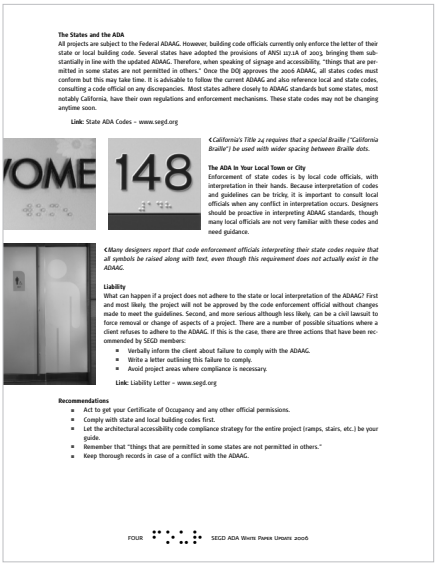
SEGD ADA White Paper

The Society for Environmental Graphic Design (SEGD) Americans with Disabilities Act (ADA) White Paper is an important formal study of designing in context to suit the needs of a particular audience. SEGD provides all the necessary specifications for a designer looking to formulate a wayfinding or informational sign (or system) for a public space. SEGD expands and elaborates the ADA guidelines for creating signage to accommodate a specific audience, the physically handicapped. Practical design information is available, placed conveniently next to diagrams and visual depictions of what, and what not, to do. This information is important to designers with a desire to meet the United States government's public sign standards for format and presentation.

Especially interesting for the purposes of this thesis are how certain display variables, such as typographic placement and point size, take on heightened importance when designing for those viewers with handicaps. Instructions for using raised lettering and braille are provided to accommodate blind and visually impaired audience members. Also, SEGD supplies instructions on the placement of signs to accommodate users of average height and those in wheelchairs.

Significance to this thesis study

SEGD provides guidelines for how to situate wayfinding design solutions within specific contexts: formal characteristics and display variables, including height off the ground, typography size, Braille and raised lettering, are all important design decisions that relate to the user and to the context. By clearly presenting necessary regulations in a stylebook format, designers can easily understand and apply contextual considerations to their design solutions. Instead of simply stating, "graphic design should always be accessible to the blind," the White Paper lists specific variables that guide designers in achieving that goal. Studying the guidelines identified in the White Paper could provide inspiration for how particular contextual information can be clearly presented to the graphic designer.



The States and the ADA
All projects are subject to the Federal ADAAG. However, building code officials currently only enforce the letter of their state or local building code. Several states have adopted the provisions of ANSI 117.1A of 2003, bringing them substantially in line with the updated ADAAG. Therefore, when speaking of signage and accessibility, "things that are permitted in some states are not permitted in others." Once the DOJ approves the 2006 ADAAG, all states codes must conform but this may take time. It is advisable to follow the current ADAAG and also reference local and state codes, consulting a code official on any discrepancies. Most states adhere closely to ADAAG standards but some states, most notably California, have their own regulations and enforcement mechanisms. These state codes may not be changing anytime soon.

Link: State ADA Codes – www.segd.org

California's Title 24 requires that a special Braille ("California Braille") be used with wider spacing between Braille dots.

The ADA In Your Local Town or City
Enforcement of state codes is by local code officials, with interpretation in their hands. Because interpretation of codes and guidelines can be tricky, it is important to consult local officials when any conflict in interpretation occurs. Designers should be proactive in interpreting ADAAG standards, though many local officials are not very familiar with these codes and need guidance.

Many designers report that code enforcement officials interpreting their state codes require that all symbols be raised along with text, even though this requirement does not actually exist in the ADAAG.

Liability
What can happen if a project does not adhere to the state or local interpretation of the ADAAG? First and most likely, the project will not be approved by the code enforcement official without changes made to meet the guidelines. Second, and more serious although less likely, can be a civil lawsuit to force removal or change of aspects of a project. There are a number of possible situations where a client refuses to adhere to the ADAAG. If this is the case, there are three actions that have been recommended by SEGD members:

- Verbally inform the client about failure to comply with the ADAAG.
- Write a letter outlining this failure to comply.
- Avoid project areas where compliance is necessary.

Link: Liability Letter – www.segd.org

Recommendations

- Act to get your Certificate of Occupancy and any other official permissions.
- Comply with state and local building codes first.
- Let the architectural accessibility code compliance strategy for the entire project (ramps, stairs, etc.) be your guide.
- Remember that "things that are permitted in some states are not permitted in others."
- Keep thorough records in case of a conflict with the ADAAG.

FOUR SEGD ADA White Paper Update 2006

SEGD White Paper Addendum
Available at segd.org
2006

The Society for Environmental Graphic Design published this update in 2006. The original White Paper is still available and offers invaluable information about designing signs for a public context.

Precedent C

Borhegyi Principles

In contemporary museum, exhibition and gallery studies, the viewer experience is far more complete, all-inclusive, and hands-on. In fact, many exhibits are elaborate systems involving indoor signs, dioramas, projectors, installations and even outdoor elements such as sculpture and landscaping. This interactive quality is due to modern curators' consideration of "an exhibit as an experiential system. The more of the system that the designer can control, the more rewarding the experience will be for the visitors and for others who use the facility" (Klein 16). This thinking was not always dominant in the world of museum and gallery design, however. Its popularization among curators and organizers can be accredited, in large part, to Dr. Stephan F. Borhegyi.

Borhegyi was the first to situate both viewer and artifact in a recreated historical, cultural or physical context. The use of sound, textures, colors and even architectural elements elaborates the original intention, purpose and meaning of the object:

"Dr. Stephan F. Borhegyi, a dynamic and eccentric anthropologist, became director of the Milwaukee Public Museum in 1959. ... In the newly completed museum building, he began a long struggle to realize his vision of a totally new concept of display. Streets of Old Milwaukee, the first hall completed, was a reconstruction of a gaslight-era neighborhood with cobbled streets, boardwalks, and shops. There was music from the era as it was recorded on Edison cylider recordings and there were things to see, hear and do, such as visit a Nickelodeon theater.
The Milwaukee Museum's exhibit halls are excursions into the past and the exotic. Symmetrical ranks of exhibit cases are nowhere to be seen. Walkways meander through replicas of a Mexican *mercado* and an Indian fishing village. Mammal halls are transformed into forests with earthen pathways. The Northwest Coast Indians are viewed from a wooden dock that blends naturally into the exhibit setting. The scent of cedar is in the air. Everywhere barriers are gone, minimized or disguised. ... When objects are shown in groups as they occasionally are, there are only a selected few and they are displayed with care and lighted appropriately. Everything possible is done to make the visitor a part of the scene, to show the artifacts and objects in a setting that is typical but involving, instructive but fun" (Klein 69).

Period Paintings and Furnishing
The Wallace Collection
London, England
2004
(Newhouse 221)

This modern period room demonstrates how Borhegyi has influenced the display of objects and paintings in the museum setting. The objects are arranged as they would have been seen in a well-decorated home of the period.

Precedent C

Borhegyi Principles continued

Borhegyi's displays are now known as *period rooms*, with various permutations extending from simple cloth walls to elaborately furnished sets. He challenged the traditions of contextual display in museums, placing both the object and the viewer in an all-encompassing physical-historical context. This changed the face of didactic design, or those solutions that educate and inform.

Hot Glass Room
Corning International Museum of Glass
Corning, New York
(Sarah M. Kirchoff 2008)

This interactive exhibit links the techniques of glassblowing to interactive displays of tools, artifacts, and glass.

Significance to this thesis study

Up until Borhegyi's work at the Milwaukee Public Museum, exhibits were static, presenting the object in the style of Late Modernism: devoid of context, and often against a white background. Borhegyi demonstrated the power of historical context and physical site, setting out a practical model for the control of display variables such as texture, placement, smell and sound.

Borhegyi's principles form the basis of many museum experiences today: contextual exhibits and period rooms are standard in institutions across the world and reproduce a wide array of contexts. Modern curators generally agree that interactions between object, environment and audience ultimately strengthen all three by providing contextual information, both physical and historical, that would have otherwise been absent. Borhegyi proved that didactic information is enlivened by contextual planning.

Precedent D

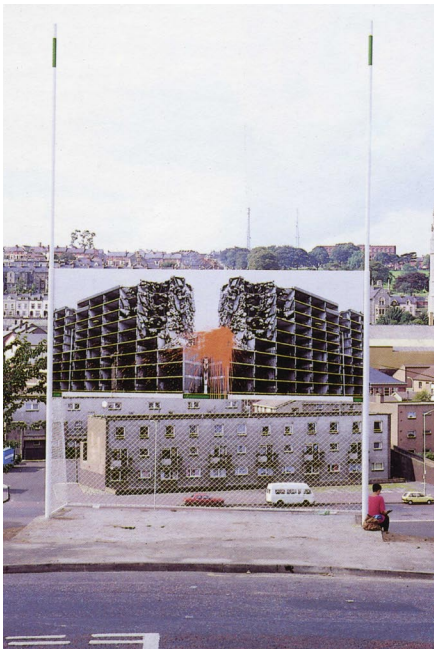
The TSWA Four Cities Project

The TSWA Four Cities Project was a large, collaborative effort by numerous smaller arts groups to bring large-scale, site-specific artworks to cities across the United Kingdom in the early 1990s. The creation and funding of 22 temporary sculptures was organized by Orchard Gallery in Derry, Third Eye Centre in Glasgow, Projects UK in Newcastle, and the Plymouth Arts Centre in Plymouth.

What is perhaps most interesting about the Four Cities Project is not the artworks that were produced, although many of these are contextually motivated, but the mission statement of the organizers. As outlined in the catalogue introduction to the text *TSWA Four Cities Project*, the staffs of four institutions sought to solicit works that not only pushed the boundaries of public art, but also existed decidedly outside of traditional exhibition spaces: "the time is right to present a range of possibilities of what art outside the gallery can be" (Lingwood 8). A simple rejection of the gallery was not necessarily a brand new approach, but was further broadened to include a rejection of *all* comfortable exhibition spaces, including public squares, sculpture parks and other display environments:

"It is possible to situate our initiative most accurately by what or, more precisely, where it is not. The places in which works have been made are different from the museum, and different from the conventional site of the monument. Few of these places would habitually be regarded as places for art projects. Such conventional places, city squares for example, tend to be officially controlled, and as such are the least accessible" (Lingwood 8).

The Four Cities Project centered not only on site-specificity between work and context, but also a deeper focus on each site as a unique place. Chosen artists paid careful attention to the qualities of each location, and organizers encouraged the rejection of both context and display conventions.

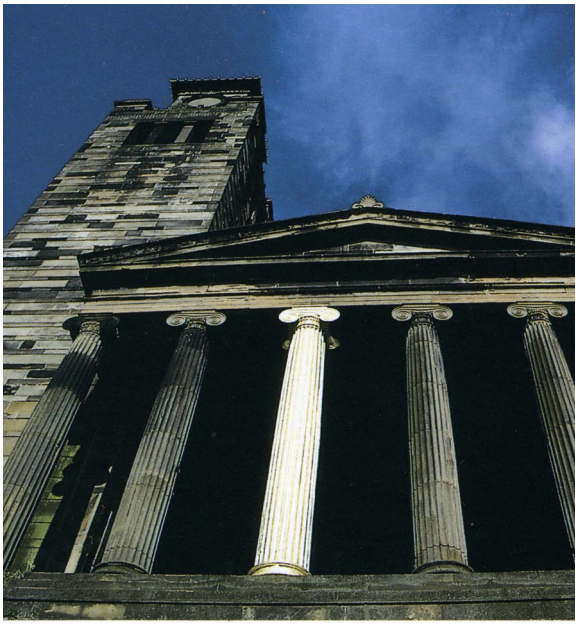


Siege
Dennis Adams
Derry, United Kingdom
1990
(Lingwood 13)

Here the middle section of the sculpture supports a photographic mural of an apartment building that formerly existed in the landscape.

Precedent D

The TSWA Four Cities Project, continued



Every Horse has a Heart
Janette Emery,
Kevin Rhowbotham
Glasgow, United Kingdom
1990
(Lingwood 50)

The revitalization of one bright white column is a commentary on the general disrepair of the church.

Significance to this thesis study

The organizers of the Four Cities Project had a specific explanation of how the 22 works in the project related to their contexts:

"The material with which the artists worked or reorganized was not simply metal or wood, light or laser. It was equally the material of the place, physical and environmental, but more importantly cultural and historical. ... This is not to say that the works sought to give themselves to their surroundings, to sacrifice their status as artworks, but that they have a *raison d'etre* derived from a consideration of the place" (Lingwood 8).

The focus on context as an essential component of the final solution is both an important component of the TSWA Four Cities Project and this thesis. Many examples of artworks in the project blended into their environment, but just as often they were incongruent and unexpected, and this quality was embraced by the organizers.

"The collaboration of artist and place does not necessarily have to result in the absorption of the work into environmental harmony or education expediency. In their resistance to an immediate functional legitimation, the works also assert, sometimes uncomfortable, a place for themselves, as artworks, in the world" (Lingwood 9).

Unexpected uses of context, as well as incongruent site relationships, take on increasing importance during the Synthesis section of this thesis study (please see page 46).

Precedent E

Wölfflin's Methodology

Wölfflin is perhaps the most famous art historian of all time, devoting his life to the organization and taxonimization of a vast, global body of art. His approach grew steadily in popularity through the 1800s, just as art history was emerging as an academic discipline. Written in German, Wölfflin's texts were quickly translated in other languages and disseminated throughout the world. In fact, Wölfflin's methodology is still practiced in contemporary art history classrooms.

Wölfflin's teaching methodology centered on the one-on-one comparison of two art objects. These art objects were usually presented as photographs, often projected side by side on a large screen. Comparisons were almost exclusively made on the basis of formal characteristics, including materials and point of view, color and composition. Wölfflin is perhaps best remembered as a formalist, both accepting and rejecting this label, finally conceding that it would be his legacy:

"Heinrich Wölfflin is one of those art historians who stands for a school. In December 1938 he noted with resignation, 'I will never be rid of my reputation as a formalist,' but then in 1940 he defiantly accepted the formalist label as an 'honorary title'" (Warnke 1).

Perhaps Wölfflin's most quoted addition to art history was his famed *Principles of Art History*, a text that attempted to establish a true, linear art historic heritage. To prove his point that the art of the sixteenth century fundamentally differed from the art of the seventeenth century, Wölfflin set up five stark dichotomies: From linear to painterly, from plane to recession, from closed form to open form, from multiplicity to unity, and from absolute clarity to relative clarity. Images from several artistic disciplines, including sculpture and painting, were then categorized based on their time period, style, and position in each dichotomy. This methodology of direct comparison of art objects was an innovative process that shaped the field of art history.

Significance to this thesis study

Wölfflin's process is a fitting precedent to this thesis because he first pioneered the one-to-one comparison of art objects. Comparisons could include solutions from different time periods, artists and media. Works could be both congruent and similar on some levels, and incongruent and different on other levels. Both similarities and differences were important to the overall discussion, but the differences were perhaps most interesting to Wölfflin and his students.

By dissecting these similarities and differences, an art historian can ultimately learn more about both works via the areas of overlap and disparity. This careful observation and pointed analysis has much in common with the general image-gathering and sorting phase of the Synthesis section where each image was analyzed and categorized. Please see page 47 for an outline of this process.

Precedent F

Bruce Mau's *Massive Change*

Massive Change is a multi-dimensional project that focuses on bringing awareness about current, global issues to the forefront of consciousness through creative and inspiring design. A collaboration between designer Bruce Mau and the *Institute without Boundaries*, *Massive Change* encompasses an exhibition, book, series of public events, radio program and Web site. By using this broad range of media, *Massive Change* hopes to spread a powerful message about human impact:

"*Massive Change* explores paradigm-shifting events, ideas, and people, investigating the capacities and ethical dilemmas of design in manufacturing, transportation, urbanism, warfare, health, living, energy, markets, materials, the image and information. We need to evolve a global society that has the capacity to direct and control the emerging forces in order to achieve the most positive outcome. ... The best way to express the capacities of our modern world is through its fullest range of media. To date, *Massive Change* has taken on the form of a traveling exhibition, a book, a series of formal and informal public events, a radio program, an online forum, and this blog." (*Massive Change* Web site).

The exhibition is especially noteworthy because it takes facts that relate to growing contemporary problems and presents this information in unexpected, creative, and unique ways. Often times, Mau will utilize a larger context, such as all the surfaces of a room, to display information, thus extending the message past the traditional formats, sizes and shapes. This up-front style of presentation makes the message more immediate for the viewer.

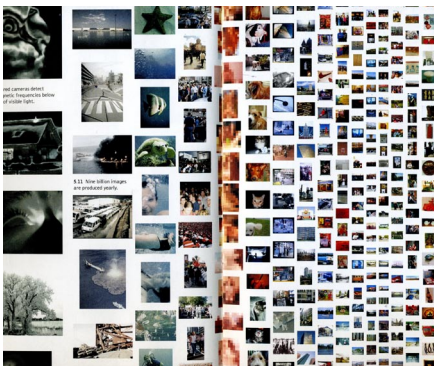
Massive Change Exhibition
Bruce Mau
(Mau 50)

The introductory panel of the exhibition spans an entire wall and sets the tone for the presentation of information throughout the exhibition.

Precedent F

Bruce Mau's *Massive Change* continued

Massive Change Exhibition
Bruce Mau



Massive Change Book Spread
Bruce Mau
(Mau 116)

Mau reinterprets space across media, replicating the emotion of three dimensional contexts on two dimensional surfaces.

Significance to this thesis study

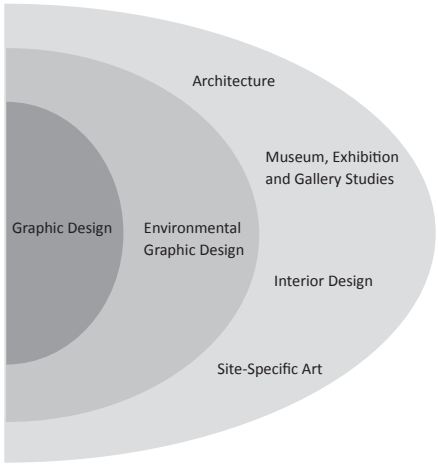
Massive Change pushes the boundaries of exhibitions and environmental graphic design by extending a current events message past traditional and institutional formats. Mau uses space in total, literally surrounding the viewer in his inescapable message. Mau's practice of creating a sense of place directly links to issues of physical context. In addition, Mau's focus on current, global issues links to a broader cultural context.

Bruce Mau's *Massive Change* is a fitting precedent for this thesis study because it focuses on presenting information about contemporary human impact in creative and unexpected ways. The final application for this thesis study similarly focuses on presenting environmental messages in unexpected, incongruent ways in order to draw attention, promote inspection and prompt conversation (please see page 94).

Research

Introduction

Research for this thesis expanded outward from the field of graphic design to other disciplines, including the subdiscipline of environmental graphic design, as well as architecture, museum, exhibition and gallery studies, interior design and site-specific art. In no way is this thesis a comprehensive discussion of any of these genres, but rather is a broad analysis of context across a range of related disciplines and media. Discussion-worthy methodologies are selected and explained, supported by accompanying background information where appropriate.



Research Visualized
Sarah M. Kirchoff
2008

This diagram depicts the outward progression of research about context, from graphic design to other disciplines.

The visual nature of this topic is further strengthened by a substantial photographic component: the collection and categorization of over 200 separate images, garnered from the texts listed in the bibliography. Many of these images are provided in the Synthesis section, see pages 51–85.

The majority of research for this thesis study was carried out at Rochester Institute of Technology's Wallace Library, as well as at sister institutions linked through Connect New York. Online journals and the Rochester Public Library were important secondary sources.

Research

Environmental Graphic Design

Here the word environmental is not related to sustainability or the ecological green movement, but rather refers to the built environment. The subdiscipline of environmental graphic design is concerned with the functionality of built spaces, especially directing visitors through them. Environmental graphic design includes wayfinding signs that regulate the circulation of both pedestrians and vehicles, large-scale graphics for building and vehicle exteriors, and didactic displays that present information in the form of exhibitions. In all cases, there is a link between the design solution and its intended context.

The methodologies of environmental graphic designers are different from those of traditional graphic designers, focusing to a greater degree on physical context, site and environment. In the majority of cases, both physical and cultural context are regarded as important when planning for environmental graphic design solutions because:

"The context in which signs are shown influences how we decode them. The same sign may convey different messages in different surroundings. Environmental signs derive part of their meaning from their location. The culture of the users, their knowledge and attitudes, also influences decoding" (Mollerup 9).

Viewer interpretation of environmental graphic design is greatly impacted by both immediate physical context and larger cultural/historical context. Environmental graphic designers thus treat immediate location, the general cultural context of the audience and the specific interactions of intended viewers, as vital concerns.

How do viewers establish context?

The Cognitive Map

Underlying environmental graphic design practice is an understanding of the cognitive map, as described in Paul Arthur and Romedi Passini's *Wayfinding: People, Signs and Architecture.* The cognitive map, alternatively referred to as environmental imaging (Arthur and Passini v), assumes that contextual experience is quilted from many different vantage points, thoughts and memories: "the product of immediate sensation plus the memory of past experience" (Arthur and Passini v). A viewer does not remember a space, location or site from one particular vantage point, but rather from a combination of perceptions, experiences, inferences and memories.

"A cognitive map is a mental construct of an environment which cannot be seen from one single vantage point alone. It has to be composed from a series of individual vistas. Cognitive mapping is therefore a mental structuring process that integrates into a whole what has been perceived in parts" (Arthur and Passini 23).

Research

Environmental Graphic Design continued

The cognitive map dictates spatial orientation and sense of direction, but also serves as our perception, and subsequent memory, of place: This 'composite context' explains how the average viewer establishes an understanding of his or her environment. Context is not a mental snapshot taken from one viewing location, but is the sum totality of viewer experience.

This helps explain why audience perception is rarely limited by what the viewer can physically see. A person may not be able to get into a bird's eye position to view a space from above, but the average viewer could at least imagine a space from that angle. Our minds infer what we cannot immediately visually perceive and our memory is composed of many of these different perceptions pieced together. Understanding how a viewer interprets and perceives space is an important concern when planning for large scale graphic design solutions and exhibitions, and when creating sign systems to direct users through space. Imagining how the environment will be accessed by the viewer on site strengthens the outcome of the overall design solution and helps guarantee the clearest message-making.

What is wayfinding, and how can it add to a discussion of context?

Wayfinding

Wayfinding sign systems seek to efficiently direct traffic, either vehicular or pedestrian. Designers of these systems must necessarily focus on how a solution is physically situated, approached, accessed and understood by the viewer: "Wayfinding reflects a new approach to studying people's movements and their relationship to space. Even more importantly, this new approach opens up new ways to design for people's spatial behavior" (Arthur v and Passini).

Environmental graphic designers developing wayfinding systems often analyze context in much the same way as architects (please see page 20): attention is paid to site during the initial planning stages, and is in no way an afterthought to the completed design. Per Mollerup, a practicing environmental graphic designer based in Denmark, lists a series of helpful planning questions in one of his books *Wayshowing*; the most relevant are found in the "Gathering Information," "Planning Signage" and "Designing Hardware" sections, provided below:

Gathering Information

- How, exactly, will the site be developed?
- What is the intended circulation?
- From where to where will most wayfinders move?
- Who will use the site?
- When will users use the site?
- How will users reach the site?
- Which similar sites should be studied for inspiration and benchmarking?

(Mollerup 214)

Research

Environmental Graphic Design continued

Planning Signage	• What messages are needed? *Where* are messages needed? • How should signs be dimensioned, positioned, mounted and lit? (Mollerup 217)
Designing Hardware	• What types of mounting are needed? • Does signage require standard hardware or customized hardware? • What about lighting: environmental, external, or internal? (Mollerup 219)

Significance to this thesis study

The above questions guide the environmental graphic designer when thinking about context. Signs must be easy to use and appropriately situated in order to transfer information to the viewer. If a sign fails at either of these points, it may not fulfill its directional function for certain users. This thesis argues that context plays as important a role to the utility of general graphic design as it does to wayfinding signs, large scale graphics, exhibits, and other environmental graphic design solutions. Many different kinds of design can potentially benefit from contextual understanding and planning.

Other disciplines also include contextual questions when mapping a site and gathering information prior to the design phase. Along with environmental graphic designers, architects similarly ask a series of questions about the site of their intended solution before design of the building even begins (please see page 20).

Research

Architecture

Can theories from architecture suggest a methodology for examining graphic design in context?

Introduction

Perhaps because architects must consistently address large-scale spaces, architecture heavily focuses on site mapping and exploration during the programming or pre-design planning stages of the architectural process. An architectural program relies on concerns of site, environment and context: "Site investigation made concurrently with the formulation of program objectives ensures the flexibility of the site's potential and the integration of its natural and cultural features with the design" (Rubenstein 9). An architect's ultimate goal is to utilize the advantageous characteristics of a particular site, and avoid any disadvantageous elements. Programming helps the architect do this by establishing goals for the building, collecting and analyzing facts about the environment, determining the needs of the user, and ultimately defining the characteristics of the solution as they relate to the context (Peña 142).

Programming

Architectural programming is a distinct, documented phase of a larger architectural methodology, generally regarded as a must for any architect first approaching a project. Programming is the initial data-gathering process, on which the design and construction phases are based: "Programming is the search for sufficient information to clarify, to understand, to state the problem" (Peña 16). Programming analyzes and establishes the limits and possibilities of an architectural solution by examining the potential function, form, economy and time of a building. William Peña outlines the stages and steps of the programming process in his seminal text *Problem Seeking: An Architectural Programming Primer*. Please see the Information Index on page 153 of the Appendix.

During programming, context comes to the forefront as a primary concern. Architects spend time investigating the intricacies of a specific site and environment. A similar pre-survey of the intended site could assist the graphic designer in identifying existing structures, selecting materials, discovering potential implementation problems and establishing the overall congruence or incongruence of the final solution within its viewing context.

Of all the variables and concerns outlined by Peña, perhaps form is the most important to an exploration of physical context because it embodies concerns related to the environment: "Form relates to the site, the physical environment (psychological, too) and the quality of space and construction. Form is what you will see and feel. It's the 'what is there now' and 'what will be there'" (Peña 30). Form encompasses not only the tactile, physical characteristics of the architectural solution, but also extends to include how a solution interacts with the larger, surrounding environment.

The variable of time is also an important concern in relation to context because it hints at how values and uses may change over a given period. Issues of time outlined by Peña are also important to this thesis study because they correspond to issues of cultural or historical context.

Research

Architecture continued

Certain architectural programming procedures are potentially more helpful to a study of context than others. Peña outlines a number of such procedures to assist the architect, with abridged lists of the most helpful procedures reproduced below. These lists provide insight into how architects examine and utilize both physical and cultural contexts.

Form	
Establish Goals	• Identify any client attitudes toward existing elements on the site (trees, open space, and facilities). • Identify policies concerning coincident planning and relations with the neighboring community. • Identify client attitudes toward the psychological environment to be provided. • Identify goals concerned with the flow of people and vehicles to provide a psychological environment with a sense of orientation or a sense of entry. (Peña 137)
Collect and Analyze Facts	• Analyze the existing site conditions to include contours, views, natural features, buildable areas, access and egress, utilities, size and capacity. • Analyze the climate to include climatological data on seasonal temperatures, precipitation, snow, sun angles and wind direction. • Evaluate the floor area ratio, the ground area coverage, people per acre and other comparative measures of density. • Analyze local material and the immediate surroundings for possible influences. • Understand the psychological implications of form on the movement of people and vehicles. (Peña 138)
Uncover and Test Concepts	• Evaluate the natural features of the site and identify those to be preserved or enhanced. • Evaluate policy concerning the neighboring community to uncover the concept of sharing or interdependence. • Relate the project to the quality of its surroundings and to its function. (Peña 140)
Time	
State the Problem	• Identify and abstract the major form giving influences of the site on the building design. • Identify the salient environmental influences on the building design. (Peña 143)
Collect and Analyze Facts	• Establish the full significance of the existing building as having historic, aesthetic and/or sentimental values. • Evaluate the historical significance of neighboring buildings. (Peña 139)

Research

Architecture continued

Significance to this thesis study

These programmatic concerns, as articulated by Peña, clearly outline how many architects first address context. Site is an important consideration in the initial planning methodologies of architecture and is consistently readdressed throughout: from programming to design, construction and completion. Although some architectural concerns do not directly correspond, graphic designers can and do adopt (in varying degrees of adaptation) the programmatic concerns of architects. Please see page 39 for examples of architectural programming procedures translated for use in graphic design.

Dismissing the importance of site and context in architecture can have disastrous results. Often, site aesthetics are a major contributing factor in the client's final decision to choose one site over another, and ignoring the specific needs of a certain context can potentially destroy the natural elements that the client originally found so appealing. In addition, poor site programming can lead to unexpected costs, and even the sacrifice of certain components to make up for these costs:

"An inappropriate site or factors of cost may lead to a forced site solution, a solution that often creates problems which need not otherwise exist; for example, excessive grading due to a forced solution may raise the estimated constructions costs of a project, thereby compromising other program requirements, and it may well destroy the natural site features that could have been the primary reason for choosing the location" (Rubenstein 9).

Architects evaluate site first in order to avoid any unforeseen, and often costly, contextual problems. Graphic designers can also potentially avoid costly errors or mistakes by addressing issues of context, form and presentation during the initial, planning phases of design.

Research

Architecture continued

Architecture of Limits

Peña's primary programmatic concerns of form and time are of particular interest to the graphic designer wishing to establish both a harmonious, *congruent* relationship between design solution and context and an unexpected, *incongruent* relationship between design solution and context. Please see the Synthesis section on page 44 for further elaboration of these terms.

Discussions of disjunction and limits in architecture are directly related to the discussions of congruence and incongruence found in the Synthesis section. Often, it is those solutions that push the boundaries in one way or another, either via content, application, or presentation, that propel the entire discipline in new directions. The limits, or the boundaries, of architecture (and other disciplines) are constantly being pushed and tested by new innovations, forms, compositions and approaches:

"In the work of remarkable writers, artists, or composers one sometimes finds disconcerting elements located at the edge of their production, at its limit. These elements, disturbing and out of character, are misfits with the artist's activity. ... The same can be said for whole fields of endeavor: there are productions at the limit of literature, at the limit of music, at the limit of theater. Such extreme positions inform us about the state of art, its paradoxes and its contradictions. ... In architecture, such productions of the limit are not only historically frequent but indispensable: architecture simply does not exist without them" (Tschumi 101).

Significance to this thesis study

Each example of disjunction or limits extends the vocabulary of architectural form, pushing the discipline in new and unexpected directions. For example, the Eiffel Tower in Paris pushes the limits of architecture, now and even more so when it was built. It was different than any other structure that had been constructed up to that point: larger in scale, made of riveted steel, painted black, and erected in the heart of metropolitan Paris. In all these ways, the tower is also a prime example of incongruity: of material, texture, scale and placement. The same factors that place the Eiffel Tower at the limits of architecture can also manifest themselves in an incongruent graphic design solution.

The Eiffel Tower
Gustave Eiffel
Entrance to the Paris World Exhibition
1887
(Reichold and Graf 195)

The Eiffel Tower is a monument to the unexpected because of numerous incongruent relationships between the structure and the site.

Research

Museum, Exhibition and Gallery Studies

Introduction

Museums, galleries and exhibitions have invested a lot of time, energy and money to uncover the specific factors that both directly and indirectly establish context. Because effective display is one of the primary concerns of curators and exhibition designers looking to present information, art objects or products, many texts outline specific variables that affect the display of such objects in the museum setting. People dress themselves in clothes that speak to their character and preferences, just as art objects are dressed by their surroundings, context and display: "We dress for the season and for the event; what works for one doesn't necessarily work for the other. The same is true for art: paintings need their own dress" (Newhouse 212).

The traditional definition of museum context hardly extended a few inches beyond the canvas to the frame. Site-specific exhibits that establish an artifact in its original context have since become the standard:

> "A strict definition of context begins with the frame. ... Frames relate to both the work of art and its setting, acting as a buffer between the two and sending a signal about the art. ... Broadening the definition of context from the frame to the space around the frame raises some controversial questions. ... At one end of the wide range of possibilities are period rooms taken from historic buildings in their entirety. Replicas in varying degrees of exactness are also an option, as are subtle suggestions of specific environments" (Newhouse 262).

In a space where maintaining the historical integrity of an object is a pervasive goal, cultural context can easily become intermingled with physical context. By creating elaborate settings that speak to an object's original function in history, time and space, museums and galleries hope to evoke the spirit of an age and cultural context long past: "It is impossible to reproduce a mind-set, yet curators often attempt to convey something of the context of an object's production and original setting" (Newhouse 104). Borhegyi pioneered the site-specific treatment that is favored today, moving from the frame to whole rooms designed to contextually orient the viewer (please see page 9).

Museums and gallery spaces themselves constitute a unique context. Almost limitless in form and arrangement, they are nonetheless extremely controlled environments that are maintained to exacting specifications:

> "Except for isolated instances, the typical museum experience is one of viewing images in sequence, that sequence being sensed by a walking observer meeting static objects. ... This fact is likely to influence strongly the impact objects make on us whenever they are seen in a museum. ... The way any sequence is controlled or is free is thus likely to alter our awareness of objects and especially their initial impact" (Brawne 10).

Research

Museum, Exhibition and Gallery Studies continued

The viewers' experience, the order in which they see works, the floors that they walk on, the text available to read, and even the air temperature, are all carefully monitored and controlled in a gallery or museum. This is because curators and exhibition designers generally agree that all of these contextual factors greatly impact viewer reception and interpretation. Those environmental factors controlled by museums and galleries fall into two categories, tangible and intangible.

Which tangible factors (light, wall height, etc.) most directly establish physical context?
Which intangible factors (time, sound, climate, etc.) establish physical context?

Display Variables

A number of texts outline and list display variables and other elements that can affect viewer interpretation in the museum setting. The following is a list of such variables in the order that they appear in each text:

From Victoria Newhouse's *Art and the Power of Placement*	wall texture wall color frames	labels wall length scale	light juxtaposition pedestals
From Michael Brawne's *The Museum Interior*	walls screens floors	ceilings pedestals showcases	lighting temperature, humidity air pollution audio-visual media
From Michael Belcher's *Exhibitions in Museums*	orientation circulation humidity lighting	color pacing and contrast texture scale	shape arrangement movement temperature
From William Hayett's *Display and Exhibit Handbook*	framing hanging hinges	height base material finishing	mounting typography lighting motion

While the authors elaborate in varying levels of detail about the definitions of each specific term, simply listing the variables allows for an easy comparison across texts. A selection of display variables from the lists on this page ultimately becomes the seed for the list of graphic design display variables found in the Synthesis section on page 50.

Research

Museum, Exhibition and Gallery Studies continued

How can context shape viewer interpretation of a design solution?

The discipline of museum, exhibition and gallery studies has a large overlapping component with the field of visual communications, or the study of how viewers interpret visually observable information. Studies have collected data on the effects of a number of display variables, from hanging height to wall color, in an effort to uncover how context influences interpretation. An indoor context, especially a museum, is relatively easy to modify and is for the most part static. These qualities make it perfect for the controlled study of context and visual communication. Much of the data that apply in a museum can also be relevant for graphic design solutions displayed in a range of indoor environments.

True of both the museum, exhibition and gallery studies and graphic design disciplines, the most immediate contextual elements undoubtedly have the most direct effect on the viewer's interpretation of the solution. In most cases, "the elements which are most immediately involved are walls, showcases, ceilings and floors. It is precisely these parts of an enclosure which make up the middle scale and which will closely affect what we see when we look at the material put on view and its surrounding surfaces" (Brawne 38). Of these elements, it seems as if horizontal and vertical surfaces are the most important, serving as the backdrop for most solutions, either handheld, floating or mounted:

"An observer standing in a relatively small space is always likely to have a considerable part of his field of vision occupied by vertical rather than horizontal surfaces. This is a fact which results from the position of our eyes and the cone of vision. Only in large open spaces do the converging planes of floor and ceiling become dominant. The wall, moveable panel, or its equivalent, are therefore the surfaces against which inevitably a great proportion of the material on display will be seen even if it is not fixed to that vertical surface" (Klein 71).

Horizontal and vertical surfaces shape our sense of space. Therefore, for hanging two-dimensional art in an exhibition and for hanging a graphic design solution, the display of a solution on these surfaces becomes a primary concern. The hanging height, as well as the general aesthetics of the space, especially wall texture and color, fall within the cone of vision and are thus important.

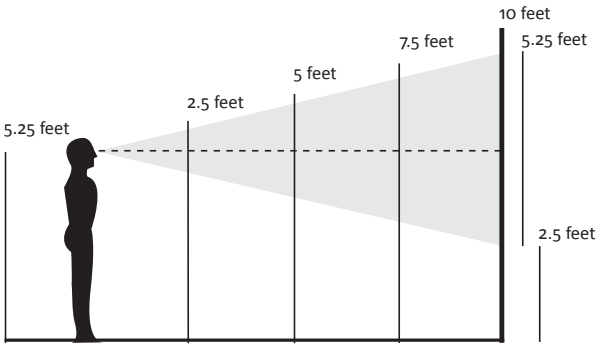
Research

Museum, Exhibition and Gallery Studies continued

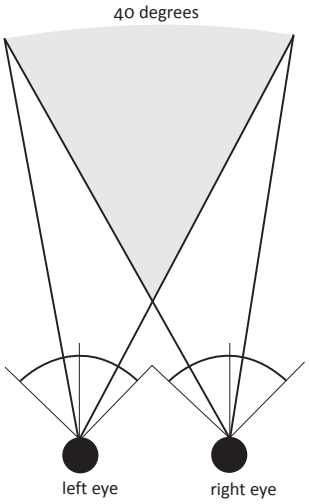
The Cone of Vision

Given the dimensions of the average person, it is possible to establish the normal limits of horizontal and vertical vision. A viewer of average height standing 10 feet away from the solution will focus the majority of his or her viewing energy in a vertical section of wall equal to his or her height and roughly three feet off of the ground. On the horizontal plane, an average viewer can glance 45 degrees in either direction, adding up to a constant viewing perception equal to 40 degrees of the entire 360 degree spatial panorama (Klein 71). These horizontal and vertical limits of vision are described as "the cone of vision."

The cone of vision defines which specific areas of the environment are the most essential to consider if examining context, and also gives clues to the display variable of height. Just as gallery curators do, graphic designers should analyze the average audience member and modify design solutions according to the cone of vision. Conversely, solutions can be intentionally placed outside the cone of vision to draw attention through incongruent means.



The Vertical Cone of Vision
(Based on Klein 71)



The Horizontal Cone of Vision
(Based on Klein 71)

Research

Museum, Exhibition and Gallery Studies continued

Art Objects and Context

Specific examples of paintings or sculptures that have been relocated from gallery to gallery, or moved within one gallery, demonstrate how context can truly shape the viewing of a solution or object. Changes to the viewing environment of a painting can be as subtle as rotating paintings within a room. More complex alterations of viewing environment involve changing wall color, changing the floor and surface texture or adding more artwork and furniture. The most extreme changes in viewing environment occur when a work is physically relocated from one space to another, or one gallery to another. Often, the display conditions at a painting's "new home" differ greatly from the original site, having either detrimental or beneficial effects on the viewing of the painting.

Take, for example, the modernist masterpiece *Déjeuner sur l'Herbe* by Edouard Manet, first put on display in 1947. Originally, it was housed in a softly-lit, richly colored room at the heart of the Jeu de Paume in Paris. The walls were fabric, the floors were wood, and the painting was surrounded by other Manet works of the same period.

Déjeuner sur l'Herbe
Jeu de Paume, 1947
(Newhouse 218)

Research

Museum, Exhibition and Gallery Studies continued

Déjeuner sur l'Herbe
Musee d'Orsay, 1986
(Newhouse 219)

The painting was moved in 1986 to its new home at the Musee d'Orsay. There, it was placed in a large sky-lit exhibition hall on the top floor, intermingled with many other impressionist works from Manet and other artists.

"The *Déjeuner* was shown alone on its own centrally placed panel, which was faced in pale ochre stucco veneziano (towel textured plaster). ... The stark overhead natural light, harsh even for Impressionist paintings that thrive on tempered daylight, was even harsher on Manet. The more subtle illumination of the older museum was a sad loss. The new placement of *Déjeuner* is less commanding than before" (Newhouse 219).

Most critics agreed after the move that the new display conditions at the Musee d'Orsay were not as favorable as the older context at the Jeu de Paume, and did not flatter the painting. If changes in display, presentation and context have a noticeable impact on the aesthetics and reception of a painting, perhaps the same is true for a graphic design solution that exists across numerous sites. An understanding of context is also prudent for the graphic designer first assessing the attributes and constraints of various viewing locations during the planning phases of a design problem.

Research

Museum, Exhibition and Gallery Studies continued

Significance to this thesis study

Data-rich studies of display factors (for instance hanging height and the cone of vision), as well as environmental factors (such as the reflectivity of the wall colors and textures) demonstrate how context can shift a viewer's interpretation of a solution. The graphic designer should be concerned with those aspects of the environment that can be controlled, as well as those than cannot be. In spaces where environmental characteristics cannot be altered or manipulated, the designer must work within the boundaries and constraints of the preexisting site conditions.

Museum, exhibition and gallery studies prove that site-specificity is a powerful tool. Period rooms and the introduction of historical context provide additional information helpful for viewing a particular object or artifact. Although this replication of historical context differs greatly from the real-time cultural context unfolding outside, it assists the viewer in establishing a frame of reference. Certain graphic design solutions, such as didactic solutions, can include additional design components that extend the physical and historical contextual information similar to a period room in a museum context (especially when the graphic design solutions are placed in a controllable, indoor space). While it is standard for museums and galleries to present period rooms and cultural contexts to strengthen the meaning of an object, graphic designers should consider supplying historical and cultural context where appropriate to the particular message-making goals.

Research

Interior Design

Interior design differs slightly from the previous discussion of museum exhibition design and gallery studies and correlates most closely to the discipline of architecture. A focus on shaping and controlling the built environment, as well as anticipating how an audience member will respond to that environment, are major concerns of both disciplines.

As with other disciplines, interior design also assesses, and subsequently attempts to control, various environmental elements. The difference is that interior designers have the distinct advantage of permanently reshaping a space and often times can have an unfinished room to start with. Interior design creates interior contexts to suit the specific functions of a space on a micro level. This differs from architecture, a discipline that shapes space on a macro level: "The interior designer is not likely to be involved in building layout. ... Rather the interior designer usually inherits a room or space and must do space planning and furniture arrangement within the given conditions" (Guthrie 43). Interior design lies on a scale midway between graphic design and architecture in terms of macro and micro interactions with context.

Elements, Principles and Essential Components

One of the basic methodologies of interior design involves breaking down the design of an interior space into its essential components and characteristics. The eighth edition of *The Beginnings of Interior Environments* by Phyllis Sloan Allen, Miriam F. Stimpson and Lynn M. Jones provides an elaboration of this process. The building blocks of good design are highlighted and described in the text, and also replicated in brief below. The authors state "The elements of design and the principles of design form the basis for all design... [they] help the designer create an interior that is physically and psychologically comfortable as well as uniquely attractive" (75).

Elements	space	color
	line	light
	shape and mass	pattern
	texture	

Principles	scale	rhythm
	proportion	emphasis
	balance	harmony

Harmony is especially interesting for the purposes of this thesis because it relates to discussions of congruity and incongruity found in the Synthesis section: "Harmony is the unique blend of unity and variety. A unifying theme or common denominator should run through all component parts and blend them together, yet the aspect of variety is essential to provide interest. Variety can create the focal point or add the spark that enlivens the room" (Allen, Stimpson and Jones 74). While some elements may harmoniously interact with the surroundings, variety and difference can be used purposefully to create interest.

Research

Interior Design continued

Other authors also attempt to break down interior design into its essential components, but in a less abstracted way. Instead of discussing the somewhat vague principles and elements outlined on the previous page, Pat Guthrie presents a list of essential components in her text *The Interior Designer's Portable Handbook:*

Essential Components			
	acoustics	insulation	artwork and accessories
	color	doors	window treatments
	ceilings	windows	furniture
	stairs	hardware	rugs and mats
	railings	paint and coatings	interior plants
	cabinets	wall coverings	lighting
	surfaces	fabric	

Much like museum, exhibition and gallery studies, interior design deals interactions between audience, space and perception. Many of the essential components listed above are also considered across related disciplines.

Visual and Sonic Space

Interior design also refers back to the cone of vision discussed on page 27. Treatments of the cone of vision in interior design are similar to definitions presented earlier in this thesis documentation.

"Outside of a very small area of precise vision there is a broader area of peripheral vision. In this range our perception of detail and color becomes successively less certain as it moves away from the center of vision, ... Within the central portions of the field of view, changes in brightness, pattern, and intensity are discernible. In this area the eye is relatively sensitive to flicker and movement. Peripheral vision influences the room occupant's ability to maintain a sense of general orientation and a relationship to the dynamic activities in the space" (Wilson 16).

Along with visual components, the sense of sound is also an important consideration in the "reading" of a space: "As sound bounces from walls, floors, and ceilings it sends messages which define interior space" (Wilson 14). For example, a room with upholstery, furnishings and rich fabrics "prompts a different perceptual response" (Wilson 15) than one that is treated sparsely with plenty of open space. Although the sense of sight is arguably superior in a viewer's perception of context, sound also dictates our reaction to a space, and is often harder to control.

Significance to this thesis study

Those essential components outlined above not only establish interior, physical contexts, they also correlate with the elements and variables that influence graphic design solutions. Many of the elements, principles and essential components outlined by authors in interior design form the basis for the list of incongruent elements and variables found on page 50.

Research

Site-Specific Art

What can graphic designers learn from public, land, destination and installation art?

Perhaps the most well-known and best-cited areas of site-specific art are public art, land art, destination art and installation art. As the umbrella title implies, all four art genres are defined by the same element: site-specificity. Site-specific works are created for one particular viewing context and would lose some degree of meaning if ever relocated. More than this, however, site-specific art does not just sit on top of the landscape, it is deeply rooted within it, "not depicting the landscape, but engaging it... not simply of the landscape, but in it as well" (Beardsley 7).

Site-specific art is an extremely broad grouping that has numerous and multiplying subcategories and manifestations, including but not limited to the four main subcategories listed above. Due to dramatic interactions with context, many examples of site-specific art are public, large-scale, and attention-grabbing. Just as many examples, however, are subdued, quiet and slightly understated, and may not exist in a public space at all. Site-specific art, therefore, is versatile and potentially limitless in its possibilities. Some works may fall into more than one category, further complicating a potential taxonomy of site-specific art. One piece could simultaneously be an example of public art, land art and destination art, as in the case of *The Lightning Field*. The possibility of one work existing in multiple disciplines speaks to the overlapping concerns and motivations of the four disciplines.

The Lightning Field
Walter De Maria
1977
(Beardsley 60)

De Maria's *The Lightning Field* is concurrently public art, land art and destination art.

Graphic designers can look to examples of site-specific art from a number of subcategories for inspirational uses of context, site and environment. The following is a brief description of each main subcategory of site-specific art, with connections to the most applicable and adoptable principles that have significance and use to graphic designers.

Research

Site-Specific Art continued

Public Art

There is a long history of public art that extends for centuries. In fact, some of the finest examples can be traced back to the ancient world: the Karnak temple in Egypt built in 1470 BC, or the Parthenon in Greece erected in 500 BC, or even the Temple of the Incas at Machu Picchu constructed around 1500 BCE (Redstone v). All of these impressive, large-scale structures have something in common besides age. All four projects were created for the public to enjoy, not for a specific audience but for the masses.

Public art is perhaps the broadest category of works that fall under the site-specific label. In the most general sense, public art encompasses all pieces of artwork, both two and three-dimensional, intended for a public or mass audience. Public art is often placed in a sculpture park, a site within an urban context that is typically "marked off as an enclave within the public arena, where the tastes, expectations, and politics of the everyday can be set aside in favor of experimentation, exploration and innovation" (Barrie 10). Just as many examples, however, can be found in urban courtyards, street corners, and other spaces not designated for art.

Public art enjoys a unique relationship with its audience. Placing a sculpture in an urban or unrestricted context greatly alters viewer interpretation. This forced-situational viewing can also be found in graphic design, where solutions are often presented for large audiences of people in a public context:

"There is a significant difference between exhibiting works in a gallery where viewers specifically come to see them and placing artworks in a multi-purpose context where the public often has no choice about experiencing them. Consequently, the public artist must consider how the work will change the appearance and function of the space and affect those who use it" (Tannenbaum 3).

Significance to this thesis study

Much like public artists, graphic designers take the intended audience of their solutions into account. In many cases, the audiences of graphic design and public art are almost identical: the passerby, the every-person. In addition, perhaps because of the relative longevity of their solutions, public artists seem to focus to a greater degree on the effect that their work will have on a viewer, and on the site, over time. The context of a graphic design solution impacts the site and audience, and also has the potential to shift or change with cultural context.

Bell Sprout
Ming Fay
Soho
(Barrie 48)

This site-specific urban sculpture is an example of contemporary public art.

Research

Site-Specific Art continued

Wave Field
University of Michigan
1995
(Beardsley *Earthworks* 195)

One example of dramatic land art situated in a public campus context.

Land Art

Land art, also known as earthworks, are large-scale natural works that focus on transforming an outdoor environment. Because of the nearly unlimited possibilities of the natural sites chosen, land art is almost always created on an impressively large scale. As with public art, land art enjoyed ancient success as well as a resurgence in the 1960s and 1970s.

Land art does not simply exist as an addition or addendum to the landscape. Earthworks in some way fundamentally change or alter the landscape itself, either through the movement of soil and foliage, the reshaping of rock or stone, or removal of large sections of earth. This dramatic, permanent reshaping of the environment creates a new site, different from the original one and intertwined with the larger space. In essence, earthworks generate a context all their own:

"Their physical presence in the landscape itself distinguishes them from other, more portable forms of sculpture. But the involvement with landscape goes deeper than that: most of these works are inextricably bound to their sites and take as a large part of their content a relationship with the specific characteristics of their particular surroundings. Although most of them could have been made in any one of a number of similar locations, these are not discrete objects, intended for isolated appraisal, but fully engaged elements of their environments, intended to provide an inimitable experience of a certain place" (Beardsley *Earthworks* 7).

It is this close and unbreakable relationship between land art and context that is most interesting for the purposes of this thesis.

Significance to this thesis study

Graphic designers can learn much from the dramatic scale of earthworks. Often, these pieces of art are so large and stable, they could not be moved to another location (even on the off-chance that one of equal suitability were found). This dramatic, permanent quality of land art makes it awe-inspiring to the viewer and creates a real, tangible impact. Although examples of large-scale graphic design already exist, perhaps graphic designers could further explore the scale of their solutions, as well as alterations of existing site qualities and possible permanent site relationships. Much like land artists, graphic designers should consider how they wish to shape the site, as well as how the addition of their solution will alter the original viewing context.

Research

Site-Specific Art continued

Little Sparta
Sculpture Park
Ian Hamilton Finlay
1966–2006
(Dempsey 70)

An example of destination art in one of its many forms: the addition of monolithic, carved stones to the landscape.

Destination Art

Destination art, as a larger category, consistently overlaps with the areas of public and especially land art. Many examples of destination art can also fall into the categories of public and land art simultaneously. While any work of art can take the viewer on a visual journey, destination art provides a literal, tangible journey as the viewer must travel to the site of the solution: "These works will not be coming to a museum near you. They are works that you have to travel to and meet in their own space and on their own terms" (Dempsey 7).

Like land art, destination art also refers to mostly large, dynamic sculptures that interact with their surroundings on one or more levels, again with a focus on environmental specificity: "Destination art is art that must be seen *in situ*, and the term recognizes the impact of the art's context, that the location is an important part of experiencing and understanding the work" (Dempsey 7). Destination art likewise views the context of a work as both material and site (Dempsey 8). That is, the same materials and textures that make up the surrounding context often appear, or at least inspire, the interior content of destination art.

While on the surface land art and destination art may appear to share the same criteria and definition, in reality they are two distinct movements distanced by nearly 30 years. In addition, destination art exists in urban and rural contexts, where land art almost exclusively resides in open and untouched spaces.

Significance to this thesis study

Destination art takes advantage of all the inspirational qualities that a site has to offer, from materials to form, situation and setting. This uninhibited and unrestrained utilization of the environment, site and context can be inspirational to graphic designers. Beyond this, destination art is additionally powerful because it is the sum total of many components: the journey, the site, and the piece of art itself. This view of the solution as a totality of viewer experience, not just a single object devoid of any context, opens the door for a more complete definition of artwork that relies on both the artist, solution and viewer.

Research

Site-Specific Art continued

Installation
Annely Juda Fine Art Studio
1990
(Benjamin 7)

This is an example of a contemporary indoor installation, composed of numerous smaller elements.

Installation Art

Many authors dealing with the theories of installation art connect back to a long, fruitful history: "the framed painting, the portable commodity, is a relatively recent phenomenon in Western art. Going back in time and tracing successive civilizations, it is clear that until roughly the seventeenth century art was almost invariably and inextricably interwoven with architecture" (Forsha 8). This long, historically bound connection to the built environment is the cornerstone of installation art. While public, land and destination art are often situated in an outdoor context, installations are site-specific art geared almost exclusively for built, indoor spaces.

While the history of installation art has ancient roots, for example cave paintings that utilize cave wall texture as a design element, a contemporary history often begins with "El Lissitzky, who created the first installation, the *Proun Environment* in 1923. He alluded to the notion of space as a physical material, with properties similar to that of stone or wood. Space could therefore be turned into a form, a legacy still clearly visible in contemporary installations" (Gooding 7). Shaping space, especially interior architectural space, is a continuing concern for installations of all kinds. Installation art is viewed from within: the audience enters it, exits it and sometimes physically engages with it:

"Installation art... has a desire to heighten the viewer's awareness of how objects are positioned (installed) in space, and of our bodily response to this. A work of installation art, the space, and the ensemble of elements within it, are regarded in their entirety as a singular entity. Installation art creates a situation into which the viewer physically enters, and insists that you regard this as a singular totality" (Bishop 6).

Many authors point to the fact that an installation is an additive whole, and gains power from the interactions of its individual components: "Installation art is its parts in relation to each other but is experienced as a whole. Installation art is greater than the sum of its parts. Installation art is based in the aesthetic experience that in the end cannot be fully described, depicted, recorded or explained" (Gooding 11).

Research

Site-Specific Art continued

Significance to this thesis study

With the exception of some billboards, outdoor posters, and large-scale graphics, most graphic design solutions exist within the built environment. Installation art has a unique relationship with the indoor world, often shaping and molding it to create new, unexpected viewing contexts. Some graphic design solutions could potentially benefit from unexpected placements in the built environment, or even the further alteration of an indoor space.

In addition, installation art is often composed of numerous smaller elements, parts or pieces that join together to build up a larger theme. Just as destination art acknowledges the journey as an important psychological component of a work, installation art is often comprised of one or more physical components that are all important to the total. Graphic design systems, or planned groups of graphic design solutions, could be more effective if inspired by the inventive and unexpected relationships between various elements of installation art.

As a whole, site-specific art consistently and deliberately addresses issues of context, as both an aims and as necessities. Of particular relevance to the area of graphic design is site-specific art's use of relationships between interior elements, relationships across external elements, relationships with either the built or natural environment, as well as the actual alteration of the viewing site itself.

From architectural programming to the cone of vision, wayfinding to site-specific art, it is clear that artists and designers are talking about, thinking about and examining the possibilities of context. A survey of literature from the last 50 years (or so) reveals that most of the work to define, analyze and establish context has been achieved in disciplines related to graphic design. The methodologies, processes and solutions of these disciplines can inform the beginnings of a study of context that is specific to graphic design.

While the theories, processes and techniques discussed above form an important cornerstone for a comprehensive analysis of context, visual examples are perhaps the most vital evidence of context across disciplines. The images provided in the Synthesis section, pages 51 through 85, not only strengthen the previous discussion of related disciplines, especially architecture and site-specific art, but also enumerate the various ways in which current graphic design already embraces context.

Synthesis

Architecture

As outlined in the Research section on pages 20-22, architectural programming takes site and context into account as vital, preliminary concerns in the problem solving process. While graphic design, especially environmental graphic design, does the same, it is to a more limited extent. The following is a list of five of Peña's most important context-driven programming procedures taken from *An Architectural Programming Primer* and modified to suit the needs of a graphic design solution instead of a building.

1. "Analyze the existing site conditions to include: contours, views, natural features, buildable areas, access and egress, utilities, size and capacity."

Adaptation for graphic design problem solving

Analyze the existing site conditions to include wall and floor materials and textures, views from all levels, railings, approach and access, lighting, and general circulation.

Architects examine tactile, measurable and quantitative data that reveal specific aspects of their site: climate, soil, surrounding architecture, the flow of people and vehicles. This kind of data can also be relevant and helpful to other disciplines. Analyzing the site or sites of an intended design solution, with an emphasis on lighting, traffic flow, flooring and wall materials, could be similarly helpful for the graphic designer.

2. "Evaluate the natural features of the site and identify those to be preserved or enhanced."
"Analyze local material and the immediate surroundings for possible influences."
"Evaluate the historical significance of neighboring buildings."

Adaptation for graphic design problem solving

Evaluate and analyze existing materials, natural features and the historic significance of the intended site for possible influences on the final graphic design solution.

Architects look to the site for inspirational materials, forms and naturally occurring themes. Considering existing context (physical, cultural, and historical) strengthens both an architectural building and a graphic design solution by rooting it in its surroundings. A specific solution can either rebel or conform, but the most compelling solutions in both disciplines respond to the existing context in some way.

Synthesis

Architecture continued

3. "Identify goals concerned with the flow of people and vehicles to provide a psychological environment with a sense of orientation or a sense of entry."
"Uncover the need for good orientation, maintaining a sense of direction through a building."

Adaptation for graphic design problem solving

Examine the psychological environment surrounding a graphic design solution, with an emphasis on approach, access and readability.

Architects address user needs and how a user accesses, enters and navigates a built space. Many of these same concerns are inherent in the subdisciplines of wayfinding and environmental graphic design. A graphic design solution can be approached in much the same way as a building, especially with respect to access, egress and traffic flow around the solution itself. Graphic designers can collect and utilize this information to expand readability and utility in a number of specific viewing contexts.

4. "Analyze the climate to include climatological data on seasonal temperatures, precipitation, snow, sun angles and wind direction."
"Evaluate the soil analysis report and determine the possibility of special foundations."

Adaptation for graphic design problem solving

Take into account climatological data, including wind, precipitation and sun if your solution is outside, and light, heat and flooring materials if your solution is inside.

Architects examine the impact of the natural environment on the total cost of the project, including how soil and climate can affect materials over time. Graphic designers should also consider how their solutions can weather and degrade. Pre-production planning for longevity and usability over time and different weather conditions can save client money.

5. "Evaluate policy concerning the neighboring community to uncover the concept of sharing or interdependence."

Adaptation for graphic design problem solving

Evaluate the potentials for congruence and incongruence between a solution and neighboring graphic design solutions, as well as the solution and the larger site.

Architects systematically address and examine how their solutions can potentially impact the natural environment, as well as surrounding architecture. The addition of either a graphic design solution or building to a site changes it, and the designer must be aware of this impact.

Synthesis

Tangible and Intangible

How can attributes related to context be defined for graphic design?

Each of the authors in the museum, exhibition and gallery studies included in the Research section has a unique opinion about which tangible and intangible variables are the most important to shaping viewer interpretation. Perhaps most interesting are the areas of overlap and agreement. See page 25 for a listing from each of four authors.

In a museum environment, all of the aspects of planning and creating an exhibit or period room can be carefully controlled and monitored. Although this level of control is not always present with a graphic design solution or solutions, display variables are similarly important to consider as they shape viewer interpretation. The following inventory represents those display variables that are the most relevant when applied to a graphic design solution:

Display Variables	Tangible	Intangible
	Wall Height and Length	Orientation
	Wall Texture and Color	Circulation
	Framing	Time
	Hanging	Movement
	Light	Pacing

It is impossible to predefine which variables will come into play for which specific graphic design solutions because the potential contexts in which graphic design exists are limitless.

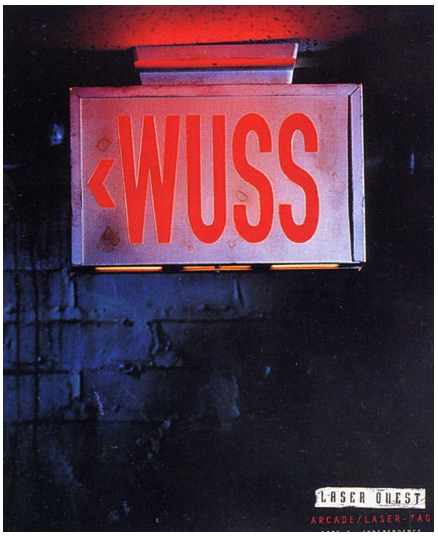
These variables and others are worthy starting points for a graphic designer to consider during the planning, production and post-press phases of design. Please note many of these same display variables reappear in this thesis as incongruent elements and variables in the Synthesis section (please see page 50). These elements and variables represent specific interactions between solution and site used by designers to establish either congruence or incongruence.

Synthesis

Conventions

Conventions are physical or conceptual formats that are culturally-agreed upon and charged with their own secondary meaning. The most recognizable formal conventions appear in labels, signs, and warnings (for example police tape or nutrition labels). Conventions carry expected and culturally-universal functions that are directly linked to their language, format and appearance.

To the viewer, any slight alteration in a convention can be significant. Take, for example, the below print advertisement for Laser Quest. In this advertisement, the verbal content of a normal exit sign has been unexpectedly altered with attention-grabbing and conceptually-powerful results. Conventions are relevant to the study of congruence and incongruence (please see page 44) because even the slightest adjustment of an attribute within an established conventional format is noticed by the viewer.



Laser Quest
Stephen Goldblatt, director
1999
(Davis 1999 161)

In this point-of-purchase display, the content is altered while the form is expected.

Fur Wearers Please Refrain
Darren Lim, director
Evolve Campaign
1998
(Davis 1998 118)

This is another example where the overall format is conventional, but the text content is unexpected and thought-provoking.

Synthesis

Conventions continued

Retail Consulting
Sue Crolick, director
1991
(Marshall 1991 656)

Particular kinds of labels have associated conventions, for example mailing labels and name tags. Here the designer has chosen to unexpectedly use the conventional format of a retail tag as the stationery and business card for a retail writer and consultant.

A Father's Duty
Leon Reid
2005
London, England
(Hundertmark 139)

In a conventional traffic sign, the figurative elements exist within the boundaries of the frame. Here the artist depicts two figures leaping from the frame and one freestanding on street level. This is an example of unconventional format.

On a general level these examples of conventions can also be described as incongruent, that is they demonstrate a specific type of unexpected relationship that relies on culturally ingrained format-meaning relationships. The following discussion of incongruence is more all-inclusive, attempting to access many possible unexpected relationships between solution and context, not just those that focus on breaking conventions.

Synthesis

Congruence and Incongruence

The terms of congruence and incongruence already have significance across disciplines including music and mathematics. This thesis expands the current definitions of these terms into broader adjectives that can be used to describe context-site relationships across a number of design disciplines. Congruence and incongruence become central in the following Synthesis section because they outline the expected and unexpected ways that a solution can interact with its context. The synonyms and related terms for congruity and incongruity are summarized below:

Congruence	**Incongruence**
Similar	Different
Conventional	Unconventional
Expected	Unexpected
Consonance	Dissonance
Harmony	Disjunction
Conform	Rebel

Congruence

In an assessment of the similarities between a solution and its context, congruence is correspondence across one or more points of comparison. Congruence offers the possibility for partial or full, parallel relationships, or limited degrees of correspondence on a particular scale or gradient.

As stated above, congruence has definitions in other disciplines. In mathematics, congruence refers to two numbers that have the same remainder when divided by a third number: 10 and 13 are congruent when divided by 3 because they both have a remainder of one. 10 and 15 are congruent when divided by 5 because they both have a remainder of zero. These math problems are similar to the definition of congruence outlined by this thesis because they embody similarity on one level, while simultaneously acknowledging difference on other levels.

Congruent objects, artifacts, buildings and solutions take advantage of the natural features of the site, replicating (to some extent) attributes of the physical or cultural context.

Aillwee Cave
A. and D. Wejchert
1979
Ireland
(Cottom-Winslow 20)

The architects of this visitors center have congruently used the local grey limestone to replicate the texture of the site and to activate the landscape as architecture.

Synthesis

Congruence and Incongruence continued

Syringe
Jes Brinch and Henrick Plenge Jokobsen
Cityscape Installation
1996
Copenhagen
(Osterby)

An example of congruence across content, format, presentation and context.

Syringe is an attention-grabbing, site-specific neon sign that hangs in the heart of Copenhagen's Vesterbro drug district. This clear and simple visual statement immediately conveys the intended message, figuratively dripping eye-catching neon blood onto the streets of Copenhagen's drug district from an oversized needle located above the viewer's head. Situating the piece in this specific context was a deliberate decision on the part of the designers. Interrelationships between content, format, presentation and site are essential to viewer interpretation.

Syringe represents a broader category of congruent site-specific solutions that harmoniously build interrelationships between format, presentation and context. Perhaps graphic designers creating solutions can learn from examples such as *Syringe* when looking to strengthen their designs by integrating all controllable aspects of the problem solving in a congruent manner.

Synthesis

Congruence and Incongruence continued

Incongruence

Conversely, incongruence refers to a difference on one or more levels of comparison. Incongruent solutions are clashing or unexpected in the context. Incongruence is perhaps most interesting because it uses context to draw attention, promotes closer inspection or conversation, and provides a strategy for extending and relating the message to untapped or alternative audiences.

The *Guggenheim* Bilbao, Spain demonstrates the potential power of incongruent format given the context of the traditional urban environment: the building refuses the conventions of a traditional museum. The material, shape, and texture of this building rebel against the site. The same processes at work here can be adapted across numerous kinds of graphic design solutions. From public to private, simple to complex, many solutions could potentially benefit from the inclusion of at least one incongruent relationship to draw audience attention where appropriate.

This architectural example is especially compelling because it stands for a larger body of work (across many disciplines) that takes advantage of unexpected relationships between the solution and site. The incongruence of the *Guggenheim* Bilbao, Spain specifically centers around an unexpected relationship between format and context: the modern silver shape contrasts with the traditional urban architecture that surrounds it. Other existing examples employ incongruent interrelationships between format, presentation and context. Analyzing and categorizing numerous such examples of incongruence becomes the main focus of this thesis study for the remainder of the Synthesis section.

The Guggenheim
Frank O. Gehry
1997
Bilbao
(Reichold 179)

Gehry's structure is a famous example of incongruent material, shape and texture.

Synthesis

Process

This thesis includes the collection and categorization of over 200 photographs of specific design solutions. Those selected represent the major disciplines of architecture (both public and private buildings across style and location), site-specific art (public art, land, art, destination art and installation art) and graphic design.

The first groupings of images focused on application – grouping of similar vehicles and formats including billboards, posters, books, annuals, invitations, etc. This was helpful as an intermediary, organizational step to ensure a wide range of examples across disciplines.

Each solution was then categorized as either an example of congruence or incongruence. Those that demonstrated an expected relationship with context were placed in one large group and those that demonstrated at least one unexpected relationship with context were also grouped together. The next step was to further divide these large, diverse groupings into smaller subcategories. A solution could be either congruent or incongruent based on content, application or display. These subcategories were then split into even smaller groups; for instance, incongruent application could either come in the form of unexpected material, color, size, etc.

Late December 2007 marked a distinct shift in this thesis. While each gathered example may be congruent in one or more ways, it was any noticeable incongruities that made each selection noteworthy or unexpected. Given this, the groupings of images were again restructured, this time to exclude the congruent examples and categorize each example based on its strongest incongruence. Those examples that successfully demonstrate unexpected contextual relationships form a partial-catalogue of techniques already used by architecture, site-specific art, graphic design and related disciplines.

Each major grouping of incongruent examples was composed of around 50-80 images. These large groupings, titled Content, Format (formerly Application), and Presentation (formerly Display) were then further compartmentalized into basic elements, and again into even smaller variables of these elements. The large groupings are broad in scope, designed to encompass every potential site-solution relationship. Each individual solution was analyzed and examined for the specific variable that made it most unexpected given the context.

Synthesis

Process continued

Card Groupings: Incongruence
(Sarah M. Kirchoff 2008)

This organizational system focused on the incongruence within each individual solution, grouping similar examples based on the strongest unexpected variables.

The structure of the above wall matrix was simplified and adapted to create the list of variables on page 50. Again, there is a focus on incongruence: while a solution can be both congruent and incongruent, expected in some ways and unexpected in others, the areas of incongruence are of primary importance for the purposes of this thesis study.

Synthesis

Process continued

The list on page 50 is the final result of a series of edited drafts. Perhaps the most conspicuous alteration between the final list and the wall matrix on page 48 is the deletion of the subcategory of content. Content consistently receded to the background of discussions of incongruence because it cannot always be controlled by the designer. While content is an important consideration overall, it is not the focus of this thesis.

This final list of elements and variables forms the basis of the descriptions and matrices on the coming pages. Each existing example examined for this thesis utilizes one or more variables in order to foster an unexpected, incongruent relationship with the environment. Put another way, variables are the specific ways that any given example can be incongruent with its environment.

This list also represents specific ways in which a solution can be congruent, expected and similar with its site. However because incongruence is the focus of this thesis study, congruent examples for each variable are not addressed in the coming discussion.

Synthesis

Process continued

Incongruent Variables

	Elements	Variables
Format	Material	Actual
		Implied
	Shape	Actual
		Implied
	Internal Orientation	Variable
		Upside Down
		Backwards
	Construction	Ephemeral
		Mixed Media
		Die-cut
		Implied Die-cut
		Transparency
		Altered Transparency
		Implied Transparency
	Color	Contrast
		Absence
	Texture	Actual
		Implied
		Mirrored
		Layered
Presentation	Placement	Overlapping
		Underlapping
	Scale	Enlargement
		Reduction
	Full Orientation	Variable
		Upside Down
		Backwards
	Display	Framing
		Hanging
		Disrupted Frame
	Movement	Actual
		Implied
	Distance	Proximity
		Viewer Height
		Solution Height
	Time	Sequence
		Growth
		Depletion
		Light and Shadow
	Sound	Actual
		Implied

Synthesis

Elements and Variables

As outlined in the previous section, elements are primary groupings under the main categories of format and presentation. Variables are further amalgamations of these elements: specific techniques that create unexpected interactions between a solution and its context. On the following pages are explanations of each element, with accompanying variables and visuals. Underlying this exercise was a desire to pare each solution down to its essential or characteristic qualities. These basic qualities represent how each example specifically interacts with its site.

It is especially important to remember that each individual example was originally chosen because it demonstrated an interesting, strong, or unexpected relationship with its context or surrounding environment. This is the thread that ties these many disparate solutions together, even across design disciplines as disparate as architecture, site specific art and graphic design.

The visual examples were chosen based on their clarity for elaborating each individual element, and represent a range of examples in different media. The strongest outside examples often lay in the fields of architecture and site-specific art. Existing graphic design solutions, especially billboards and large-scale graphics, are well-represented in great number because they demonstrate current and emerging contextual trends.

Please refer back to the chart on page 50 for a complete listing of all elements and variables discussed on pages 52 through 68.

Synthesis

Format Elements and Variables

Material

Actual

Implied

On a general level, and for the purposes of this thesis, material refers to the substance or substances that compose a given solution. Material of construction is one of the most basic ways that a solution can either be congruent or incongruent with its context and environment. Often, designers, architects and artists are influenced by natural materials in the surroundings, but just as often they choose materials that rebel against the context of the design solution, drawing attention, inspection and wonder.

Material can surface as either actual material or implied material. Actual material points to those solutions that are physically fabricated from an unexpected substance. Implied material encompasses those examples that replicate an unexpected material but are created using offset lithography and other printing processes.

Bluff
Roxy Paine
2002
Central Park
(Freedman 194)

Forged out of stainless steel, this sculptural tree is congruent with its site in every way except material.

Fruta Fresca
Edward Cebovin, director
1998
Brazil
(Davis 1998 370)

This exhibit invitation printed on an apple demonstrates how a graphic design solution can employ unexpected material.

Vic Chesnutt
Fred Woodward, director
1997
(Davis 1997 192)

This partial magazine spread imitates punched metal. Given the context of the magazine, this implied material is attention-grabbing.

Synthesis

Format Elements and Variables continued

Shape

Actual

Implied

Shape is the physical form that a solution takes, the volume and mass that it occupies in space. Unexpected uses of shape almost always play off the original form (for example, the solutions below respond to the expected shape of a beam, the expected shape of ice cubes, and the expected shape of a folded shirt).

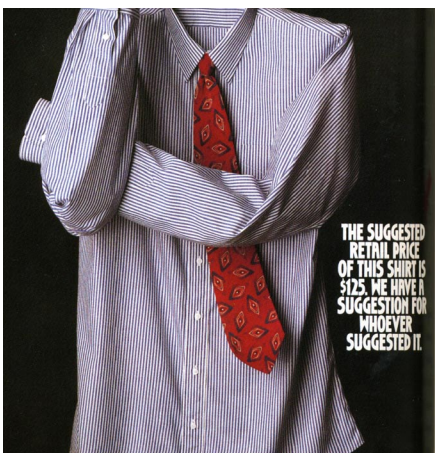
Shape consists of two variables: actual shape and implied shape. Actual shape involves the three-dimensional creation of an object. Conversely, implied shape refers to the two-dimensional replication or depiction of three-dimensional form.

Victoria Park
Howard Deacon
1990
England
(Foster 60)

This large-scale, site-specific sculpture uses the incongruent variable of actual shape. The beam has been unexpectedly bent into a ring, rebelling against the strait lines in the context.

Ahhhh!
Punlarp Punnotok, director
2004
(Davis 2004 344)

This ice cube tray includes the element of incongruent shape because the interior compartments form alphabetical ice cubes.



Suggestion
Sal DeVito, director
1994
(Miller 196)

This print advertisement is an example of implied shape. Obviously the page of the magazine lies flat, but the photographic image portrays three-dimensional shape through the posture of the shirt.

Synthesis

Format Elements and Variables continued

Internal Orientation

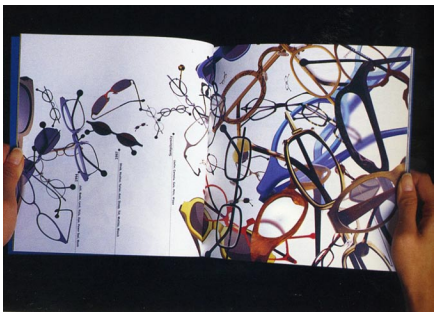
Upside Down

Reverse

Variable

Internal orientation, as both a general design term and for the purposes of this thesis, refers to the rotation of the internal elements of a solution in three-dimensional space. An internal attribute within the larger composition can be rotated in comparison to the plane of the page or horizon.

Perhaps the most common versions of altered or unexpected internal orientation are upside down, reverse and variable. Upside down refers to a rotation of 180 degrees, variable describes multiple orientations, and reverse involves flipping a solution horizontally. Please see page 63 for an elaboration of orientation as it relates to the entire solution (total orientation).



LA Eyeworks
Kipling Phillips, director
1998
(Davis 1998 282)

The pairs of glasses inside the advertisement do not follow any set orientation scheme. This is an example of variable orientation.

Lee Lites
Simon Bowden, director
1991
(Marshall 1991 13)

This is an example of internal orientation that is upside down (rather than variable). Notice that the orientation of the page itself does not change, only the rotation of one or more internal components.

BASE Opening
Paula Schaler
2005
Pittsburgh
(Davis 2005 248)

This folded invitation is another example of internal, variable orientation. The large group of cards held within the invitation is designed to fall on the floor and thus orient itself differently each time the solution is opened.

Synthesis

Format Elements and Variables continued

Construction

Ephemeral

Mixed Media

Die-Cut

Implied Die-Cut

Transparency

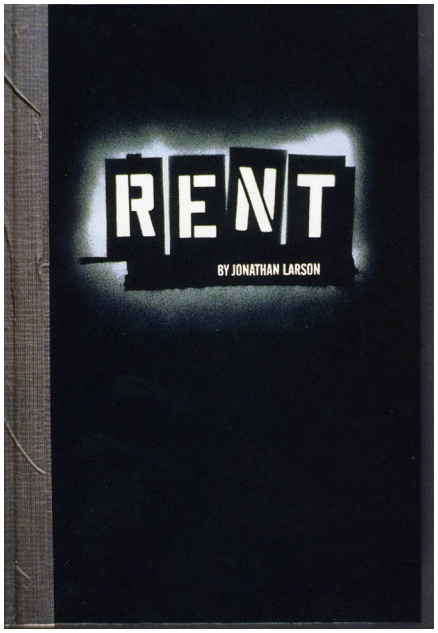
Altered Transparency

Implied Transparency

Construction is the means by which all of the qualities of a solution are realized: its physical composition, the way that it is created and its resulting structure.

Variables are specific approaches to construction that designers employ to create unexpected contextual relationships. The variable of ephemeral media refers to those examples that are composed of degradable substances, garbage, or materials destined for other purposes altogether. By comparison, the category of mixed media includes those solutions that are created by a combination of attributes, both found and produced. Mixed media solutions are strengthened by the differences between the materials, textures and aesthetics of the various components.

Many of the variables that previously resided in the Content category of the original wall matrix (page 48) have moved to Construction, especially those that deal with transparency and die-cuts. While the subject matter of these examples is important, it is the unique construction that especially allows for this content to be seen. Therefore, employing transparency and die-cut decisions is a construction approaches rather than a content concern. Transparency refers to those decisions that are literally windows to the context on the other side: either employing clear glass and windows, or implying transparency through the replication of the context behind the solution via photography or artist rendering. Altered transparency refers to a similar technique with one key difference: context is reproduced, but is altered, amended or changed in some way. Die-cuts can be viewed as taking transparency one step further. Solutions in this category are created with actual holes and spaces. The difference between die-cut and transparency is that a die-cut is not filtered through glass or other material.

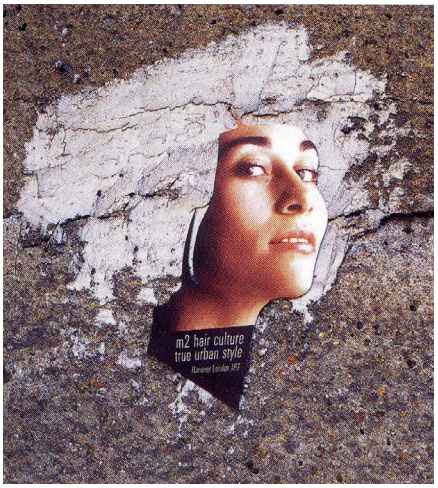


Playbill
Drew Hodges, director
1998
(Davis 1998 279)

Notice the cardboard and duct tape construction of this program from the Broadway musical *Rent*. Incongruity results from using unexpected, temporary media such as those depicted here.

Synthesis

Format Elements and Variables continued



Hairstyles
Olga Potempa
2005
Germany
(Davis 2005 171)

The unexpected construction of both existing paint and printed sticker make this solution incongruent and noteworthy.

The City Right Now
Brent Lomholt, director
1982
Denmark
(Parks 132)

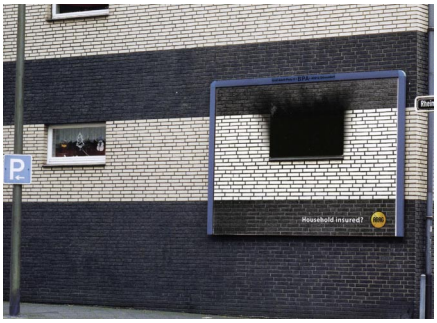
This billboard is a prime example of the use of transparency. By employing this variable, the surrounding context also becomes subject matter within the solution.

Contents
Giovanni Pellone, director
1997
(Davis 1997 428)

These trash cans are not truly transparent: they are not made of clear glass, and the viewer cannot truly see through them. The designer has used implied transparency to create the illusion that the content of the cans is visible from the outside.

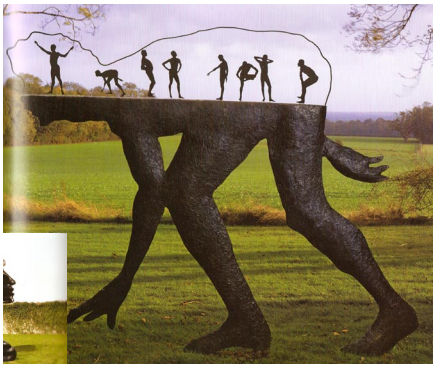
Synthesis

Format Elements and Variables continued



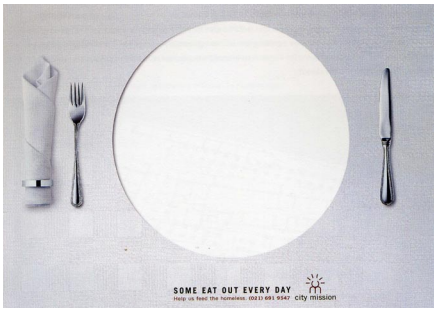
Fire
Frank Dondit, director
2004
Germany
(Davis 2004 173)

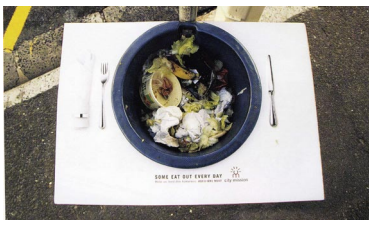
This billboard faithfully reproduces the wall context behind it, but adds the smoking window to draw viewer attention. This is an example of altered transparency.



Conversation Piece
Zadok Ben-David
1996
England
(Dempsey 179)

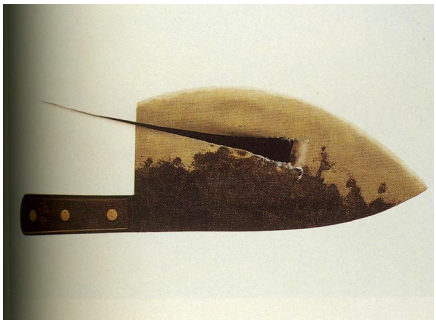
This is a prime example from a site-specific artist who used a die-cut and resulting silhouettes to create an interesting relationship between the sculpture and the horizon line.





City Mission
Teboho Mosothoane
2005
South Africa
(Davis 2005 126)

This is an example of a die cut in a contemporary design solution. The circular plate fits snugly over a garbage can.



Butcher Knife
Yuji Tokuda, director
1994
(Miller 306)

In this example the designer replicates the cut of a butcher knife through the page of a magazine. Implied die cut can be an important tool when true die cutting simply is not possible.

Synthesis

Format Elements and Variables continued

Color

Contrast

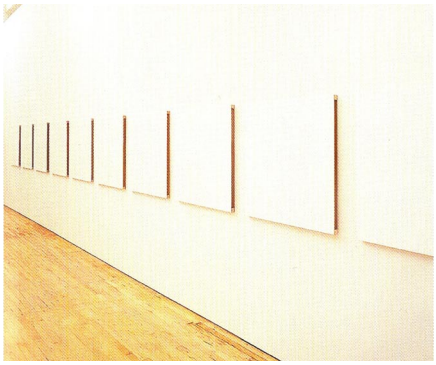
Absence

Color refers to the tone or hue of a solution. Color can be a powerful facilitator of incongruence between a solution and site. Tint, saturation and contrast are all considerations when addressing the element of color.

Graphic design and most other disciplines are already filled with examples of high contrast color: bright hues adding to an otherwise traditional palette. Perhaps it is those examples with an absence (unexpected elimination) of color that most readily and most powerfully demonstrate incongruence in contemporary design.

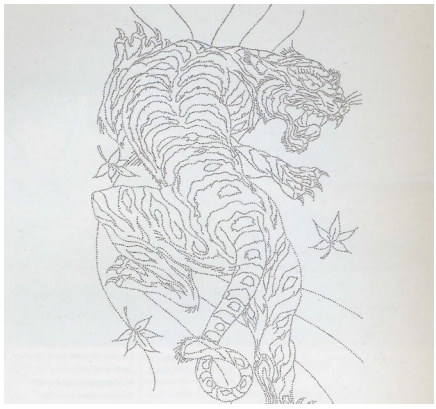
Untitled
Niort Metz
2005
France
(Hundertmark 164)

The addition of magenta camouflage in the knot of this tree demonstrates how the deliberate placement of high contrast color can be a powerful tool for creating incongruity.



Vector Series
Robert Ryman
2003
Dia:Beacon Gallery, New York
(Newhouse 233)

The absence of color in this gallery installation is most meaningful against a white wall as shown.



Led's Tattoo Tiger
Andre Nassar
1999
(Davis 1999 98)

This poster uses the absence of color to promote closer inspection. The lines of the tattoo are actually made up of letter forms, and the center areas, usually filled with vibrant colors, are white.

Synthesis

Format Elements and Variables continued

Texture

Actual

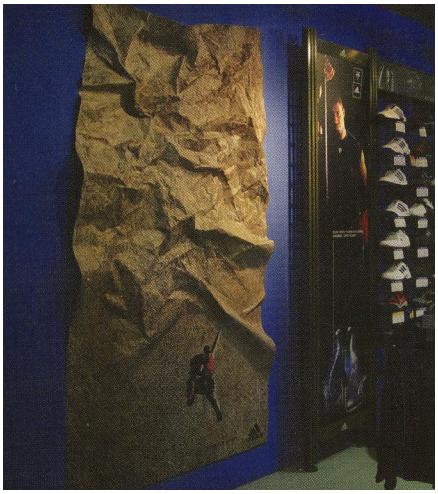
Implied

Mirrored

Layered

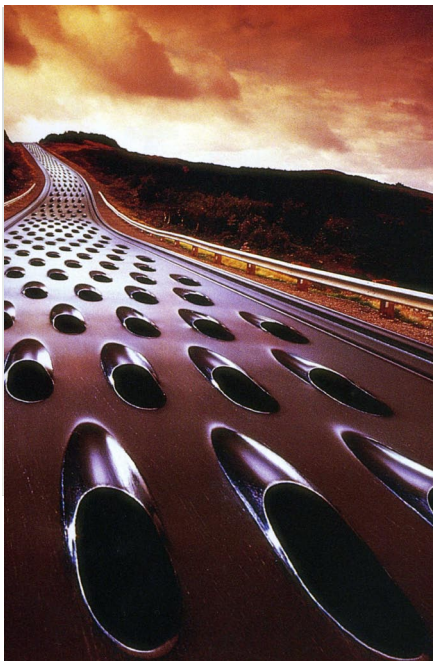
Texture is often linked to the sense of touch, but also has a visual component. Texture refers to the tactile surface of a solution, or visual decisions that suggest a recognizable feel.

Variables that fall under texture include actual texture, implied texture, and the more specific techniques of mirroring and layering. Actual texture refers to the creation of a deliberate, physical feel (for example, rough or smooth). Implied texture refers to the duplication of a tactile texture, especially one that is widely recognizable, onto a smooth surface. Those examples that fall under the variable of mirroring utilize highly reflective surfaces to transpose the surrounding context onto the surface of the solution. Layering creates a composite or collaged texture through the build up of many parts and components on top of one another.



Adidas Rock
Peng Ji, director
2004
(Davis 2004 72)

This point-of-purchase display demonstrates how texture can be integrated into a large scale graphic design solution.

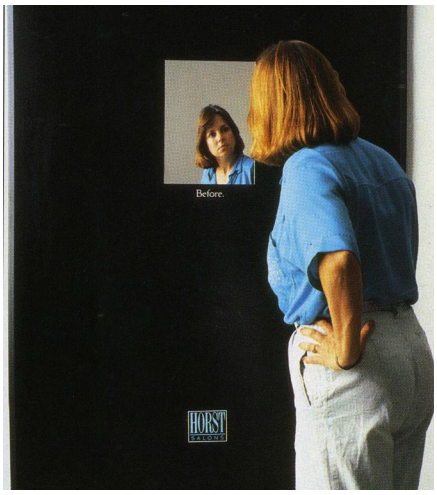


Cheese Grater
Randy Hughes, director
1998
(Davis 1998 113)

Although this magazine spread will not cut your fingers as you flip through the pages, the imagery choice makes the viewer stop and contemplate the unique implied surface texture of the road.

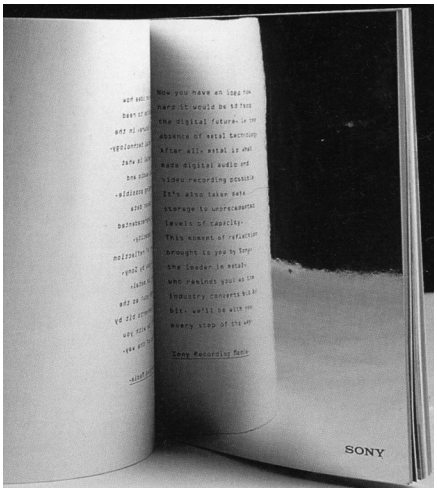
Synthesis

Format Elements and Variables continued



Horst Salon
Carol Henderson, director
1991
(Marshall 1991 176)

This transit poster uses a mirror to reflect the physical context, including the viewer, as the interior content of the solution. This solution is designed to use incongruence to draw the attention of the passerby.



This Moment of Reflection
Simon Bowden, director
1997
(Davis 1997 72)

The designer of this book includes a mirrored page that reflects the reverse type on the other side of the spread.

The Lost Wave
Daniel Tremblay
1984
San Diego
(Forsha 99)

This large site-specific installation is a conglomeration of numerous postcards layered on top of one another to create a more extensive shape that transverses the walls, floors and ceiling.

Synthesis

Presentation Elements and Variables

Placement

Overlapping

Underlapping

Examples that fall most readily under placement all utilize existing environmental features (lines on the ground, flora, parts of structures) as integral and unexpected components of the final design solution.

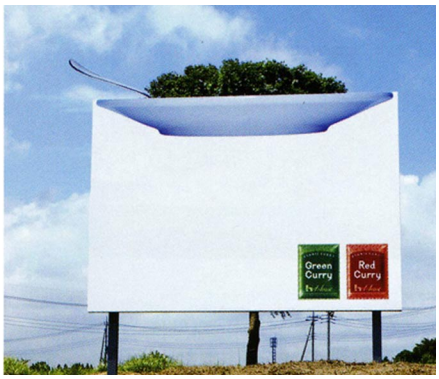
Crucial variables of placement are overlapping and underlapping. In the first, the solution exists in a plane closer to the viewer than the environmental elements that it uses. Conversely, "underlapping" is a term, created for this thesis study, that implies a solution that is deliberately placed behind one or more contextual elements.

Untitled
Unknown Street Artist
2005
Munich
(Hundertmark 22)

This is an interesting example of incongruent placement. The site-specific paper clip both overlaps and underlaps an architectural element in its surrounding environment.

Wall, Blonde
Luciana Cani, director
2004
Brazil
(Davis 2004 121)

This billboard is an example of underlapping. The existing plant material becomes a design component in the final solution.



Green and Red Curry
Nils Andersoon
2005
Japan
(Davis 2005 169)

This billboard illustrates overlapping because it uses the tree behind it as an element in the solution. Note that time is also a factor: as the seasons change and leaves turn red, the "curry" on top of the plate also changes color.

Synthesis

Presentation Elements and Variables continued

Scale

Enlargement

Reduction

Within this thesis study, scale refers to the size of the solution in relation to other objects that surround it. Incongruent portrayals of size often manifest themselves in unusual, unexpected or exaggerated scale shifts.

As defined by this thesis study, scale has two main variables: reduction and enlargement. Reduction implies a solution that demonstrates the unexpected shrinking of one or more elements. Enlargement refers to those examples that have components appearing proportionally bigger than normal in relation to their contexts.

Nudes 2001
Maya Rowe
2001
Los Angeles
(Davis 2001 38)

This billboard is a huge replica of a tiny museum label. Taking an object that is only a few inches wide and reproducing it hundreds of times larger than its original size is an unexpected shift in scale.

Stroll
William King
Philadelphia
(Barrie 84)

The placement of these huge figures in this large, site-specific sculpture demonstrates the power of enlargement by dwarfing the actual humans circling below on the boardwalk.

Writing Tools
Kevin Daley, director
1999
(Davis 1999 159)

The reduction of the human figure not only suggests the body as a tool in the writing process, it also incongruently draws attention.

Synthesis

Presentation Elements and Variables continued

Full Orientation

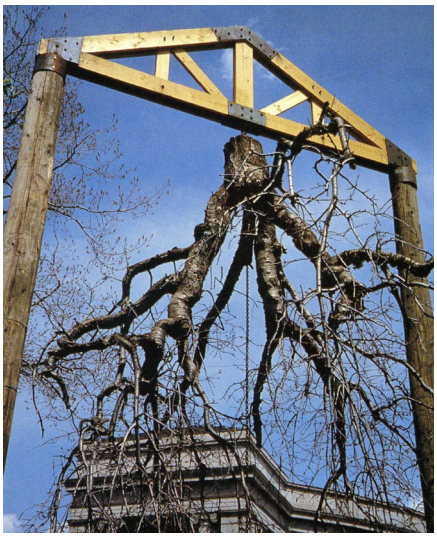
Upside Down

Variable

Reverse

For the purposes of this thesis study, full orientation refers to the full rotation of a solution in three-dimensional space. Full orientation necessarily involves the entire solution, not just specific internal components. Please see page 54 for a description of internal orientation.

Perhaps the most common versions of altered or unexpected orientation are upside down, variable and reverse. Upside down orientation refers to a rotation of 180 degrees in space, variable full orientation describes multiple orientations, and reverse orientation involves flipping a solution horizontally.



Camera Obscura
Martin Puryear
1994
Denver
(Beardsley 179)

Full orientation is a vital component of this site-specific sculpture. While the materials, color, size and basic shape of the tree are all congruent, its orientation in space (the decision to hang the tree upside down) makes the solution incongruent with the context.

IBM
Jeff Bretl, director
1991
(Marshall 1991 342)

To uncover all of the information printed on this cube the viewer must physically rotate and orient the sides in different combinations to one another.

Museum Wayfinding
Paula Schaler
2005
Pittsburgh
(Davis 2005 248)

This example unexpectedly utilizes reverse orientation to reproduce the look of the word *theatre* from on-stage.

Synthesis

Presentation Elements and Variables continued

Display

Framing

Disrupted Frame

Hanging

The element of display refers to the traditional areas of framing, matting, and hanging. There are a wide range of frames and hanging mechanisms available, from ornate and permanent to simple and subtle. While framing is often times considered an "extra" post-production choice, examples in this category consider framing as an vital component of the overall solution. Framing and hanging, by their very natures, are close to context because they form the bridges between environment and solution.

Variables under the element of display include framing (fully enclosing a solution in a border or case of some kind) and hanging (the process of suspending or attaching the solution to the context). The disrupted frame variable refers to those specific examples where an otherwise complete frame has been intentionally altered, damaged or destroyed.

Stains
Chris Garbutt
2005
(Davis 2005 175)

The designer has chosen to frame an existing stain on the ground with a simple, linear shape to draw attention to the stain-fighting abilities of the product advertised.

Cheetah
Mahle Kwababa, director
2004
(Davis 2004 115)

This method of hanging takes into account the fabrication requirements of the site, while also contributing meaningful hanging ropes and pole as other components in the solution.

Tree
Nico Juenger
2005
Germany
(Davis 2005 121)

This disrupted frame demonstrates how powerful this technique can be for drawing viewer attention, promoting closer inspection and conversation and strengthening the concept and intended message.

Synthesis

Presentation Elements and Variables continued

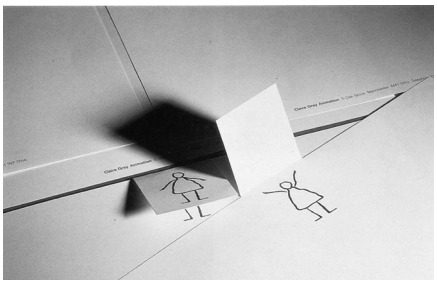
Movement

Actual

Implied

Movement centers around activity, change and progression. Related to sequencing and time, movement may employ several static events, or consist of one swift action. The solution and the viewer both have the potential to unexpectedly move. All of the following examples either require or represent the transfer of kinetic energy and the process of motion.

Movement may be implied via patterning and repetition. Conversely, movement can also be expressed directly through the inclusion of one or more components that physically changes positions within a given solution.



Claire Grey Animation
Viv Griffiths. director
1997
(Davis 1997 344)

Here, the solution and the viewer move: the audience member opens the flap on the stationary to reveal that the character has raised her arms.

Nike Shadow
Bernard Wall
2005
Canada
(Davis 2005 120)

The unexpected use of implied movement draws viewer attention to this striking Nike advertisement. The silhouetted figure implies the movement of the subject through the previous building.

Tefal Non-Stick Surface
1982
Germany
(Parks 184)

This is an example of implied movement: the advertisement intentionally slides out of the billboard frame.

Synthesis

Presentation Elements and Variables continued

Distance

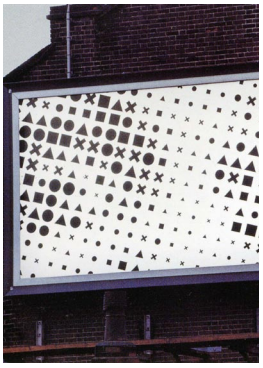
Proximity

Viewer Height

Solution Height

Examples that utilize unexpected distance take the space between audience and solution into account as a significant factor. Distance could refer either to the distance of the solution from a fixed point, such as the ground level or horizon, or also to the distance of the audience member from the solution.

Linear distance is a specific variable that focuses on the viewing distance between audience and solution across horizontal space. Varying the height of the solution in relation to the site and viewer, for example up high on a pole or low to the ground, also provides rich examples of incongruence. Examples categorized under the variable of viewer height take into account unexpected viewer placement either above or below a solution.



Dot Screen
Paul Belford, director
2001
London
(Davis 2001 80)

This billboard employs an unexpected use of proximity because the halftone image becomes more and more abstracted as the viewer moves closer (in other words, the audience must stand farther away to get a better look).

Trash Cans
Marie Lurst-Dorst
2004
(Davis 2004 124)

This is an excellent illustration of incongruent height given the context. Usually trash cans are affixed to poles or stand at about waist height. The unexpected placement of this trash can well above the standard zone of comfortable display commands viewer attention, as well as implies that Reeboks will make the wearer jump high enough to reach.

Here's Looking at You
Giny Vos
1996
Coppenhagen
(Osterby 111)

In order to view this piece of site-specific art, the audience must overlook the various components from above through a telescope.

Synthesis

Presentation Elements and Variables continued

Time

Sequence

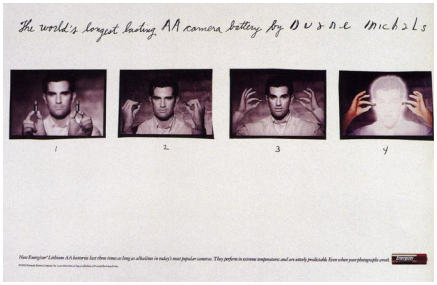
Growth

Depletion

Light

Unexpected relationships between context and time are perhaps the hardest to define due to the many, varied definitions of time. Generally, however, examples that fall into this category either literally employ the passage of days, hours, or minutes as a component of the solution, or likewise imply in some way multiple events that happen over a span of time.

As defined by this thesis, sequence refers to the ordering and numbering elements to appear one after another within a solution. Growth is slow addition of elements, most often in the form of plants or other physical, living or organic materials. Depletion is the subtraction of materials from the solution over time. The variable of light is often indicated by seasonal shifts, shadows or solutions that focus on the daily movement of the sun.

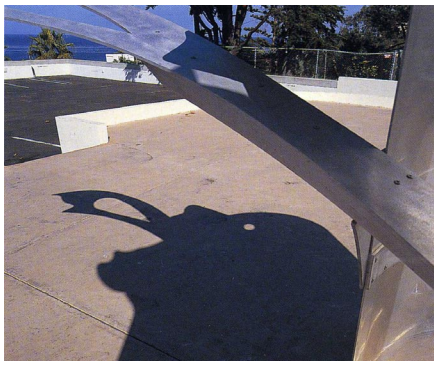


Energized
Duane Michals, director
2004
(Davis 2004 460)

This print advertisement shows an unexpected sequence: the figure places Energizer batteries in his ears to increase energy.

The Jungle Book 2
2004
(Davis 2004 124)

This book literally grows: the cover of this book about jungles is designed to sprout under the right conditions, and thus its appearance changes over time.



The Fountainhead
Mac Adams
1989
Sculpture and resulting shadows
(Forsha 123)

This sculpture extends into its context via moving shadows cast by natural light interacting with the statue during the day.

Synthesis

Presentation Elements and Variables continued

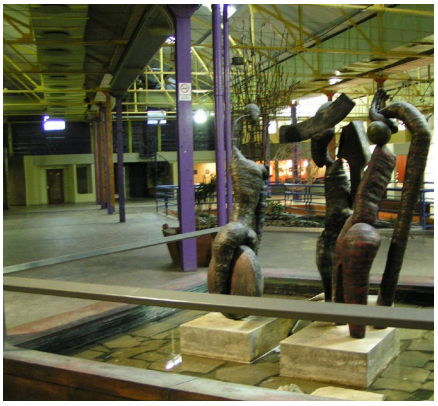
Sound

Actual

Implied

Sound encompasses those examples that either produce or duplicate the creation of tones, noise or speech. Sound differs from many of the other presentation elements discussed because it is not visual, but rather relies on the sense of hearing.

Unexpected variables of sound manifest as either actual sound, tones that are audible to the human ear, or implied sound, a visual depiction of sound waves or noise through expressive means such as color and line.



Fork
Mitchell Messina
2001
Rochester New York
(Sarah M. Kirchoff 2008)

This piece of site-specific art is located on the top floor of a converted warehouse space. Running water flows from the roof through a small hole, splashing into the basin of the sculpture below. Rocks are intentionally placed to amplify the sound, drawing viewers in for a closer inspection.

Quebec
Detail of a promotional poster
Luc Parent, Director
1992
(Marshall 1992 549)

This is a prime example of implied sound, achieved through the use of vibrant color, strong line and graphic music notes. Even the scripted letter forms imply speech or singing through fluid forms.

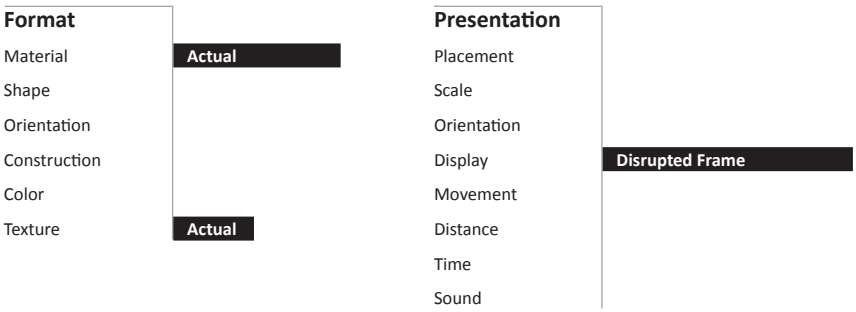
Synthesis

Comparative Charts

Many of those solutions found on pages 52 - 68 fall under more than one categorization, and utilize multiple variables. Therefore, an all-inclusive comparative chart that allowed for the identification of many possible contextual relationship seemed to be the ideal next step for analyzing individual solutions, as well as aiding in the comparison of solutions across disciplines.

On pages 70 - 85 each solution is presented along the left side of the page, with an accompanying comparative chart at the right. The strongest incongruities of either format or presentation are represented with the longest black bars. Those variables that are less important incongruities are symbolized with shorter bars. The variables that do not apply to a certain solution have no bars.

Sample Comparative Chart
Sarah M. Kirchoff 2008

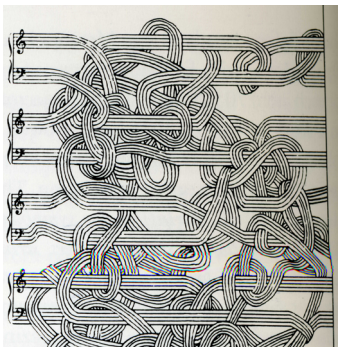


In the above sample Comparative Chart, the presentation variable of disrupted frame is the most unexpected and incongruent, and is represented with the longest black bar. Actual texture and actual material are lesser incongruities, and thus are represented by shorter black bars.

The Comparative Chart allows for the organization, categorization and synthesis of examples from many disciplines. The chart can simply shed light on the many incongruities found in each individual example or go further to demonstrate the relative degrees to which each variable is unexpected (incongruent).

Synthesis

Comparative Charts continued

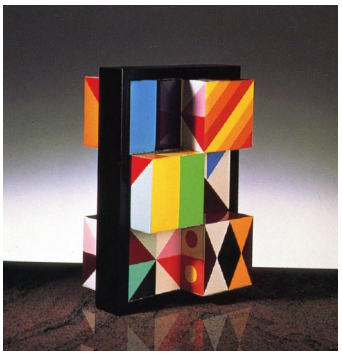


Jazz
1960
(Marshall 1991 Introduction)

Format		Presentation	
Material		Placement	
Shape	Implied	Scale	
Orientation	Variable	Orientation	
Construction		Display	
Color	Absence	Movement	Implied
Texture		Distance	
		Time	
		Sound	Implied

Untitled
Patrick Dougherty
Japan, 1992
(Beardsley 182)

Format		Presentation	
Material		Placement	
Shape	Actual	Scale	
Orientation	Variable	Orientation	
Construction		Display	
Color		Movement	Implied
Texture		Distance	
		Time	
		Sound	



Fan In Packaging
Jan Lepair, director
1994
(Davis 1994 442)

Format		Presentation	
Material		Placement	
Shape	Actual	Scale	
Orientation		Orientation	
Construction		Display	
Color	Contrast	Movement	Implied
Texture		Distance	
		Time	
		Sound	

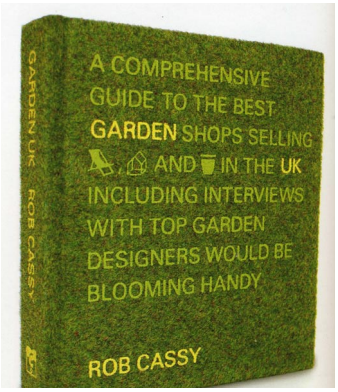
Synthesis

Comparative Charts continued

CandyBAM
Vik Muniz
Brooklyn 2002
(Freedman 173)

Format	
Material	Implied
Shape	
Orientation	
Construction	
Color	
Texture	Implied

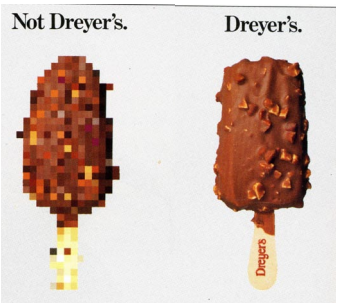
Presentation	
Placement	Overlapping
Scale	Enlargement
Orientation	
Display	
Movement	
Distance	
Time	
Sound	



University Press Book
Petra Janssen, director
1997
(Davis 1997 197)

Format	
Material	Actual
Shape	
Orientation	
Construction	
Color	
Texture	Actual

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	
Distance	
Time	Growth
Sound	



Blush
Atsushi Chiba, director
Brazil 1994
(Davis 1994 210)

Format	
Material	Implied
Shape	
Orientation	
Construction	Mixed Media
Color	
Texture	Implied

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	
Distance	
Time	
Sound	

Synthesis

Comparative Charts continued

Eggs
Theo Ferreira, director
1999
(Davis 1999 171)

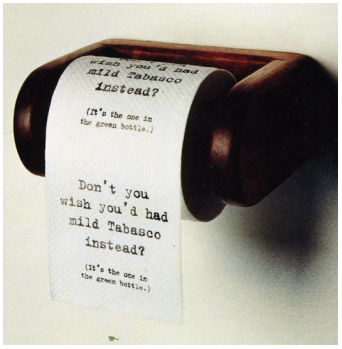
Format	
Material	Actual
Shape	
Orientation	
Construction	Ephemeral
Color	
Texture	

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	Actual
Distance	
Time	
Sound	

Toothpicks
Rodger Beekman, director
1997
(Davis 1997 341)

Format	
Material	Actual
Shape	Actual
Orientation	
Construction	Ephemeral
Color	
Texture	

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	Actual
Distance	
Time	Depletion
Sound	



Toilet Roll
Jan Jacobs, director
1997
(Davis 1997 144)

Format	
Material	Actual
Shape	
Orientation	
Construction	Ephemeral
Color	
Texture	

Presentation	
Placement	
Scale	
Orientation	Variable
Display	
Movement	Actual
Distance	
Time	Depletion
Sound	

Synthesis

Comparative Charts continued

Hair Tinting
Cabell Harris, director
1992
(Marshall 1992 33)

Format	
Material	
Shape	Implied
Orientation	
Construction	
Color	Contrast
Texture	

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	
Distance	
Time	
Sound	

Yellow Elm Leaves Laid Over a Rock
Andy Goldsworthy
Scotland, 1991
(Beardsley 53)

Format	
Material	
Shape	
Orientation	Variable
Construction	Ephemeral
Color	Contrast
Texture	Actual

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	Actual
Distance	
Time	Depletion
Sound	

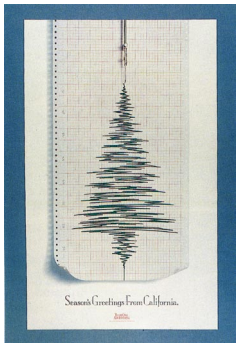
Olympic Illiad
Alexander Lieberman
New York City
(Barrie 95)

Format	
Material	
Shape	Actual
Orientation	Variable
Construction	
Color	Contrast
Texture	Mirroring

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	
Distance	
Time	
Sound	

Synthesis

Comparative Charts continued



Season's Greetings
Tom Cordner, director
1991
(Marshall 1991 662)

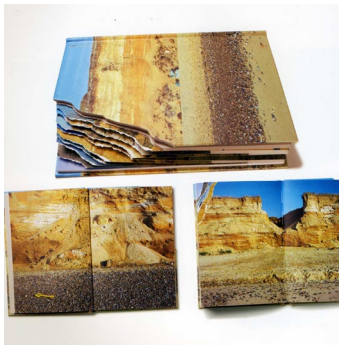
Format	
Material	
Shape	Actual
Orientation	
Construction	
Color	
Texture	

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	Implied
Distance	
Time	Growth
Sound	

Spencer Theatre
Antoine Predock
(Betsky 73)

Format	
Material	Implied
Shape	Actual
Orientation	
Construction	
Color	Absence
Texture	

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	
Distance	
Time	
Sound	



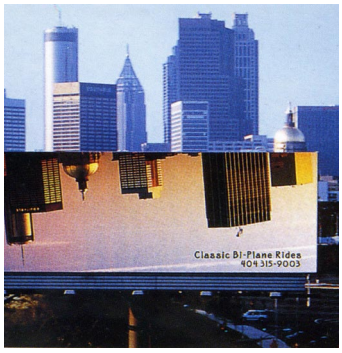
Coastal Erosion
Harriet Devoy, director
(Witham 192)

Format	
Material	Implied
Shape	Actual
Orientation	
Construction	
Color	
Texture	Implied

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	
Distance	
Time	Depletion
Sound	

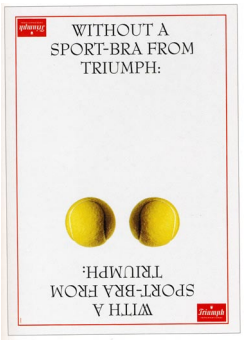
Synthesis

Comparative Charts continued



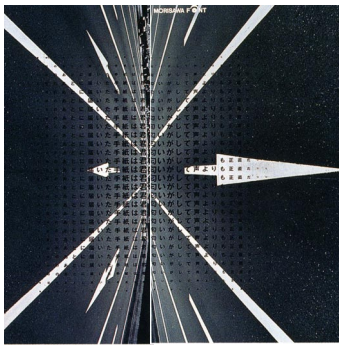
Upside Down
Mike McMullen, director
1999
(Davis 1999 406)

Format		Presentation	
Material		Placement	Overlapping
Shape		Scale	
Orientation	Upside - Down	Orientation	
Construction		Display	
Color	Contrast	Movement	
Texture		Distance	
		Time	
		Sound	



With A Sports Bra
Danielle Lanz, director
1997
(Davis 1997 91)

Format		Presentation	
Material		Placement	
Shape		Scale	
Orientation	Upside - Down	Orientation	
Construction		Display	
Color		Movement	Implied
Texture		Distance	
		Time	
		Sound	



Morisawa Font
Shinnoske Sugisaki, director
1998
(Davis 1998 245)

Format		Presentation	
Material		Placement	
Shape		Scale	
Orientation	Backwards	Orientation	
Construction		Display	
Color	Absence	Movement	Implied
Texture	Implied	Distance	
		Time	
		Sound	

Synthesis

Comparative Charts continued

Device to Root Out Evil
Mike McMullen, director
1999
(Davis 1999 406)

Format	
Material	
Shape	
Orientation	Upside - Down
Construction	Transparency
Color	Contrast
Texture	

Presentation	
Placement	
Scale	Reduction
Orientation	
Display	
Movement	
Distance	
Time	
Sound	

Laforet
Nagi Noda, director
2004
(Davis 2004 116)

Format	
Material	
Shape	Implied
Orientation	
Construction	Altered Transparency
Color	
Texture	

Presentation	
Placement	Overlapping
Scale	
Orientation	
Display	
Movement	Actual
Distance	
Time	
Sound	

Jail
Frank Dondit, director
1983
(Davis 1983 173)

Format	
Material	
Shape	
Orientation	
Construction	Altered Transparency
Color	
Texture	Implied

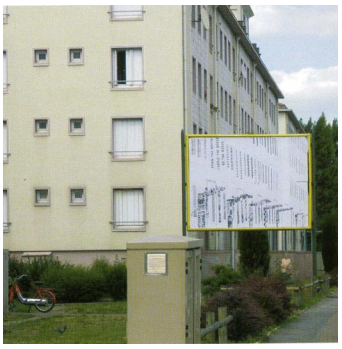
Presentation	
Placement	Overlapping
Scale	
Orientation	
Display	
Movement	
Distance	
Time	
Sound	

Synthesis

Comparative Charts continued

New York Times
Fin Winterson, director
2004
(Davis 2004 368)

Format		Presentation	
Material		Placement	
Shape		Scale	
Orientation		Orientation	
Construction	Implied Transparency	Display	
Color		Movement	
Texture	Implied	Distance	
		Time	
		Sound	



Urban Blooz
Unknown Designer
France 2005
(Hundertmark 57)

Format		Presentation	
Material		Placement	Underlapping
Shape		Scale	
Orientation		Orientation	
Construction	Altered Transparency	Display	
Color	Absence	Movement	
Texture		Distance	
		Time	
		Sound	

Urban Blooz
Unknown Designer
France 2005
(Hundertmark 56)

Format		Presentation	
Material		Placement	Underlapping
Shape		Scale	
Orientation		Orientation	
Construction	Altered Transparency	Display	
Color	Absence	Movement	
Texture		Distance	
		Time	
		Sound	

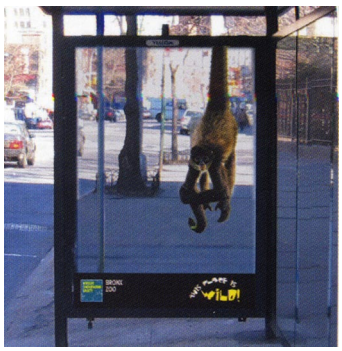
Synthesis

Comparative Charts continued

Wrangler's Camoflage
John Boone, director
1999
(Davis 1999 154)

Format	
Material	
Shape	Actual
Orientation	
Construction	Die - Cut
Color	
Texture	Actual

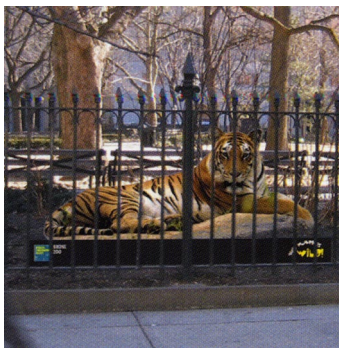
Presentation	
Placement	Overlapping
Scale	
Orientation	
Display	
Movement	
Distance	
Time	
Sound	



This Place is Wild!
Scott Ballum, director
2004
(Davis 2004 418)

Format	
Material	
Shape	
Orientation	
Construction	Die - Cut
Color	
Texture	

Presentation	
Placement	Overlapping
Scale	
Orientation	
Display	Hanging
Movement	
Distance	
Time	
Sound	



This Place is Wild!
Scott Ballum, director
2004
(Davis 2004 418)

Format	
Material	
Shape	Actual
Orientation	
Construction	Die - Cut
Color	
Texture	

Presentation	
Placement	Underlapping
Scale	
Orientation	
Display	
Movement	
Distance	
Time	
Sound	

Synthesis

Comparative Charts continued

Look Twice
Strong Cuevas
Amangasset, New York
(Barrie 140)

Format		Presentation	
Material		Placement	Overlapping
Shape		Scale	Enlargement
Orientation		Orientation	
Construction	Die - Cut	Display	
Color		Movement	Actual
Texture		Distance	
		Time	
		Sound	

Molecule Men
Jonathan Borofsky
Los Angeles
(Barrie 26)

Format		Presentation	
Material		Placement	
Shape		Scale	Enlargement
Orientation		Orientation	
Construction	Die - Cut	Display	
Color		Movement	Implied
Texture	Actual	Distance	
		Time	
		Sound	

Grass Man
Vito Acconci
1987
(Forsha 25)

Format		Presentation	
Material		Placement	
Shape	Implied	Scale	
Orientation		Orientation	
Construction	Die - Cut	Display	
Color		Movement	
Texture		Distance	
		Time	
		Sound	

Synthesis

Comparative Charts continued

Candida
Advico and Young
Switzerland 2005
(Davis 2005 161)

Format	
Material	
Shape	Actual
Orientation	
Construction	Mixed Media
Color	
Texture	Actual

Presentation	
Placement	Underlapping
Scale	Enlargement
Orientation	
Display	Disrupted Frame
Movement	
Distance	
Time	
Sound	

Wall: Black
Luciana Cani, director
Brazil 1983
(Davis 121)

Format	
Material	Actual
Shape	Implied
Orientation	
Construction	Mixed Media
Color	
Texture	Actual

Presentation	
Placement	Underlapping
Scale	
Orientation	
Display	Disrupted Frame
Movement	
Distance	
Time	Growth
Sound	

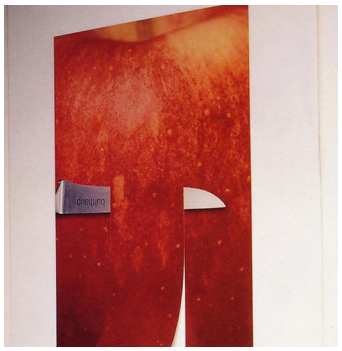
Untitled
Unknown
Austria 2004
(Hundertmark 20)

Format	
Material	Actual
Shape	Actual
Orientation	
Construction	Mixed Media
Color	
Texture	

Presentation	
Placement	Underlapping
Scale	
Orientation	
Display	
Movement	Implied
Distance	
Time	
Sound	

Synthesis

Comparative Charts continued



Apple Point-of-Purchase Poster
Tay Guan Hin, director
Singapore 2001
(Davis 2001 81)

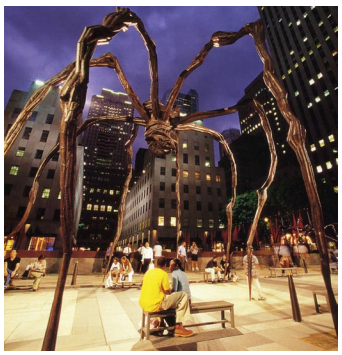
Format	
Material	
Shape	
Orientation	
Construction	Mixed Media
Color	
Texture	Implied

Presentation	
Placement	Underlapping
Scale	Enlargement
Orientation	
Display	
Movement	Implied
Distance	
Time	
Sound	

Fashion Center Kiosk
James Biber, director
1997
(Davis 1997 433)

Format	
Material	
Shape	Actual
Orientation	
Construction	
Color	
Texture	

Presentation	
Placement	
Scale	Enlargement
Orientation	
Display	
Movement	
Distance	Solution Height
Time	
Sound	



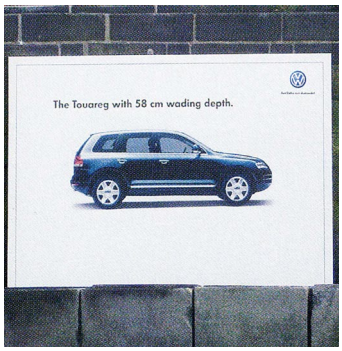
Maman
Louise Bourgeois
Manhattan 1999
(Freedman 18)

Format	
Material	
Shape	Implied
Orientation	
Construction	
Color	
Texture	

Presentation	
Placement	
Scale	Enlargement
Orientation	
Display	
Movement	
Distance	
Time	
Sound	

Synthesis

Comparative Charts continued



Wading Depth
Tomas Tulinius
2005
(Davis 2005 124)

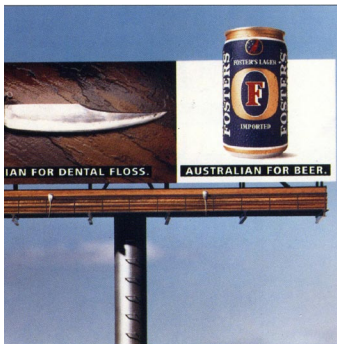
Format	
Material	**Actual**
Shape	
Orientation	
Construction	**Ephemeral**
Color	
Texture	

Presentation	
Placement	**Underlapping**
Scale	
Orientation	
Display	**Disrupted Frame**
Movement	**Implied**
Distance	
Time	Growth
Sound	

Overweight?
Alan Vladusic, director
2004
(Davis 2004 174)

Format	
Material	
Shape	
Orientation	
Construction	
Color	
Texture	

Presentation	
Placement	
Scale	**Enlargement**
Orientation	
Display	**Disrupted Frame**
Movement	**Implied**
Distance	
Time	
Sound	



Fosters
Tony Angotti, director
1994
(Davis 1994 250)

Format	
Material	
Shape	
Orientation	
Construction	
Color	
Texture	

Presentation	
Placement	
Scale	**Enlargement**
Orientation	
Display	**Disrupted Frame**
Movement	
Distance	
Time	
Sound	

Synthesis

Comparative Charts continued

Swissair
Hiromasa Kisso, director
1994
(Davis 1994 148)

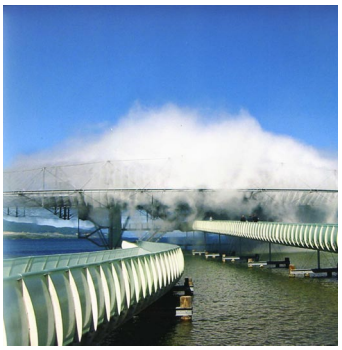
Format	
Material	
Shape	Implied
Orientation	
Construction	
Color	Contrast
Texture	

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	Implied
Distance	
Time	
Sound	

Entrance
Yoshnikuni Iiad
Japan, 1973
(Redstone 173)

Format	
Material	
Shape	Actual
Orientation	Variable
Construction	
Color	
Texture	

Presentation	
Placement	
Scale	Enlargement
Orientation	
Display	
Movement	Actual
Distance	Solution Height
Time	
Sound	



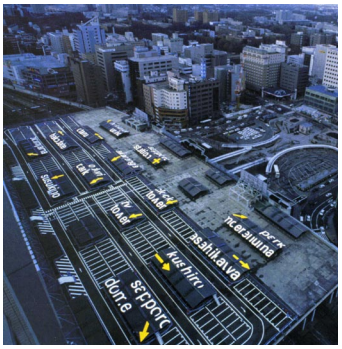
The Blur Building
Diller, Sconfito and Renco
2002
(Bonet 82)

Format	
Material	Actual
Shape	Actual
Orientation	
Construction	Ephemeral
Color	
Texture	Actual

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	Actual
Distance	
Time	Growth
Sound	

Synthesis

Comparative Charts continued



As Seen from Above
Yuki Kikutake, director
2004
(Davis 2004 259)

Format	
Material	
Shape	
Orientation	
Construction	
Color	**Contrast**
Texture	

Presentation	
Placement	**Overlapping**
Scale	**Enlargement**
Orientation	
Display	
Movement	
Distance	**Viewer Height**
Time	
Sound	

Drains
Robert Gober
1990
(Forsha 44)

Format	
Material	**Actual**
Shape	
Orientation	
Construction	
Color	
Texture	

Presentation	
Placement	**Overlapping**
Scale	
Orientation	
Display	
Movement	
Distance	**Solution Height**
Time	
Sound	

The Border Project
Krzysztof Wodiczko
San Diego 1988
(Forsha 79)

Format	
Material	**Actual**
Shape	**Actual**
Orientation	
Construction	**Ephemeral**
Color	
Texture	**Actual**

Presentation	
Placement	**Overlapping**
Scale	**Enlargement**
Orientation	
Display	
Movement	
Distance	**Viewer Proximity**
Time	**Light**
Sound	

Synthesis

Comparative Charts continued

Wallpaper
Alex Burnard, director
2004
(Davis 2004 123)

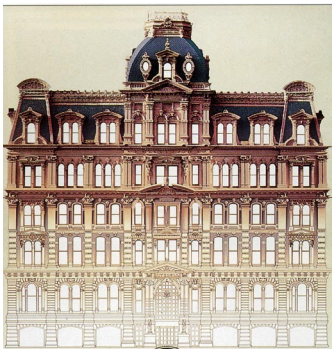
Format	
Material	**Actual**
Shape	
Orientation	
Construction	**Ephemeral**
Color	
Texture	**Actual**

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	**Actual**
Distance	
Time	**Depletion**
Sound	

Check In / Check Out
Erik Kessels, director
1999
(Davis 1999 293)

Format	
Material	
Shape	
Orientation	
Construction	
Color	**Contrast**
Texture	

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	**Implied**
Distance	
Time	**Sequence**
Sound	



Bicentennial
Ken Butts, director
1992
(Marshall 1992 202)

Format	
Material	
Shape	
Orientation	
Construction	**Implied Transparency**
Color	
Texture	**Implied**

Presentation	
Placement	
Scale	
Orientation	
Display	
Movement	
Distance	
Time	**Growth**
Sound	

Synthesis

Conclusions

Graphic design and other disciplines have already incorporated unexpected contextual relationships into existing design solutions using a number of combinations of variables. An examination of the organizational charts on pages 70 - 85 reveals key trends.

Existing Solutions in Graphic Design and Other Disciplines	Actual Material	Absence of Color
	Implied Material	Actual Texture
	Variable Internal Orientation	Implied Texture
	Upside Down Internal Orientation	Overlapping
	Ephemeral	Underlapping
	Mixed Media	Enlargement
	Die-cut	Reduction
	Transparency	Implied Movement
	Contrast	Solution Height
Existing Solutions in Graphic Design	Implied Shape	Implied Transparency
	Implied Die-cut	Disrupted Frame
	Altered Transparency	Sequence
Existing Solutions in Other Disciplines	Actual Shape	Upside Down Full Orientation
	Mirrored	Actual Movement
	Layered	Light and Shadow
	Variable Full Orientation	
Few Existing Examples	Backwards Internal Orientation	Backwards Full Orientation
	Framing	Viewer Height
	Hanging	Actual Sound
	Viewer Proximity	Implied Sound

The vast majority of variables have already been addressed by graphic design, environmental graphic design, site-specific art and architecture. Across all of these disciplines, context is considered an important consideration in the final design solution.

Most of the implied variables such as implied material or implied texture are already used extensively in graphic design. Typically, implied variables are achieved through photography and offset printing or finishing processes, therefore making them ideal for two-dimensional graphic design solutions.

Some variables have few existing examples in any disciplines. These make especially noteworthy candidates for potential further exploration in the coming Ideation section of this thesis study (please see page 94).

Ideation

Potential Outside Content

All possible final applications for this thesis centered around context and site-specificity. As discussed, congruent and incongruent variables have already been explored by graphic designers, environmental graphic designers, site-specific artists and architects. The examples shown in the Synthesis section of this thesis use these variables across a number of locations and disciplines.

To break new ground, this thesis uses format and presentation variables explored in the Synthesis section in previously unexplored ways to support related, outside content. Outside content was chosen as a means to demonstrate this thesis study's finding about context. Primary brainstorming methods for the final thesis application involved the random juxtaposition of potential outside content, sites and incongruent variables.

While all of the following potential areas of focus have links to context, some are more closely linked than others. In the end, those topics under globalization issues seemed to connect most readily to cultural context. Those topics that fall under environmental issues correspond most with issues of physical context. Those topics that fall under communication issues relate most directly with this this study’s treatment of audience participation, perception and interpretation.

Globalization Issues	Gender equality	Arms control and trade
	Racism	Energy security
	Poverty and foreign aid	Children’s rights
	National and global debt	Micro lending
Environmental Issues	Global warming	Biodiversity
	Renewable energy	Pollution and consumption
	Green and sustainable design	Alternative fuels
	Recycling	Water conservation
Communication Issues	Virtual versus traditional reality	Television/game violence
	Mainstream media	Viral media versus traditional media

Ideation

Potential Outside Content continued

A relationship to physical context, location and site makes emerging environmental issues, especially those centering around pollution and consumption, conceptually-sound choices for the outside content of the final design application for this thesis. Negative human impacts on the environment create current and emerging issues: much design work has already been done to bring ‘green’ issues such as sustainability, energy consumption, and climate change to the forefront of the collective consciousness. "Green" messages relate to a growing social movement that focuses on increasing global environmental protection and social responsibility. This thesis will demonstrate how using incongruent formats and presentations of these messages can draw viewer attention, promote meaningful conversation and reach new audiences.

Pollution and Consumption

Mindless waste
Light pollution
Individual environmental impact
Short product life cycles
Genetically engineered foods
Limited global resources
Energy consumption
Smog and air pollution, emissions
Water scarcity and contamination
Current regulations fall short
Unregulated trash dumping and burning
Conservation of endangered species
Finite versus renewable resources
Pesticides, fertilizers and food production
Landfills, trash build-up
Recyclable materials not recycled
Materials do not biodegrade
Growing economic disparity
Climate change
Short product life cycles
Materialistic Values
Hidden costs of convenient items
Luxuries as necessities

Ideation

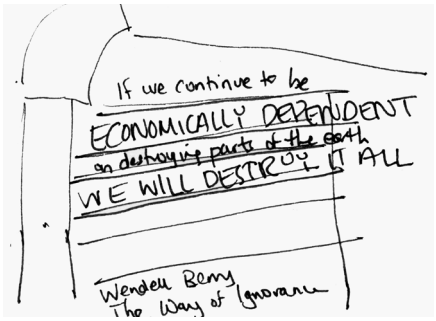
Initial Proposal One

Creating a System of Large, Site-Specific Graphic Design Solutions

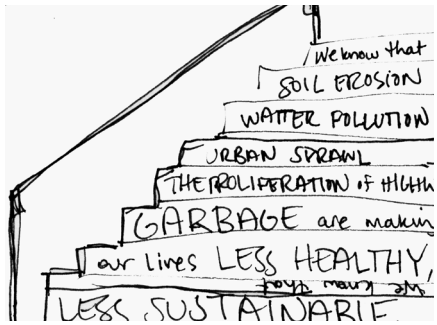
One possible application direction explored by this thesis study was the creation of a group of site-specific graphic design solutions created *in situ* at the Rochester Institute of Technology (RIT). Each solution would establish meaningful connections between carefully-chosen format and presentation variables, sites on the RIT campus, and textual components communicating messages about environmental awareness.

Each solution would use and reflect the specific qualities of the chosen site in order to strengthen message-making. Each solution would be created exclusively for one selected site, using the features of the site to the fullest potential.

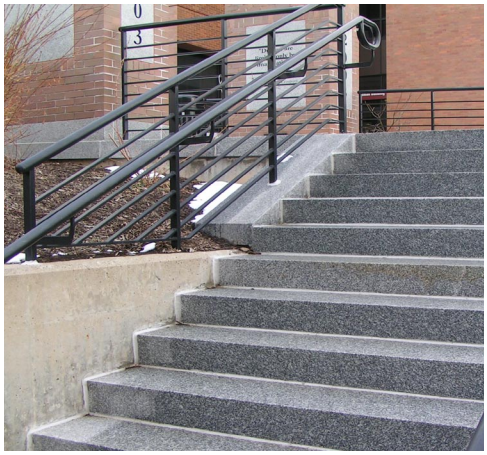
Initial Sketches



This proposal uses an industrial site in an underground walkway to present a message on the wall, ceiling, floor and pipes.



This solution takes advantage of the natural progression and many alternating planes of the stairs to relay a message to pedestrians as they both ascend and descend.



Ideation

Initial Proposal One continued

The following photographs depict some potential locations for site-specific graphic design solutions on the Rochester Institute of Technology campus:

The primary features of RIT's architecture are long, flat brick walls and walkways. The consistent material offers a similar physical context across campus.

The walkway through the base of this building could be used to frame a graphic design solution.

This is one of the busiest sites on campus, and it offers short walls in organic shapes and a statue of the school mascot.

These light posts are evenly spaced along an isolated road that loops around campus, offering interesting possibilities for spacing graphic design messages along the road.

This campus site offers the use of multiple, adjacent staircases.

Here, an existing campus sculpture is a natural focal point.

Ideation

Initial Proposal Two

Exploring Specific Variables of Format and Presentation

Those presentation and display variables that were outlined in the Synthesis section are undoubtedly the cornerstones of incongruity: unexpected uses of incongruent variables are what makes a given solution rebel against its context. The appropriate follow-up question would therefore be, “which format and presentation elements in this context are *most* effective at drawing viewer attention, promoting closer inspection or conversation, or providing a strategy for extending the message to alternative audiences?”

This proposal is composed of one environmental message displayed in the same location across a number of subsequent days. Each day, the message would be altered to use a different format or presentation variable. Viewer reaction and interaction would then be recorded and analyzed for patterns that reveal the most successful kinds of incongruity.

Initial Sketches

Overlapping

Actual Material

Implied Material

Die-Cut

Enlargement

Reduction

Implied Transparency

Upside Down

Ideation

Initial Proposal Three

Exploring Presentation Across Linked Sites

This proposal focuses on exploring presentation and format variables across sites that are linked by way of sharing a common feature: garbage cans, thermostats, vending machines, etc. Related environmental messages are displayed across individual sites, with an emphasis on further integrating the shared feature into the site in an incongruent way. Linked sites are especially interesting because although they share a common feature, they also maintain individual site-specific components that contribute to the uniqueness of each solution. The specific distinctions of each site are taken into account while maintaining continuity across the shared features.

Potential Linked Sites

Consumption

Drinking Fountains
Shopping Bags
Cafeteria
Napkin or Silverware Dispensers
Packaging and Wrappers
Vending Machines
Copy Machines
Kitchen and Office Appliances
Bathroom Sinks and Showers

Pollution

Sewers and Drains
Bus Stops
Thermostats and Vents
Dumpsters
Parking Lots
Lamps or Bulbs
Garbage Cans

Examples



Garbage Cans


Thermostats

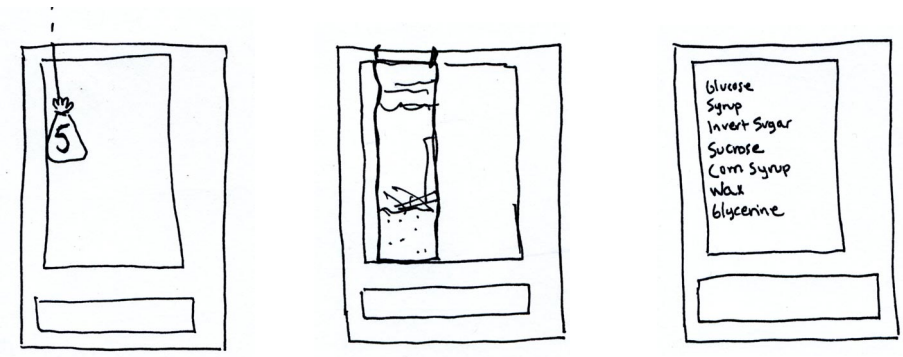
Ideation

Initial Brainstorming

Numerous sketches were created to assess the usability and appropriateness of different combinations of incongruent variables (full list on page 50), sites (full list on page 92) and environmental messages (full list on page 88). A sample from a larger body of sketches is reproduced below

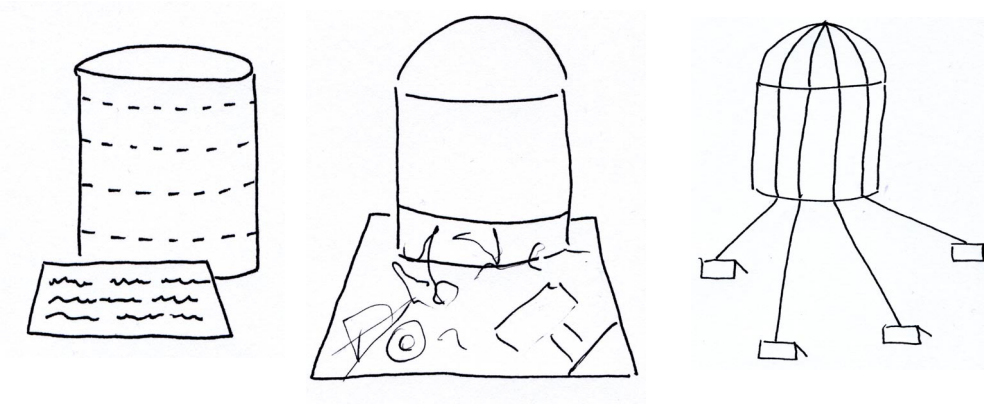
Vending Machines

These three examples explore the vending machine as the site of messages relating to the hidden cost of convenience items. The solutions use the incongruent variables of hanging or framing.



Garbage Cans

Garbage cans are explored as the site of messages about landfilling rates. These solutions use different incongruent relationships including growth, implied texture and overlapping. placement.



Packaging and Wrappers

These existing food packages are altered with the addition of implied transparencies and die cuts that suggest landfills and include messages about short product life cycles.

Ideation

Chosen Design Application Proposal

The three initial proposals led to this chosen design application proposal, which relates most closely to the goals of this thesis study. The final concept is a mixture of all three proposals, focusing on the importance of context, display and presentation, and including the selection of linked campus sites.

Proposal

Garbage cans are often the center of pollution on an individual level. By using incongruent or unexpected display techniques, this proposal heightens viewer awareness of this often-overlooked functional object and draws attention to issues of both individual and society-wide consumption and pollution. This application focuses not only on context, but also on negative environmental impact, especially the amount of municipal solid waste produced by each American, landfilling rates, and growth of consumption over time.

Three existing garbage cans were treated with a series of related messages and each used three groups of different incongruent format and presentation variables. Each garbage can interacts with the site or environment in a meaningful and incongruent way.

The locations of the trash cans were deliberately chosen to be visible and public with ample pedestrian foot traffic and consumable items nearby. The three sites also represented a range of indoor and outdoor contexts with various, different features. The sites ultimately chosen all exist in RIT's Student Alumni Union. This building is one of the busiest and most diverse contexts on campus, attracting visitors from off-campus as well as students and faculty from all departments.

Ideation

Chosen Application Proposal continued

Initial Design Stage

The initial design proposals for three unique trash can solutions are presented in the order in which they were designed. Solution One is presented on page 96, Solution Two on page 97 and Solution Three on page 98.

Initial research was performed to collect statistics and facts about consumption and pollution in the United States. Using an environmental statistic as a starting point, the basic concept for each solution was formulated, and the most appropriate sites were accessed, chosen and documented. Additional ideation sketches were completed to analyze the specifics of each solution in its site, as well as to elaborate all the ways in which each incongruent variable could manifest itself.

Due to the large number of possible incongruent variables (please see page 50 for a full list), a subset of variables was chosen for each of the three trash can solutions. At least one variable (implied, actual) was chosen to represent each element (material).

Solution One

Actual Material

Variable Internal Orientation

Actual Texture

Placement

Solution Two

Shape

Temporary Media

Absence of Color

Scale

Implied Growth over Time

Solution Three

Transparency

Hanging

Implied Movement

Color Contrast

Ideation

Chosen Application Proposal continued

Solution One

"Over 230 million pounds of garbage are generated by Americans each year. More than 50% of this waste must be placed in landfills."
(United States Environmental Protection Agency)

This solution is located on the ground floor of the Student Alumni Union at the Rochester Institute of Technology. It is in a busy, interior space between several dining halls. This solution includes several components. The primary addition to the context is a large sheet of corrugated cardboard covered with paper and plastic trash. A large sign with the statistic fits snugly into the mouth of the trash can, cutting it exactly in half.

The employment of the above incongruent display variables subtly transports the viewer to the landfill context, serving as a visual reminder of environmental impact.

Actual Material
Bags, cardboard, and plastic bottles that are affixed to the trash can, and garbage is layered on the floor.

Variable Internal Orientation
Garbage is arranged in a semi-random way.

Actual Texture
The use of three-dimensional objects changes the surface quality of the trash can.

Placement
Various components overlap and underlap the trash can and each other.

Ideation

Chosen Application Proposal continued

Solution Two

"The amount of waste generated in America has tripled since 1960."
(United States Environmental Protection Agency)

Placed outside a busy side entrance to the Student Alumni Union, Solution Two is located in an exterior, built context. This solution is composed of a series of chalk outlines drawn on the brick wall behind the trash can. These outlines replicate the height of the can at 200 and 300 percent of the original size, mirroring the growth in trash production. The chosen statistic is presented on a semi-circular board that suggest the active opening of the can itself.

The chalk outlines literally trace the growth of trash since 1960. They also potentially carry with them a darker, secondary connotation of police chalk lines around a body.

Shape
The shape of the solution mirrors the trash can and is integral to the message-making.

Temporary Media
The outlines are produced using white chalk or tape.

Absence of Color
The solution uses only black and white.

Scale
The outlines depict the trash can in increasing sizes.

Implied Growth over Time
The outlines imply growth over time from smaller to larger.

Ideation

Chosen Application Proposal continued

Solution Three

"Each American produces an average of 4.7 pounds of trash each day. Compare this to the 2.7 pounds a day produced by each American in 1960."
(United States Environmental Protection Agency)

This solution is located on the ground floor of the Student Alumni Union just inside a busy entrance: a combination of interior and exterior space, approached from both directions.

The primary components of this solution are two semi-transparent trash bags suspended from the door frame above the trash can: the larger bag would be labeled for the year 2007, while the smaller bag would be labeled with the year 1960. The trash can itself is labeled with the year 2008. A coordinated panel is mounted between the bags to display the above statistic from the Environmental Protection Agency. The bags and the statistic panel are each printed on boh sies to tek advantage of the window on site. Incongruent display variables visually depict the total weight of trash that each of us currently produce over the course of one day, as compared to previous generations of consumers.

Transparency
The solution is double-sided and can be seen while entering or exiting the building.

Hanging
Trash bags are suspended from the top of the door frame.

Implied Movement
The larger, heavier bag is hung lower, while the smaller, lighter bag appears to rise.

Color Contrast
Sign compositions do not use colors already found in the environment.

Intermediate Evaluation

Introduction

The purpose of this Intermediate Evaluation was to test the effectiveness of the design of each of the three solutions outlined on pages 96 through 98. Success was determined by the overall clarity of the message and the unexpectedness (incongruence) of the solution. In addition, evaluation centered on an assessment and ranking of the incongruent variables used. Ultimately, this feedback was used to focus and refine all three trash can solutions.

Audience and Location

The test audience for these solutions was a random group of 60 students, staff, faculty and visitors who entered RIT's Student Alumni Union on Monday, April 14, 2008 during the busy lunchtime block from noon to 3 pm. The Student Alumni Union was selected as the general location of the solutions due to the diversity of activities and variety of users at this location. The date was selected because of its proximity to nation-wide Earth Day. Sites were chosen to represent a wide range of indoor and outdoor physical contexts with different environmental attributes and varying levels of existing visual complexity.

Evaluation Procedure

Evaluation was twofold. Firstly, questionnaires were distributed to students, faculty, staff and visitors as they approached one of the three trash can solutions. Assistants were stationed at each can with clipboards, ready to approach potential users with a common, predetermined greeting. Each user completed the questionnaire on-site, with visual access to the appropriate solution.

In addition, a timed 20 minute period of unobtrusive observation provided information about the number of viewers, duration of viewing, and the approach of each viewer. The data collected from the unobtrusive observation periods provided additional insight about the ability or inability of each trash can solution to draw attention.

Intermediate Evaluation

Sample Questionnaire

The evaluation process was kept necessarily short in order to appeal to busy viewers at the Student Alumni Union. The questionnaire is divided into three sections, focusing on the clarity of the message, the impact of the solution, and the unexpectedness of the solution. A variety of testing mechanisms were employed including numerical ranking, bipolar scales and open answer sections. Full-sized evaluations for all three solutions are provided in the Appendix section (please see page 154 through 156).

Questionnaire

1 Solution Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

Please describe yourself.

Please check all that apply.

- ☐ Student
- ☐ Faculty
- ☐ Visitor to campus
- ☐ Female
- ☐ Male

How did you approach this trash can?

- ☐ You were planning on using the trash can anyway
- ☐ You saw the trash can and stopped for a closer look
- ☐ You were walking by and glanced at the trash can
- ☐ You were walking by and did not notice the trash can

What is the primary message of this trash can?

Please write one to three sentences about the message of the trash can.

Please rank the degree to which you agree with the following statements.

How did you react to this trash can?	*Agree*				*Disagree*
This trash can caught my attention today	⑤	④	③	②	①
I noticed the trash can from a distance	⑤	④	③	②	①
The trash can could be used as a conversation piece	⑤	④	③	②	①
The additions to the trash can help convey the message	⑤	④	③	②	①
The use of the area surrounding the trash can is unexpected	⑤	④	③	②	①

What are the most unexpected elements of this trash can installation?

Please rank the following from one to five, with one being the most unexpected.

- ___ The bags, cardboard, and other trash that are affixed to the outside of the trash can
- ___ The random arrangement of garbage on the floor and up the side of the can
- ___ The surface quality (the feel) of the floor and trash can as you approach it
- ___ That the added graphic piece fits into the trash can

What is your impression of this trash can and how it works at the Student Alumni Union?

Please write one to three sentences about the trash can on site.

Intermediate Evaluation

Unobtrusive Observation

The evaluation assistants were also asked to stop handing out questionnaires and simply observe people passing by each solution for approximately 20 minutes. They marked the appropriate categories on the following form each time a specific action was taken. Space was also allocated to note the number of seconds that each viewer spent observing each trash can installation.

Unobtrusive Observation Form

1 Unobtrusive Observation

Observe the trash can for 20 minutes.

Place a check mark in the appropriate category when each action occurs.

Did not look at the trash can

Glanced at the trash can

Did a double take and kept walking

Stopped walking to look at the trash can

Made a remark to a friend about the trash can

Write the approximate number of seconds that each viewer spent looking at the trash can.

_____ seconds _____ seconds _____ seconds _____ seconds
_____ seconds _____ seconds _____ seconds _____ seconds
_____ seconds _____ seconds _____ seconds _____ seconds
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_____ seconds _____ seconds _____ seconds _____ seconds

Intermediate Evaluation

Solution One

Primary view from main approach

Intermediate view from the side

Intermediate Evaluation

Solution One continued

Final, secondary view with main statistic

Intermediate Evaluation

Solution One Questionnaire Results

Respondents

Solution One was the last to be evaluated due to the length of setup time required, and did not overlap the evaluation of either of the other two solutions. There were 20 total questionnaire respondents: 16 students, 1 staff member, 2 visitors to campus, and 1 additional respondent that did not provide information. ten of the respondents were male, 7 were female, and 3 did not specify a gender.

Approach

2 respondents were planning on using the trash can anyway

5 saw the trash can and stopped for a closer look

8 were walking by and glanced at the trash can

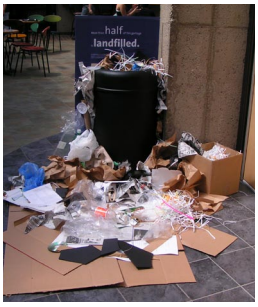
2 did not notice the trash can

3 had another reason for taking the survey (they had a friend taking a survey, were waiting in line)

Respondents on site completing the questionnaire while viewing Solution One

Intermediate Evaluation

Solution One Questionnaire Results continued



What is the Primary Message of the Trash Can?

When asked about the primary message of this trash can, only one respondent did not reply. The remaining 19 responses fell into four categories:

Landfilling

"Too much garbage in landfills."

"America produces a lot of trash, about 1/2 of it is landfilled and apparently we should do something about it."

"How much we put in the landfill that could be reused or recycled or not consumed at all!"

Garbage Production

"The amount of garbage produced by society is increasing."

"To show how much waste we use daily. To try to make people aware."

"These are common things that we litter the earth with but don't stop to think about it."

"There's a lot of garbage."

"America is creating a lot of nonrecyclable trash."

"We generate a lot of trash, not sure if it is about need to limit wastefulness or recycling?"

"There is a lot of trash."

Recycling

"Recycle, reduce, reuse."

"Recycle, waste less. Info about how much we waste."

"We can recycle."

"We have too much garbage, need to recycle more."

"People throw away things that aren't garbage. Practically nothing in the garbage is really trash, it should have been recycled."

"To recycle."

Individual Impact

"Action needs to be taken to begin to solve this problem."

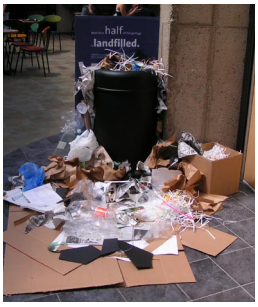
"It is set up to be a gross exaggeration of a current problem. This exaggeration draws a person's attention and points out the facts to them."

"Lack of concern."

"Something is up!"

Intermediate Evaluation

Solution One Questionnaire Results continued



How did you react to this trash can?

Respondents were asked to rank the degree to which they agreed with each statement on a scale from one to five. Averages were calculated by adding the total responses and dividing by the number of respondents. Users agreed strongly with those statements with the highest averages.

This trash can caught my attention today Average 3.95

8 respondents strongly agreed by marking 5

5 respondents agreed by marking 4

5 respondents somewhat agreed by marking 3

2 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

I noticed the trash can from a distance Average 3.3

3 respondents strongly agreed by marking 5

7 respondents agreed by marking 4

4 respondents somewhat agreed by marking 3

5 respondents disagreed by marking 2

1 respondent strongly disagreed by marking 1

The trash can could be used as a conversation piece Average 3.8

6 respondents strongly agreed by marking 5

7 respondents agreed by marking 4

5 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

1 respondent strongly disagreed by marking 1

The additions to the trash can help convey the message Average 4.25

9 respondents strongly agreed by marking 5

8 respondents agreed by marking 4

2 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

0 respondents strongly disagreed by marking 1

The use of the area surrounding the trash can is unexpected Average 4

5 respondents strongly agreed by marking 5

11 respondents agreed by marking 4

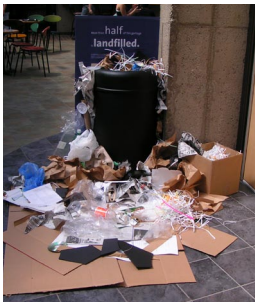
3 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

0 respondents strongly disagreed by marking 1

Intermediate Evaluation

Solution One Questionnaire Results continued



What are the most unexpected elements of this trash can installation?

Eight out of the 20 respondents did not rank from one to five, but rather put a check mark next to the one or two variables that they felt to be the most unexpected. Averages were calculated by multiplying the number of users by the score that they chose, and then dividing the total by the number of users minus the number that did not respond. Note: those elements with comparatively lower average scores are the most unexpected.

The trash that ia affixed to the outside of the trash can Average 2.27

3 respondents felt that this was the most unexpected element of the solution
4 respondents felt that this was the second most unexpected element
5 respondents felt that this was the third most unexpected element
2 respondents felt that this was the least unexpected element of the solution
6 respondents did not include this element in their ranking

The random arrangement of garbage on the floor and up the side of the can Average 1.47

13 respondents felt that this was the most unexpected element of the solution
1 respondent felt that this was the second most unexpected element
2 respondents felt that this was the third most unexpected element
1 respondent felt that this was the least unexpected element of the solution
3 respondents did not include this element in their ranking

The surface quality (the feel) of the floor and trash can as you approach it Average 2.92

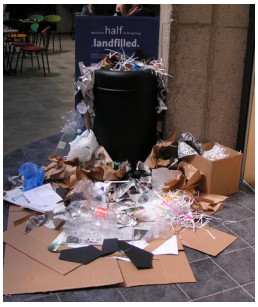
0 respondents felt that this was the most unexpected element of the solution
5 respondents felt that this was the second most unexpected element
3 respondents felt that this was the third most unexpected element
4 respondents felt that this was the least unexpected element of the solution
8 respondents did not include this element in their ranking

The added graphic piece that fits into the trash can Average 2.43

5 respondents felt that this was the most unexpected element of the solution
2 respondents felt that this was the second most unexpected element
3 respondents felt that this was the third most unexpected element
4 respondents felt that this was the least unexpected element of the solution
6 respondents did not include this element in their ranking

Intermediate Evaluation

Solution One Questionnaire Results continued



What is your impression of the trash can and how it works at the Student Alumni Union?

All respondents answered when asked about their impressions of the trash can on site at the Student Alumni Union. Most respondents commented about the clarity of the message or offered advice rather than directly addressing the impact of the trash can on location.

Location

"It is eye-catching and provocative. It is shocking to the general ambiance of the SAU. I think the display should stay up to promote sustainability and earth month."

"In a central location, so many people will see it. Makes me aware when I throw away trash."

"Great area for student traffic."

Advice

"Smell might make people more pissed off."

"I'd make the sign bigger, it's easy to think at first that it's just an overflowing trash can!"

"I think if one added something very very different, like blinking lights or a sound generator, that would stop people so you could guide them in constructive and civil conversation."

"This is a great way to get attention, very creative way to advertise information or events."

Message-Making

"A valid point that needs attention."

"Trying to teach a message."

"It shows the problem that disposable materials are causing in society."

"It's pretty effective at conveying its message, I noticed it pretty clearly."

"I would say that it works well to illustrate the point that people care extraordinarily little about how they dispose of their trash."

"It points out how much we litter."

"People will be more conscience of what they are using."

"Good idea to get across the message."

Aesthetics

"Looks cool."

"It's a good way to make us notice."

Criticisms

"It's an eyesore. Too much garbage."

"The trash can is used, but is not well monitored by the college. This hinders the purpose."

"This trash can is not working because it is full."

Intermediate Evaluation

Solution One Unobtrusive Observation Results

Observed Reactions

More people noticed the trash can than did not notice the trash can. Most viewers responded to the trash can by observing it briefly and then continuing along their original path.

Did not look at the trash can	21 people	33%
Glanced or looked at the trash can and then kept walking	37 people	57%
Stopped walking to look at the trash can	4 people	6%
Made a remark to a friend about the trash can	3 people	4%

Viewing Duration

The amount of time that each viewer spent observing the trash can ranged from 1 to 35 seconds. The average length of observation for Solution One was 4.1 seconds.

Intermediate Evaluation

Solution Two

Solution Two from a direct viewing angle

Solution Two from below

Intermediate Evaluation

Solution Two continued

Solution two installation in progress

Solution two from the most common approach angle

Intermediate Evaluation

Solution Two Questionnaire Results continued

Respondents

Solution Two was the first to be set up, and thus the first to be evaluated. Half of the evaluation period was performed simultaneously with Solution Three. There were 20 total questionnaire respondents: 12 were students, 5 faculty members, and 3 staff members. 11 of the respondents were male, 5 were female, and 4 did not specify a gender.

Approach

0 respondents were planning on using the trash can anyway

12 saw the trash can and stopped for a closer look

8 were walking by and glanced at the trash can

0 respondents walked by without noticing the trash can

A student observing Solution Two on site

Intermediate Evaluation

Solution Two Questionnaire Results continued

What is the primary message of the trash can?

When asked about the primary message of this trash can, all respondents replied to the question. The responses fell into five categories, with two responses that did not fit into any category.

Growth

"Growing trash, WOW!"

"The amount of waste has tripled and that's bad."

"There is a lot more trash."

"Trash production is growing."

"The amount of trash has tripled."

"We're making more garbage."

Waste

"We produce excessive amounts of waste."

"Ghost images of our phantom trash future."

"That Americans are becoming more wasteful."

"American generate too much waste."

Recycling

"We're idiots, listen up! Fact is good, where is the call to action. That's why I approached it. There is no 'recycle.'"

"Recycling is a vital concept to preserve the future of our ecosystem."

"Recycle, don't dispose. Make purchasing decisions that would reduce the amount of garbage in the world, thus reducing your own carbon footprint."

"We need to begin finding ways to recycle, and stop wasting so much trash."

Littering

"Throw stuff out."

"To make students aware of how much trash is generated and where it belongs."

"People are throwing trash on the floor and people need to worry about it."

The Look of the Trash Can Itself

"Our trash can is not a fair representation of how much trash is thrown away annually."

"To graphically illustrate the growing problem of waste management and its effects on the environment."

"It shows the garbage can as it really looks."

Outlying Responses

"Crime scene investigation"

"Corporations don't care about it, they actually make the most trash!"

Intermediate Evaluation

Solution Two Questionnaire Results continued

How did you react to this trash can?

Respondents were asked to rank the degree to which they agreed with each statement on a scale from one to five. Averages were calculated by adding the total responses and dividing by the number of respondents. Users agreed strongly with those statements with the highest averages.

This trash can caught my attention today Average 4.8

17 respondents strongly agreed by marking 5

2 respondents agreed by marking 4

1 respondent somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

I noticed the trash can from a distance Average 4.12

11 respondents strongly agreed by marking 5

4 respondents agreed by marking 4

1 respondent somewhat agreed by marking 3

2 respondents disagreed by marking 2

1 respondent strongly disagreed by marking 1

The trash can could be used as a conversation piece Average 4.47

9 respondents strongly agreed by marking 5

10 respondents agreed by marking 4

0 respondents somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

The additions to the trash can help convey the message Average 4.42

10 respondents strongly agreed by marking 5

7 respondents agreed by marking 4

2 respondents somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

The use of the area surrounding the trash can is unexpected Average 3.95

8 respondents strongly agreed by marking 5

5 respondents agreed by marking 4

4 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

1 respondent strongly disagreed by marking 1

Intermediate Evaluation

Solution Two Questionnaire Results continued

What are the most unexpected elements of this trash can installation?

Three out of the 20 respondents did not rank from one to five, but rather put a check mark next to the one or two variables that they felt to be the most unexpected. Averages were calculated by multiplying the number of users by the score that they chose, and then dividing the total by the number of users minus the number that did not respond. Note: those decisions with comparatively lower average scores are the most unexpected.

The outlines are produced using a temporary material like white tape Average 3.92

2 respondents felt that this was the most unexpected element of the solution

5 respondents felt that this was the second most unexpected element

5 respondents felt that this was the third most unexpected element

5 respondents felt that this was the least unexpected element of the solution

3 respondents did not include this element in their ranking

The use of only black and white Average 2.3

6 respondents felt that this was the most unexpected element of the solution

4 respondents felt that this was the second most unexpected element

4 respondents felt that this was the third most unexpected element

5 respondents felt that this was the least unexpected element of the solution

3 respondents did not include this element in their ranking

The outlines mirror the shape of the real trash can Average 1.62

7 respondents felt that this was the most unexpected element of the solution

7 respondents felt that this was the second most unexpected element

4 respondents felt that this was the third most unexpected element

1 respondent felt that this was the least unexpected element of the solution

1 respondent did not include this element in their ranking

The growth of the outlines implies the growth of the trash can Average 1.65

10 respondents felt that this was the most unexpected element of the solution

2 respondents felt that this was the second most unexpected element

1 respondent felt that this was the third most unexpected element

4 respondents felt that this was the least unexpected element of the solution

3 respondents did not include this element in their ranking

Intermediate Evaluation

Solution Two Questionnaire Results continued

What are your impressions of the trash can and how it works at the Student Alumni Union?

Seventeen out of 20 respondents answered when asked about their impressions of the trash can on site at the Student Alumni Union. None of the respondents commented on context. Rather, answers ranged broadly from comments about aesthetics to viewer response to communication value.

Advice

"Do it all over campus to get results!"

"Needs to be more creative since we have an art school."

"Doesn't a bigger trash can signal that there's plenty of room for more waste (vs. super small)?"

Viewer Reaction

"It makes people think and hopefully talk."

"I think the large size of the display captures attention."

"It is interesting, a lot of people walk by it so it makes an impact and makes you think."

"People will definitely react positively."

Communication

"Great for communicating the message!"

"Thought it was a good visual to convey the message."

"Very effective, great location. Meaning comes across immediately."

"Visual representations of statistics often convey a stronger message than numbers alone."

"It is an interesting idea, hopefully more people will begin to realize the underlying message."

Aesthetics

"More visible."

"Boring trash can, you made it better looking."

"Obviously too small for our needs."

Function

"This is the first object I look for when I need to dispose of something."

"Stores garbage, emotionless."

Intermediate Evaluation

Solution Two Unobtrusive Observation Results

Observed Reactions

The vast majority of viewers noticed this solution; the 23% of viewers that walked by without looking at the trash can approached from the reverse (the solution was behind them).

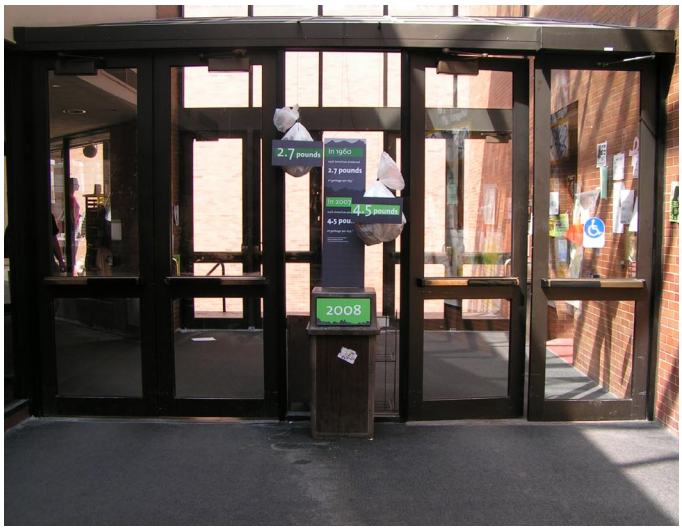
Did not look at the trash can	14 people	23%
Glanced or looked at the trash can and then kept walking	18 people	30%
Stopped walking to look at the trash can	17 people	28%
Made a remark to a friend about the trash can	11 people	18%

Viewing Duration

The amount of time that each viewer spent observing the trash can ranged from 1 to 30 seconds. The average length of observation for Solution One was 8.9 seconds.

Intermediate Evaluation

Solution Three



Solution Three

Solution Three details

Intermediate Evaluation

Solution Three continued

Solution Three installation

Existing door frame and Solution Three hanging mechanism

Intermediate Evaluation

Solution Three Questionnaire Results

Respondents

Solution Three had 20 total questionnaire respondents: 18 of which were students, 1 faculty member, and 1 staff member. Six of the respondents were male, 7 were female, and 7 did not specify a gender.

Approach

2 respondents were planning on using the trash can anyway

4 saw the trash can and stopped for a closer look

9 were walking by and glanced at the trash can

5 did not notice the trash can

Respondent approaching Solution Three

Intermediate Evaluation

Solution Three Questionnaire Results continued

What is the primary message of this trash can?

When asked about the primary message of Solution Three, two respondents did not answer the question. The remaining 18 responses can be organized into five categories.

Increase of Waste Production

"To decrease the amount of trash."

"American trash production has risen drastically."

"People make more garbage."

"As the years pass there is more garbage."

"People throw away a lot more than they did 50 years ago."

"We produce three times more garbage now compared to 40 years ago."

"The amount of trash is increasing."

Recycling

"Environmental awareness, trash versus recycle."

"Reminder about the importance of recycling."

Garbage and Waste Generation

"Americans are wasteful."

"We make a lot of garbage."

"To show the waste products that humans generate."

Message Making

"To bring attention to how much waste we produce."

"To get the message across directly. It works!"

Confusion

"?"

"Don't know!"

"We're throwing this year, 2008, away?"

"Amount of trash produced by Americans?"

Intermediate Evaluation

Solution Three Questionnaire Results continued

How did you react to this trash can?

Users agreed strongly with those statements with the highest averages. Some respondents did not respond to every question.

This trash can caught my attention today Average 3.95

9 respondents strongly agreed by marking 5

6 respondents agreed by marking 4

0 respondents somewhat agreed by marking 3

2 respondents disagreed by marking 2

2 respondents strongly disagreed by marking 1

I noticed the trash can from a distance Average 3.56

8 respondents strongly agreed by marking 5

2 respondents agreed by marking 4

5 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

3 respondents strongly disagreed by marking 1

The trash can could be used as a conversation piece Average 3.55

5 respondents strongly agreed by marking 5

5 respondents agreed by marking 4

5 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

2 respondents strongly disagreed by marking 1

The additions to the trash can help convey the message Average 4.0

6 respondents strongly agreed by marking 5

10 respondents agreed by marking 4

2 respondents somewhat agreed by marking 3

0 respondents disagreed by marking 2

1 respondent strongly disagreed by marking 1

The use of the area surrounding the trash can is unexpected Average 3.88

8 respondents strongly agreed by marking 5

4 respondents agreed by marking 4

3 respondents somewhat agreed by marking 3

2 respondents disagreed by marking 2

1 respondent strongly disagreed by marking 1

Intermediate Evaluation

Solution Three Questionnaire Results continued

What are the most unexpected elements of this trash can installation?

Five out of the 20 respondents did not rank from one to five, but rather put a check mark next to the one or two variables that they felt to be the most unexpected. Three out of 20 respondents did not fill out this section of the questionnaire. Averages were calculated by multiplying the number of users by the score that they chose, and then dividing the total by the number of users (subtracting the number that did not rank that element). Those elements (components) with lower average scores are the most unexpected.

The signs around the trash can are partially visible through the window Average 1.92

6 respondents felt that this was the most unexpected element of the solution
3 respondents felt that this was the second most unexpected element
1 respondent felt that this was the third most unexpected element
6 respondents felt that this was the least unexpected element of the solution
4 respondents did not include this element in their ranking

The bags are hanging from the door frame Average 2.13

6 respondents felt that this was the most unexpected element of the solution
4 respondents felt that this was the second most unexpected element
4 respondents felt that this was the third most unexpected element
2 respondents felt that this was the least unexpected element of the solution
4 respondents did not include this element in their ranking

The smaller bag is hung higher than the larger bag Average 2.36

4 respondents felt that this was the most unexpected element of the solution
4 respondents felt that this was the second most unexpected element
3 respondents felt that this was the third most unexpected element
3 respondents felt that this was the least unexpected element of the solution
6 respondents did not include this element in their ranking

Some of the accent colors used in the signs do not appear on site Average 2.53

5 respondents felt that this was the most unexpected element of the solution
1 respondent felt that this was the second most unexpected element
5 respondents felt that this was the third most unexpected element
4 respondents felt that this was the least unexpected element of the solution
5 respondents did not include this element in their ranking

Intermediate Evaluation

Solution Three Questionnaire Results continued

What are your impressions of this trash can and how it works at the Student Alumni Union?

Fourteen out of 20 respondents answered when asked about their impressions of the trash can on site at the Student Alumni Union.

Location

"It would be more effective if it were placed next to compost and recycling bins, or better yet, at the checkout at Walmart to say 'don't buy so much.'"

"I did not expect to see it; therefore I noticed it."

"Eye-catching, profound, graphic. Good location for it."

"I think it's a cool idea, but if it were pulled away from the wall it would be more noticeable."

Advice

"Larger slogan."

"More noticeable from one side, green is a well used color."

"Interesting, but the trash can lid with the date seems confusing."

"Makes me want to use another garbage can because this one is threatening. Makes me feel a bit guilty."

Viewer Response

"I think people will think about the numbers and how their own output compares to those."

"Hopefully it will make people consider for a moment what they throw away on a daily basis."

"I'm pretty amazed about waste consumption."

Message Making

"It's effective at portraying a message."

Vague

"It collects garbage, it does a good job."

"It collects garbage."

"It's good."

"It's a can with some eco-propaganda bullshit on it. Whatever."

Intermediate Evaluation

Solution Three Unobtrusive Observation Results

Observed Reactions	**Did not look at the trash can**	44 people	66%
	Glanced or looked at the trash can and then kept walking	20 people	30%
	Stopped walking to look at the trash can	5 people	7.5%
	Made a remark to a friend about the trash can	1 person	1.5%

Viewing Duration

The amount of time that each viewer spent observing the trash can ranged from 1 to 30 seconds. The average length of observation for Solution Three was 4.5 seconds.

Intermediate Evaluation

Summary

Challenges

Several problems presented themselves during the evaluation process. Firstly, the number of student respondents makes up an overwhelming percentage of the total number of respondents, thus providing a less diverse test group than originally planned. Also, the overlapping evaluation periods of solutions two and three may have potentially contaminated the pool of responses because there is no way to tell if a respondent filled out more than one survey. Continuity could have potentially been increased by having one evaluation assistant hand out questionnaires at all three locations consecutively.

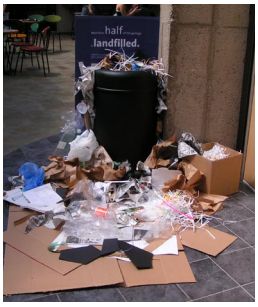
Evaluation Results

Based on the responses from the questionnaire, it was clear that the solutions varied in the degree of clarity (message-making) and unexpectedness (incongruence).

	Clarity	**Unexpectedness**	**Strongest incongruent elements**
Solution One	*Weak* All responses are related, but only three respondents identified the correct message.	*Good* Most passersby looked at the trash can, but did not stop to learn more.	Trash affixed to can and floor. Random arrangement of trash.
Solution Two	*Good* More scattered responses, but six respondents identified the primary message.	*Excellent* The trash can drew looks, made viewers stop, and promoted conversation.	Replicating the shape of the can. The growth of the outlines.
Solution Three	*Weak* This was the only trash can with a significant number of confused respondents.	*Very Weak* The majority of people walking by did not notice the trash can.	Hanging bags from door frame. Partial visibility through window.

Intermediate Evaluation

Solution One Summary



Only three respondents correctly identified the primary message of Solution One (landfilling rates), making the message clarity of this installation weak. Most respondents wrote primary messages that centered around closely related topics such as recycling, garbage production and individual action to address environmental issues.

The weak clarity of solution one may have resulted from the complexity of message presentation: this installation was composed of a two-part message that required the viewer to walk around the solution. The text panel was also relatively small compared to the expansive pile of trash on the floor, hierarchically placing the text panel as a less important component of the solution. Also, although landfilling rates were the primary message, this was not clear to most viewers because there was no indication that marked the pile of trash on the floor as destined for a landfill.

Solution One was fairly successful at drawing viewer attention: only 33% of those observed during the unobtrusive observation period failed to notice the trash can, with the majority of passersby looking at the trash can and then continuing along their original path. When respondents were asked if the use of the area surrounding the trash can was unexpected, Solution One scored the highest with an average answer of 4 out of 5.

Based on the average ranking, the most successful incongruent aspect of Solution One was the trash that was randomly arranged on the floor and up the side of the trash can. This solution showed the most evenly distributed response averages for the specified incongruent elements.

Although this solution was considered as successful at generally drawing viewer attention, it was less successful at promoting conversation or enticing viewers and respondents to stop and contemplate the solution. Perhaps this is because the location of the trash can was the busiest, most crowded site, located on the corner of a hallway next to the line for a nearby ice cream counter. These relatively constricted surroundings might have encouraged viewers to walk past the installation quickly in order to keep the walkway clear for oncoming pedestrians.

Intermediate Evaluation

Solution Two Summary

The message clarity of Solution Two was the strongest, with six respondents correctly identifying the primary message of the installation. As with Solution One, most of the other respondents identified messages directly related to the intended message. Only two respondents identified mixed or totally unrelated messages.

The overall success of Solution Two was perhaps due to the simplicity of presentation. For instance, whereas solutions One and Three both presented statistics across multiple individual panels, Solution Two had only one central text panel. In addition, the use of the white outlines further strengthened the simplicity and clarity of the solution because they were recognizable to a wide range of audience members and had immediate visual impact from many viewing distances.

Solution Two was the most successful at drawing viewer attention. None of the questionnaire respondents and only 23% of people observed during the unobtrusive observation failed to notice the trash can installation. In addition, Solution Two was the most successful at promoting conversation with a full 18% of the unobtrusive observation test group remarking to a friend after seeing it. More people stopped to observe solution two than either of the other installations. The average length of observation time was also the longest.

When asked directly if the trash can caught their attention, the average response was 4.8 out of 5, the highest average agreement for any question on any installation. In addition, when asked if they noticed the solution from afar, the average response was 4.12, much higher than either of the other installations. The shape and sizes of the white outlines were identified as the most successful incongruent elements of Solution Two, while the temporary material (tape) and absence of color were identified as less successful and more expected. Overall, however, Solution Two was the most successful in terms of both message clarity and overall incongruence.

The context surrounding Solution Two had the least amount of visual distraction, the primary visual element being a plain, brick wall backing the installation. This helped to call attention to the solution because it contrasted greatly with the site. Also, Solution Two was the only outdoor installation, allowing it to be seen from much greater distances than the other two applications. The outdoor context not only allowed viewers to see the solution from much farther away, it was also successful at drawing the attention of passersby who were not planning on entering the Student Alumni Union.

Intermediate Evaluation

Solution Three Summary

Results about message clarity of Solution Three were mixed, with a large number (seven total) of respondents correctly identifying the theme of the primary message. At the same time, Solution Three was the only trash can installation with a group of respondents that could not identify any specific message. Due to this confusion, the message clarity of Solution Three is regarded as weak.

The weakness of the message clarity may have resulted from the relative complexity of message presentation. Solution Three's statistical message was split among one large and three smaller panels, perhaps adding to the confusion of the respondents. Also, Solution Three's textual component was the longest and most complex including information from 1960, 2007 and 2008.

Solution Three was the least successful at drawing viewer attention. In the unobtrusive evaluation, a full 2/3 of passersby did not even notice the solution, especially those just entering the building and seeing this installation from the reverse, or secondary, side.. In addition, five of the survey respondents did not notice the trash can until approached by the evaluation assistant. Several respondents also picked up on the fact that Solution Three did not draw adequate attention, offering advice about the location of the trash can, to increase its visibility. The most successfully incongruent aspects of the solution were the trash bags hanging from the door frame and the partial visibility of the trash bags through the window.

The relative weakness of Solution Three perhaps resulted from the specific selected site. The installation was located in a busy doorway between two sections of the building. The windows in the door frame allowed respondents and passersby to see beyond the installation, including additional doors to the outside, an ATM area and many flyers and other visual messages. These elements could have acted as visual distractions, making the solution blend into the visually-busy surroundings. Although the solution was designed to be viewed from both front and back through the window, however the door frame and glare of the glass made this almost impossible. This may have accounted for the high number of viewers that did not notice the solution when approaching from the back side.

Significance to this thesis study

The intermediate evaluation marked an important phase in the design process because it provided a basis for comparing the three solutions, as well as helped to identify the most and least successful aspects of each installation.

Across all three solutions, the vast majority of respondents agreed that the contextual additions to each trash can helped to convey each given message. Most respondents also agreed that the trash can installations were unexpected given the context of the Student Alumni Union. These findings support the premise of this thesis: expanding a solution to address the specific qualities of the physical context increases viewer attention and strengthens message-making.

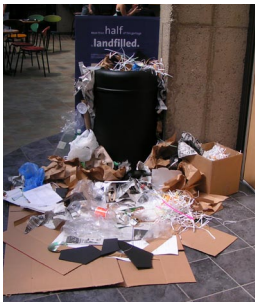
Implementation

Introduction

Design Modifications

The final designs for all three trash can installations were created using feedback from advisors and the intermediate evaluations (pages 99 through 129). The following list represents a number of proposed alterations and additions to each solution, with each change intended to increase both the message clarity and incongruence of each installation.

Solution One



To Enhance Message Clarity

- Increase the size of the sign in relation to the amount of trash.
- Emphasize cutting the trash can in half.
- Include photographic elements depicting an actual landfill.
- Add additional information guiding viewers to resources about the topic.

To Enhance Incongruity

- Include additional multi-media elements such as light, sound and smell.
- Move the solution to the middle of a pedestrian path.

Solution Two

To Enhance Message Clarity

- Adopt the solution across additional outdoor contexts.
- Create a series of "inverse" solutions that replicate the garbage can at one-third the scale.
- Provide additional resources for viewers who want more information.

To Enhance Incongruity

- Use a less expected method to create the outlines (for example, attaching crumpled paper).
- Instead of outlines on the wall, create a three-dimensional structure that sits over the trash can.
- Design additional versions of the application for other objects (for example, a drinking fountain).

Solution Three

To Enhance Message Clarity

- Include additional bags of trash showing incremental jumps from 1960 to today.
- Increase the size of the central panel so that it fills the entire window.
- Hang trash bags on both sides of the door frame.
- Add additional information guiding viewers to resources about the topic.
- Make the trash bags larger overall.

To Enhance Incongruity

- Use an unexpected color palette to distinguish the solution from the surroundings.
- Move the installation away from the windows and doors, and use an alternate architectural element from which to hang them.

Implementation

Final Design, Solution One

According to the results of the Intermediate Evaluation, Solution One was successfully incongruent, however it lacked message clarity (please see page 127). Based on this feedback, the primary additions to the final version of this solution centered around focusing the viewer on landfilling and landfilling rates. The sizes of the text and sign were doubled to make the statistics more visible, and a landfill silhouette was created across the top. Bags of trash were added to the general pile of garbage, better replicating the kinds of waste often found at a landfill.

Proposed final installation on site, front and back sides

Implementation

Final Design, Solution Two

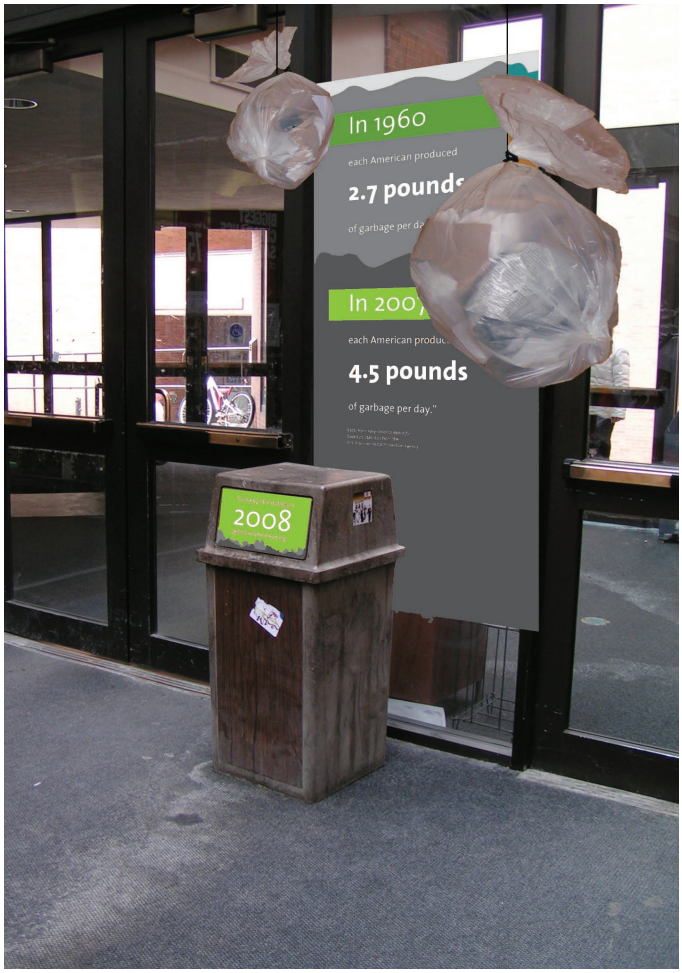
According the to Intermediate Evaluation, Solution Two was successful in terms of both message clarity and incongruence given the specific physical context. Therefore, design modifications to this solution were minimal. The outlines were made thicker and reflective to further increase visibility from a distance. As with the other two solutions, additional text information was added to point interested viewers toward related resources about ecological issues.

Proposed final installation

Implementation

Final Design, Solution Three

Solution Three was the weakest overall, in terms of both message clarity and incongruence. To correct this, the placement decisions for the statistics have been simplified; rather than existing on four panels, the majority of information is located on one large panel that is designed to completely fill the central glass pane between the two doors. To improve incongruence, the difference in size between the two trash bags has been exaggerated.



Proposed final installation on site

Dissemination

Short Term Dissemination Possibilities

Thesis Exhibition

A thesis exhibition was installed at the Bevier Gallery at the Rochester Institute of Technology in mid March 2008. The exhibit presented the content of this thesis study to viewers across a series of large presentation panels. The main feature of the exhibit was an eight-foot span of wall covered with a wide range of examples identified during the Research and Synthesis phases of this thesis study.

The exhibition was designed to clearly present the ideas of congruence, incongruence and context to a public audience. Planning the exhibition simultaneously helped illuminate connections and identify key themes across the study. Please see Appendix D on page 166 for the full exhibition panel sequence.

Graduate Thesis Exhibition
Bevier Gallery
Rochester Institute of Technology
(Sarah M. Kirchoff 2008)

Thesis Peer Presentation

In early May 2008, a digital presentation was shared with faculty and first-year students in the Graduate Graphic Design MFA Program. It was important to clearly introduce the viewers to the terms of congruence and incongruence, and then explain how these techniques could potentially be used to create harmony or disjunction between a design solution and its surrounding context. The final application of this thesis study was also a focus because it represented additional involvement that had not yet been completed by the time of the thesis exhibition.

Dissemination

Long Term Dissemination Possibilities

Long term dissemination of the findings of this thesis study may take several forms, including articles for both print magazines and online journals, presentations to professional clubs and organizations, and the reproduction of the final design applications across additional contexts. These are promising outlets for dissemination because they relate to or explore issues of environmental graphic design or sustainability. The readers of such publications and members of these organizations may also be aware of, and interested in, issues of context and design.

Presentations

Designing for the 21st Century IV

The *Designing for the 21st Century III* conference was held in December, 2007, and drew delegates from more than 30 nations. The conference focuses on opening a dialogue between developed and developing countries about how to create sustainable, universal design. Although the statistics used in the trash can installations specifically refer to America, statistics from other countries, and even on a global scale, could be applied to the project. A presentation of issues relating to physical context, pollution and consumption could be presented at a future conference to reintroduce a wider audience to site-specific design issues.

The Society for Environmental Graphic Design (SEGD)

SEGD, introduced on page 8, is a national organization of environmental graphic designers. The group is interested in many issues that relate to this thesis, including the built environment, physical context, site, wayfinding and visual communications. SEGD is multidisciplinary, and is concerned with issues of the physical and built environment: these two factors make the group ideal as an audience for a presentation of this thesis study focusing on physical context across numerous design disciplines.

Publication

Good Network

Through a print magazine, online community, films and local events, *Good* is a media network that seeks to present relevant, current content about emerging national and global issues. An article featured in *Good* Magazine could not only outline the definitions of congruence, incongruence, context and other important terms, it could also include directions for replicating the final trash can installations. Such an article could present meaningful, relevant information about the significance of context to a wide range of readers and viewers.

Application Reproduction

The three trash can installations could be further streamlined, and then recreated in a number of contexts, including universities, office buildings, street corners and other public spaces. Dissemination of this kind could be facilitated by donating the design to an environmental organization that would in turn use its own resources to produce and distribute the installations. In the more immediate future, the members of the Student Environmental Action League (please see page 136) have shown interest in reinstalling and expanding all three trash can solutions in their original contexts in the fall of 2009.

Retrospective Evaluation

Outside Evaluation

The Retrospective Evaluation was designed to test the message clarity and incongruence of the final versions of the applications (depicted on pages 131-133). The Retrospective Evaluation was conducted with RIT's Student Environmental Action League (SEAL) on May 9, 2008 at the club's weekly meeting. The members of the Student Environmental Action League have expertise in the outside content of this thesis study, especially environmental messages related to pollution and consumption.

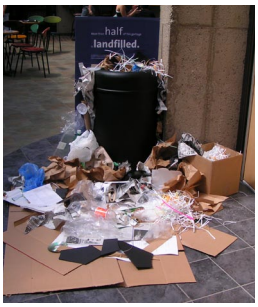
Although the students in SEAL do not have backgrounds in design or issues related to context, they have expertise with the green movement and environmental messages such as those presented by the three trash can installations. SEAL members were therefore instrumental in judging message clarity, having seen many presentations of environmental messages from other organizations. Many SEAL members were also a part of the Intermediate Evaluation test group and thus were exposed to both the intermediate and final versions of the installations.

Eight members of SEAL were presented with a questionnaire to complete while viewing plans for the proposed final applications. Background information about the project was also provided to each of these evaluators. Please see Appendix C on page 158 for a complete copy of the Retrospective Evaluation form provided to SEAL members.

Retrospective Evaluation

Outside Evaluation Results, Solution One

Message Reception



The vast majority of the retrospective evaluators correctly identified the message of Solution One. The answers from all the club members are listed below, with those closest to the actual message appearing at the top of the list.

"To illustrate just how much trash ends up in the landfill."
"People create a lot of trash and most of it just sits in landfills."
"That we landfill a large portion of our trash. Essentially the message is, we throw a lot away."
"We throw away many items that end up in landfills. Makes us consider our disposal methods."
“The primary message is that Americans generate a lot of waste every day. This trash can also shows that most of what is landfilled is actually material that could be recycled.”
"That because we only experience our lives through such a limited perspective it is hard to quantify the magnifications of our society on a larger scale. We make a larger impact than we think."
"To convey our accumulation of waste and possibly influence the way people view waste."
"People don't recycle like they should and it creates a lot of waste."

Site Selection

The SEAL members offered a variety of responses when asked about the interaction between Solution One and its physical context, most relating to the general success of the installation.

"A very unique way of getting the message of over-consumerism across."
"I thought it got the message out there fairly well."
"It is pretty interesting and would get people talking."
"It would catch the attention of the passerby. It makes a statement."
"I feel physically showing the trash like this catches people's attention and makes them think about why this is so."
"It's a definite attention-getter. I feel like its exaggerated yet unexaggerated because it is a factual statistic."
"My impression is that people need to better understand our impact as a whole and this helps."
"This trash can is in an excellent place for getting the attention of many students, faculty and staff."

Advice

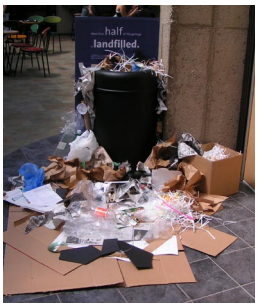
Only one student offered advice to improve Solution One in terms of meaning:
"The half-landfilled side isn't completely clear what it means."

Most retrospective evaluators left this question blank, or stated that they did not have any additional feedback.

Retrospective Evaluation

Outside Evaluation Results, Solution One continued

User Reaction



Respondents were asked to rank the degree to which they agreed with each statement on a scale from one to five. Averages were calculated by multiplying the number of respondents that chose each ranking, and then dividing this number by the total number of respondents. Users agreed most strongly with those statements with the highest averages.

This trash can would catch my attention Average 4.5

5 respondents strongly agreed by marking 5

2 respondents agreed by marking 4

1 respondent somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

I would notice the trash can from a distance Average 3.86

2 respondents strongly agreed by marking 5

2 respondents agreed by marking 4

3 respondents somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

The trash can could be used as a conversation piece Average 4.38

5 respondents strongly agreed by marking 5

2 respondents agreed by marking 4

0 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

0 respondents strongly disagreed by marking 1

The additions to the trash can help convey the message Average 4.5

6 respondents strongly agreed by marking 5

1 respondent agreed by marking 4

0 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

0 respondents strongly disagreed by marking 1

The use of the area around the trash can is unexpected Average 4.38

4 respondents strongly agreed by marking 5

3 respondents agreed by marking 4

1 respondent somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

Retrospective Evaluation

Outside Evaluation Results, Solution Two

Message Reception

All of the retrospective evaluators correctly identified the primary message of Solution Two:

"The primary message is that Americans now generate much more garbage than they have in the past; three times as much (almost) since 1960."
"That as society has 'matured' our habits encourage greater use and therefore more waste. After all, we are a 'disposable' society."
"The accumulation of waste."
"To represent the rapid growth of waste in America."
"We create a lot more waste than we used to, and it adds up."
"People are generating more trash than they used to."
"Our waste has tripled since 1960."

Site Selection

Some SEAL members thought that Solution Two was effective on site, while others did not:

"I really liked this display. I don't see how anyone could walk by and not notice it. It is very simple, gets the point across, and I would have liked it to stay up for the whole month."
"It gives a good visual representation of the message. It makes you think."
"I think this would definitely be able to catch more people's attention because it is white tape on a dark background. It's very effective."
"The trash can is almost too easy to over look. The outlines almost represent artistic graffiti which might make me pass by."
"While the large outline of a trash can help to give a visual, I don't feel it's quite as effective as Solution One. It doesn't grab your attention quite the same."
"Not as interesting as the first one."
"I wonder why Solution Two outlined the trash can... did it die?"

Advice

The retrospective evaluators had many points of advice to improve Solution Two, with the vast majority commenting on the size of the semi-circular sign in relation to the outlines.

"Maybe the sign with the fact could be even bigger, to be read from farther away."
"I feel the message is admirable but a little more could be done to draw attention. I feel a more prominent sign might help state the case to more passersby."
"I think it's effective as is. People will be drawn by the tape outline and, as they get curious as to what it is, they'll move closer to read the fact."
"Perhaps use different sized trash cans to show this concept instead?"
"Have the larger trash cans more noticeable, maybe 3D? Though I like this, too."
"You could say something about how much the population has increased, or how much we are throwing out per person."
"Maybe no chalk outline."
"Trash, and in essence consumption, has increased dramatically."

Retrospective Evaluation

Outside Evaluation Results, Solution Two continued

User Reaction

Respondents were asked to rank the degree to which they agreed with each statement on a scale from one to five. Averages were calculated by multiplying the number of respondents that chose each ranking, and then dividing this number by the total number of respondents. Users agreed most strongly with those statements with the highest averages.

This trash can would catch my attention Average 4.63

5 respondents strongly agreed by marking 5

1 respondent agreed by marking 4

2 respondents somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

I would notice the trash can from a distance Average 4.13

3 respondents strongly agreed by marking 5

3 respondents agreed by marking 4

2 respondents somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

The trash can could be used as a conversation piece Average 4.5

5 respondents strongly agreed by marking 5

2 respondents agreed by marking 4

1 respondent somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

The additions to the trash can help convey the message Average 4

4 respondents strongly agreed by marking 5

3 respondents agreed by marking 4

0 respondents somewhat agreed by marking 3

1 respondent disagreed by marking 2

0 respondents strongly disagreed by marking 1

The use of the area around the trash can is unexpected Average 4.38

3 respondents strongly agreed by marking 5

5 respondents agreed by marking 4

0 respondents somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

Retrospective Evaluation

Outside Evaluation Results, Solution Three

Message Reception

All of the retrospective evaluators correctly identified the primary message of Solution Three, however the answers were far more vague than for either Solution One or Solution Two.

"How people produce more waste currently."
"The amount of trash we produce is increasing with time."
"People are creating more trash than they used to."
"We produce a lot more waste and it's A LOT of trash."
"To show the increase in individual waste output."
"That since the 1960s we've accumulated about two times as much trash."
"That we have increased the amount of disposables we use daily."
"The primary message is that Americans are producing more garbage than in the past."

Site Selection

The reception of Solution Three on site was mixed, with some retrospective evaluators commenting that it was eye-catching, while others thought that it was less imaginative than the other solutions.

"I thought the message was good, but the placement was bad."
"This one has the information I was looking for in number two."
"I like the part on the trash can flap, it conveys that we should and can change the statistic."
"I feel it's very eye-catching to see trash bags suspended in the air like that, which I hope would make people read the sign."
"The text is attractive, but I feel like this one was less imaginative. However, the hanging trash bags I feel would get a lot of attention."
"I think the size of the comparison is needed to help visualize and quantify the size of the dilemma."
"This is a very good visual, showing the size of 2.7 pounds and 4.5 pounds, instead of just listing the fact. This is also in a very good location to draw attention."

Advice

SEAL members offered advice to improve many aspects of Solution Three:

"Less floating trash might be cool."
"With the trash bags, have one for each rate for a clearer visual representation of how much trash that is."
"Maybe add more color to the trash can itself?"
"The composition could be more cohesive, I think the bags might also get in the way of the text, though the numbers are easy to read so that's great."
"Maybe an emphasis on recycling? How much of that 'waste' really is not waste?"
"More explanation of how the statistics were calculated. Does that include all garbage from companies and public places? Is it just residential waste? How was the data gathered?"

Retrospective Evaluation

Outside Evaluation Results, Solution Three continued

User Reaction

Respondents were asked to rank the degree to which they agreed with each statement on a scale from one to five. Averages were calculated by multiplying the number of respondents that chose each ranking, and then dividing this number by the total number of respondents. Users agreed most strongly with those statements with the highest averages.

This trash can would catch my attention Average 4.5

5 respondents strongly agreed by marking 5

2 respondent agreed by marking 4

1 respondent somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

I would notice the trash can from a distance Average 3.75

1 respondent strongly agreed by marking 5

5 respondents agreed by marking 4

1 respondent somewhat agreed by marking 3

1 respondent disagreed by marking 2

0 respondents strongly disagreed by marking 1

The trash can could be used as a conversation piece Average 4.25

3 respondents strongly agreed by marking 5

4 respondents agreed by marking 4

1 respondent somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

The additions to the trash can help convey the message Average 4.5

5 respondents strongly agreed by marking 5

2 respondents agreed by marking 4

1 respondent somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

The use of the area around the trash can is unexpected Average 3.75

1 respondent strongly agreed by marking 5

4 respondents agreed by marking 4

3 respondents somewhat agreed by marking 3

0 respondents disagreed by marking 2

0 respondents strongly disagreed by marking 1

Retrospective Evaluation

Outside Evaluation Results continued

Which of the three trash can installations is your favorite? Why?

"The first, since it proposes the issue at hand and obviously displays a lifestyle (clutter and waste) that no one wants to live in or (hopefully) contribute too."

"I dislike the third due to it being a small number. I understand conveying the message brings about belligerent people and nay-sayers and going too big makes people glassy-eyed, but even to me a 1.8 pound increase doesn't shock or hit hard. I could shrug it off, though I hope no one does."

"The second installation is my favorite, because it makes the point very clearly and simply; it could be inferred without reading the fact. It draws attention, but doesn't look "trashy" or cluttered in any way."

"Personally I felt that the second trash can with the tape was most effective. It can be seen from far away and I felt the use of the tape to convey this idea of 'growing' trash was very effective."

"Solution One. Very attention-grabbing and shows the concept well."

"Solution Two. It really makes me think, and has a clear visual demonstration of its point."

"I like number one the best because it has the most eye-catching display around the trash can."

"Second one. Good color scheme, it was simple, yet it caught my eye."

"My favorite is Solution Two because it stands out, particularly due to the bricks."

Which trash can installation is most successful at conveying the message to the viewer? Why?

"Again the first due to the larger numbers and the drastic display."

"The first installation is most successful at conveying the message because the main point is that Americans generate a lot of waste and that is evident whether or not the viewer reads the whole fact, but they also have the option of reading the facts to see just how much garbage is generated."

"Again, because of the tape, I would choose the second one. It would gather a lot of curiosity about the topic."

"Number one, to see how much goes to the landfill, placing the trash out in the open definitely gets that across."

"Number three, it has clear statistics that are in a format that's difficult to ignore. It also encourages the person seeing it to change their lifestyle and try to fix this."

"Number three was the most successful because it gives information per person, so people can more closely relate to it than the other two."

"Number two had the largest contrast and largest area. Also has words to convey."

"They are equally successful: while the techniques are different, the overall message is the same. However, for the first solution it is hard to picture those numbers (250 million pounds), maybe draw an analogy?"

Retrospective Evaluation

Outside Evaluation Results continued

Which of the three trash can solutions is the most unexpected given the environment? Why?

“The first again due to it being on such a congested walkway.”

"The first is the most unexpected, because it is in a high traffic area and can’t be avoided.”

“Given the environment, I feel the second one is the best because it’s outdoors and can be easily seen. Also, not everybody goes inside the SAU, a lot of student just pass by it. This installation would be most effective in that way.“

“Probably number one because no one really expects to see trash spilled all over the floor.”

“Number one, no one expects to see a giant pile of trash in the SAU. It really catches your attention.”

“Number one is probably the most unexpected because it has piles of trash around it. And has a more three-dimensional sign.”

“The third: the floating high trash was sort of a nuisance but it was unexpected.”

“The first is the most unexpected due to the large number of disposable items.”

Retrospective Evaluation

Self Evaluation

The final three trash can installations fulfilled their primary, original goal: to use incongruent variables as a tool to draw viewer attention and improve understanding of a graphic design message. Although generally successful, there are a number of notable strengths and weaknesses that surface in retrospect.

Strengths

All three solutions were successful at drawing attention, and thus it is reasonable to assume that they were, to at least some degree, also incongruent or unexpected given their contexts. Also, the many strengths of Solution Two suggested that the most successful incongruent solutions are clear, straightforward and have as few visual variables as possible. The appropriate timing of the solutions to coincide with Earth Day was another successful factor, presenting messages seen elsewhere on campus, but in unexpected (incongruent) rather than expected (congruent) ways.

Weaknesses

The final installations became increasingly centered around garbage, trash cans, pollution and consumption (in other words, the outside secondary content of this thesis study). In fact, to the casual viewer and questionnaire respondent of the intermediate installations, context was not a concern when they approached and studied the applications. At times, it felt as though the outside content was overpowering, becoming the central focus of the installations.

The audience's diverse interpretations of the messages of the three solutions proves that there is still a level of confusion surrounding the specifics of green issues. Future versions of these applications might present the message even more clearly, perhaps by adding more textural detail or expanding the message even further into the surrounding context.

While the final design solutions focused on issues of pollution and consumption, the fabrication of the installation components was labor, energy and material intensive. T he large areas of solid ink application on the panels of color output and the use of non-biodegradeable foam core in the prototype installations might have been replaced with recycled and recyclable materials. This would further reinforce the intention of the solutions and better correspond to the other recyclable and found materials that were used.

Future Refinements

All three solutions were site-specific and extended into their surrounding environment. However, a future aim would be to identify other sites with even more individualized aspects that could further enhance and relate to each specific trash can installation. Conversely, future versions of the installations might have increased flexibility in order to work across a variety of contexts.

Conclusion

Summary

In addition to providing knowledge about primary content (physical context) and secondary content (pollution and consumption), this thesis study also provided information about design processes in both graphic design and other disciplines. Experience was also gained in the areas of pragmatics, namely solution installation and evaluation. Better time management, research strategies and organization skills were also gained from this thesis project.

This thesis focused on issues relating to physical context, site and environment. Although context is by no means a new topic in design, this thesis broke new ground in this area by finding previously unexplored relationships between related disciplines including graphic design, environmental graphic design, architecture, interior design, museum and gallery studies, and site-specific art. This thesis also analyzed and defined many specific ways that a solution can interact with its environment, expanding potential strategies pertaining to the use of congruent and incongruent decision-making in the process.

Perhaps the most successful aspect of this thesis study was the comprehensive survey of context across the disciplines listed above, and the categorization of over 200 examples of incongruence. These existing examples helped inspire new, expanded uses of context that culminated in the final trash can installations at RIT. This thesis met its goal of identifying some of the contextual concerns that are most relevant to graphic design message-making.

Due to a limit on time and resources, it was not possible to explore every specific incongruence identified during the Research and Synthesis phases of this thesis study (please see page 50 for a complete list). An interesting continuation of this application would be the creation of an expanded series of installations to demonstrate the use of all incongruent relationships.

The findings of this thesis study may be an influence on graphic design problem solving in many ways. Thinking about context (both physical and cultural) from the initial planning stages of design problem-solving helps the designer best control the integration of the solution into the intended viewing context. Context has an effect on the viewing of every graphic design solution, and is, or should be, a universal concern to all practitioners.

Glossary

Context	**Congruence**	Similarity or likeness in a comparison of objects, artifacts or solutions. A congruent design solution adopts selected features of the site and incorporates them into the design. This definition was created for the purposes of this thesis study.
	Context	From the Latin root *contextus*, or "weaving together" (Bloomsbury). Everything exterior to an object, artifact or solution that influences its perception. Definitions of context include both the site and physical surroundings, as well as cultural climate.
	Incongruence	An adjective meaning different, rebellious, unexpected, or dissimilar. Incongruent solutions rebel against their site, consciously utilizing elements and variables absent from the site. This definition was created for the purposes of this thesis study.
Environmental Graphic Design	**Cognitive Mapping**	"A mental structuring process that integrates into a whole what has been perceived in parts" (Arthur 23). The process of weaving together an understanding of space from a series of vantage points, both percieved and imagined.
	SEGD	The Society for Environmental Graphic Design, founded in 1974. According to the group's Web site, "SEGD is the global community for people who work at the intersection of communication design and the built environment."
	Spatial Orientation	"The process of devising an adequate cognitive map of a setting along with the ability to situate oneself within that representation" (Arthur 23). Identifying one's own position in space, especially in relation to other objects and cardinal directions.
	Wayfinding	"The process of reaching a destination, whether in a familiar or unfamiliar environment. Wafinding is best defined as spatial problem solving" (Arthur 22). The purposeful movement of bodies in space.
Architecture	**Programming**	The fact-gathering phase of the architectural process, before the design of the building has begun; the search for information to clarify, understand and state an architectural problem. "If programming is problem seeking, then design is problem solving" (Peña 15).

Glossary

Museum, Exhibition and Gallery Studies	**Cone of Vision**	"The vertical and horizontal limits of vision that comprise the total area that the average viewer can see at one given moment" (Klein 71).
	Exhibition	"Exhibitions are environments in which individuals learn and experience on many levels, both intellectually and emotionally." (Witteborg 2)
Site-Specific Art	**Destination Art**	"Destination art is art that must be seen *in situ*. The term recognizes the impact of the art's context, that the location is an important part of experiencing and understanding the work" (Dempsey 7).
	Installation Art	A type of art that the viewer enters and is surrounded by, and sometimes physically engages with. "Installation Art... has a desire to heighten the viewer's awareness of how objects are positioned (installed) in space, and of our bodily response to this. A work of installation art, the space, and the ensemble of elements within it, are regarded in their entirety as a singular entity. Installation art creates a situation into which the viewer physically enters, and insists that you regard this as a singular totality" (Bishop 6).
	Land Art	A category of site-specific artwork that includes mostly large, dynamic sculptures that interact with their surroundings on many levels. Examples include earth art, land art, sculpture parks, etc. "Earth artists explore the potential of landscape and site for their art. Rather than representing nature, they utilize it directly in work that takes the form of immense sculptures in the landscape or monumental forms made from the earth itself" (Dempsey 8).
	Site-Specific Art	Those artworks that respond in some way to their physical surroundings. Site-specific artists take into account the final destination, environment and context when determining variables such as size and scale, color, orientation in space, and transparency. "Works of art created in relationship to particular physical places, either indoors or out-of-doors, to such a degree that their character or meaning would be lost or changed if they were ever moved somewhere else" (Walker 594).

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Appendix A

Information Index

Information Index from *Problem Seeking* by William Peña (Page 36)

	Goals	Facts
Function	Mission	Statistical data
People	Maximum number Individual identity Interaction/privacy Ranking of values	Area parameters Manpower/workloads User characteristics Community characteristics
Activities	Exercise of authority Security Progression Segregation Encounters Efficiency	Authority structure Value of potential loss Time-motion study Traffic analysis Behavioral patterns Space adequacy
Relationships	Information exchange	Type/intensity
Form	Bias on site elements	Site analysis
Site	Sound structure Efficient land use	Soil analysis F.A.R. and G.A.C.
Environment	Physical comfort Life safety Sociality Individuality Encoded direction Direct entry	Climate analysis Code survey Surroundings Psychological implications Point of reference Entry symbols
Quality	Projected image Building quality level Spatial quality level Technical quality level Functional quality level	Generic nature Cost/S.F. Building efficiency Equipment costs Area per unit
Economy	Extent of funds	Cost parameters
Initial Budget	Cost effectiveness Maximum return Return on investment	Maximum budget Time-use factors Market analysis
Operating Costs	Minimize operating costs Maintenance and operating costs	Energy source-costs Activities and climate factors
Lifecycle Costs	Reduce life cycle costs	Economic data
Time	Historic preservation	Significance
Past	Static/dynamic activities	Space parameters
Present	Change Growth	Activities Projections
Future	Occupancy date Cost controlled growth	Durations Escalation factors

Concepts	Needs	Problem
Service grouping People grouping Activity grouping Priority Hierarchy Security controls Sequential flow Separated flow Mixed flow Relationships Communication	Space requirements Parking requirements Outdoor space requirements Functional alternatives	Unique and important performance requirements which will shape building design
Enhancement Special foundations Density Environmental controls Safety precautions Neighbors Home base Orientation Accessibility Character Quality control	Site development costs Environmental influences on costs Building cost/S.F. Building efficiency Equipment costs	Major form considerations which will affect building design
Cost control Efficient allocation Multi-function Merchandising Energy conservation Cost control Cost control	Cost estimate analysis Energy budget (if reqd) Operating costs (if reqd) Life cycle costs (if reqd)	Attitude towards the initial budget and its influence on the fabric and geometry of the building
Adaptability Tolerance Convertibility Expansibility Linear/concurrent scheduling Phasing	 Time schedule Time/cost schedule	Implications of change/growth on long-range performance

Appendix B

Solution One Intermediate Evaluation

1 Solution Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

Please describe yourself.

Please check all that apply.

- ☐ Student
- ☐ Faculty
- ☐ Visitor to campus
- ☐ Female
- ☐ Male

How did you approach this trash can?

- ☐ You were planning on using the trash can anyway
- ☐ You saw the trash can and stopped for a closer look
- ☐ You were walking by and glanced at the trash can
- ☐ You were walking by and did not notice the trash can

What is the primary message of this trash can?

Please write one to three sentences about the message of the trash can.

How did you react to this trash can?

Please rank the degree to which you agree with the following statements.

	Agree				*Disagree*
This trash can caught my attention today	⑤	④	③	②	①
I noticed the trash can from a distance	⑤	④	③	②	①
The trash can could be used as a conversation piece	⑤	④	③	②	①
The additions to the trash can help convey the message	⑤	④	③	②	①
The use of the area surrounding the trash can is unexpected	⑤	④	③	②	①

What are the most unexpected elements of this trash can installation?

Please rank the following from one to five, with one being the most unexpected.

- ___ The bags, cardboard, and other trash that are affixed to the outside of the trash can
- ___ The random arrangement of garbage on the floor and up the side of the can
- ___ The surface quality (the feel) of the floor and trash can as you approach it
- ___ That the added graphic piece fits into the trash can

What is your impression of this trash can and how it works at the Student Alumni Union?

Please write one to three sentences about the trash can on site.

Appendix B

Solution Two Intermediate Evaluation

2 Solution Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

Please describe yourself.

Please check all that apply.

- ☐ Student
- ☐ Faculty
- ☐ Visitor to campus
- ☐ Female
- ☐ Male

How did you approach this trash can?

- ☐ You were planning on using the trash can anyway
- ☐ You saw the trash can and stopped for a closer look
- ☐ You were walking by and glanced at the trash can
- ☐ You were walking by and did not notice the trash can

What is the primary message of this trash can?

Please write one to three sentences about the message of the trash can.

How did you react to this trash can?

Please rank the degree to which you agree with the following statements.

	Agree				*Disagree*
This trash can caught my attention today	⑤	④	③	②	①
I noticed the trash can from a distance	⑤	④	③	②	①
The trash can could be used as a conversation piece	⑤	④	③	②	①
The additions to the trash can help convey the message	⑤	④	③	②	①
The use of the area surrounding the trash can is unexpected	⑤	④	③	②	①

What are the most unexpected elements of this trash can installation?

Please rank the following from one to five, with one being the most unexpected.

- ___ The outlines are produced using a temporary material like white chalk
- ___ The use of only black and white
- ___ The outlines mirror the shape of the real trash can
- ___ The growth of the outlines implies the growth of the trash can

What is your impression of this trash can and how it works at the Student Alumni Union?

Please write one to three sentences about the trash can on site.

Appendix B

Solution Three Intermediate Evaluation

3 Solution Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

Please describe yourself.

Please check all that apply.

- ☐ Student
- ☐ Faculty
- ☐ Visitor to campus
- ☐ Female
- ☐ Male

How did you approach this trash can?

- ☐ You were planning on using the trash can anyway
- ☐ You saw the trash can and stopped for a closer look
- ☐ You were walking by and glanced at the trash can
- ☐ You were walking by and did not notice the trash can

What is the primary message of this trash can?

Please write one to three sentences about the message of the trash can.

How did you react to this trash can?

Please rank the degree to which you agree with the following statements.

	Agree				*Disagree*
This trash can caught my attention today	⑤	④	③	②	①
I noticed the trash can from a distance	⑤	④	③	②	①
The trash can could be used as a conversation piece	⑤	④	③	②	①
The additions to the trash can help convey the message	⑤	④	③	②	①
The use of the area surrounding the trash can is unexpected	⑤	④	③	②	①

What are the most unexpected elements of this trash can installation?

Please rank the following from one to five, with one being the most unexpected.

- ___ The signs around the trash can are visible through both sides of the window
- ___ The bags are hanging from the door frame
- ___ The smaller bag is hung higher than the larger bag
- ___ Some of the accent colors used in the signs do not appear on site

What is your impression of this trash can and how it works at the Student Alumni Union?

Please write one to three sentences about the trash can on site.

Appendix B

Intermediate Evaluation Unobtrusive Evaluation

1 Unobtrusive Observation

Observe the trash can for 20 minutes.

Place a check mark in the appropriate category when each action occurs.

Did not look at the trash can

Glanced at the trash can

Did a double take and kept walking

Stopped walking to look at the trash can

Made a remark to a friend about the trash can

Write the approximate number of seconds that each viewer spent looking at the trash can.

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

_____ seconds _____ seconds _____ seconds _____ seconds

Appendix C

Retrospective Evaluation continued

Retrospective Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

Outside Evaluation

These three trash can installations are part of a thesis project that studied the influence of context, physical site and environment on graphic design message-making. The larger project investigated the treatment of context across a number of disciplines related to design, identifying and analyzing the specific techniques used by these disciplines to create interesting installation-context relationships.

Trash cans were selected as the final project for this larger study of context because the environmental issues of pollution and consumption have strong links to physical context, especially regarding each person's individual impact on our environment. RIT's Student Alumni Union was chosen as the site for the trash can installations due to the variety of users and diversity of activities on site.

Instructions

Please review the installation photographs and plans included with this evaluation.
Provide detailed responses to the following questions with specific examples where appropriate.
Thank you!

1 Retrospective Evaluation

Solution One

Graduate Thesis Application

Sarah M. Kirchoff

Solution One
Sarah M. Kirchoff, 2008

From the front side of this installation, the viewer can read one half of the statistic. When the viewer circles the installation, they see the large pile of garbage spilling out of the trash can onto the floor.

Appendix C

Retrospective Evaluation continued

1 Retrospective Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

Please write one to three sentences about the message of the trash can.

What is the primary message of this trash can?

Please rank the degree to which you agree with the following statements.

How would you react to this trash can?	*Agree*				*Disagree*
This trash would catch my attention	⑤	④	③	②	①
I would notice the trash can from a distance	⑤	④	③	②	①
The trash can could be used as a conversation piece	⑤	④	③	②	①
The additions to the trash can help convey the message	⑤	④	③	②	①
The use of the area around the trash can is unexpected	⑤	④	③	②	①

Please write one to three sentences about the trash can on site.

What is your impression of this trash can and how it works at the Student Alumni Union?

Please provide additional feedback about the trash can.

Do you have any general suggestions to improve this trash can installation?

Appendix C

Retrospective Evaluation continued

2 Retrospective Evaluation

Solution Two

Graduate Thesis Application
Sarah M. Kirchoff

Solution Two
Sarah M. Kirchoff, 2008

This trash can installation is created using reflective tape. The outlines measure over nine feet tall.

Appendix C

Retrospective Evaluation continued

2 Retrospective Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

What is the primary message of this trash can?

Please write one to three sentences about the message of the trash can.

How would you react to this trash can?

Please rank the degree to which you agree with the following statements.

	Agree				*Disagree*
This trash would catch my attention	⑤	④	③	②	①
I would notice the trash can from a distance	⑤	④	③	②	①
The trash can could be used as a conversation piece	⑤	④	③	②	①
The additions to the trash can help convey the message	⑤	④	③	②	①
The use of the area around the trash can is unexpected	⑤	④	③	②	①

What is your impression of this trash can and how it works at the Student Alumni Union?

Please write one to three sentences about the trash can on site.

Do you have any general suggestions to improve this trash can installation?

Please provide additional feedback about the trash can.

Appendix C

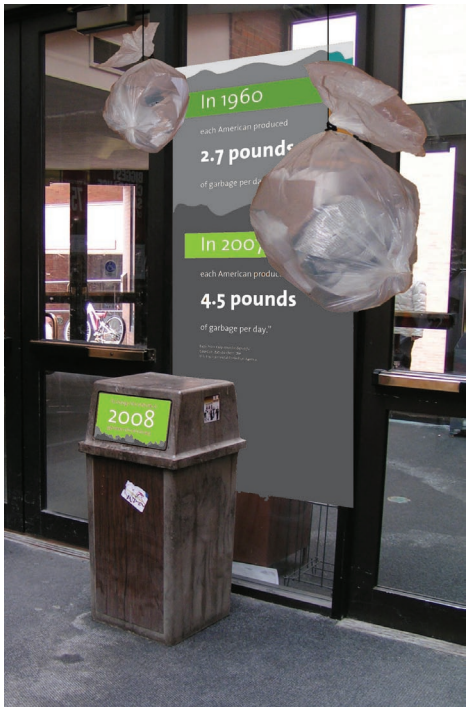
Retrospective Evaluation continued

3 Retrospective Evaluation

Solution Three

Graduate Thesis Application

Sarah M. Kirchoff



Solution Two
Sarah M. Kirchoff, 2008

The primary message is displayed on one, large sign that fills the window behind the trash can. Two trash bags (one large and one small) hang on either side of the sign.

Appendix C

Retrospective Evaluation continued

3

Retrospective Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

What is the primary message of this trash can?

Please write one to three sentences about the message of the trash can.

How would you react to this trash can?

Please rank the degree to which you agree with the following statements.

	Agree				*Disagree*
This trash would catch my attention	⑤	④	③	②	①
I would notice the trash can from a distance	⑤	④	③	②	①
The trash can could be used as a conversation piece	⑤	④	③	②	①
The additions to the trash can help convey the message	⑤	④	③	②	①
The use of the area around the trash can is unexpected	⑤	④	③	②	①

What is your impression of this trash can and how it works at the Student Alumni Union?

Please write one to three sentences about the trash can on site.

Do you have any general suggestions to improve this trash can installation?

Please provide additional feedback about the trash can.

Appendix C

Retrospective Evaluation continued

Retrospective Evaluation

Outside Evaluation

Graduate Thesis Application
Sarah M. Kirchoff

Free Answer Questions

Which of the three trash can installations is your favorite? Why?

Which trash can installation is most successful at conveying the message to the viewer? Why?

Which of the three trash can solutions is the most unexpected given the environment? Why?

Appendix D

MFA Exhibition Panels continued

The Influence of Context on Message-Making and Audience Reception in Graphic Design

Sarah M. Kirchoff
Masters Cantidate
Graphic Design MFA Program
Rochester Institute of Technology

Problem Statement

Viewer interpretation is shaped by numerous factors including content, composition and context. Context has a key role in message comprehension: the difference between how someone understands a hastily-posted event notice in the form of a photocopied flyer, and a well-funded advertisement displayed as a glossy billboard.

The meaning of a graphic design solution is greatly affected by its viewing environment: the space around it, and how it is approached and accessed. Obviously, the designer cannot control the specific life experiences that shape personal response, nor how a certain viewer may be situated in a broader, cultural context. Designers do, however, have some hand in controlling physical contextual factors that surround their graphic design solution, as well as the form that the actual solution takes, and how it is presented to the audience.

Congruence and Incongurence

When carefully constructed, content, application, display and context can work together to effectively relay an intended message to a viewer. This harmonious environmental integration is identified as congruence throughout this thesis. Conversely, planned incongruence between context, presentation and form can also be a helpful tool for designers. This thesis seeks to explore and catalogue many different kinds of incongruent relationships between solution and context.

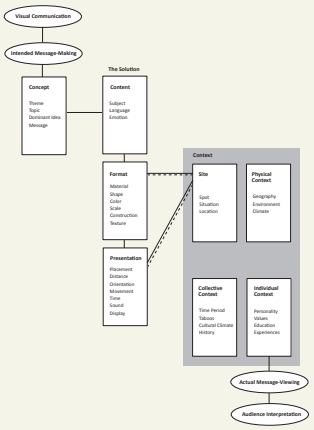
Key Questions

- How do viewers establish context?
- How can context shape viewer interpretation of a solution?
- Which tangible and intangible factors define physical context?
- How do other disciplines use context in unexpected ways?
- How can attributes related to context be defined for graphic design?
- How can designers use contextual congruities and incongruities?

Related Disciplines

Visual Communication
Environmental Graphic Design
Systems Design
Advertising
Architecture
Interior Design
Museum, Exhibition and Gallery Studies
Site-Specific Art
Art History
Photography

Explanatory Diagram



What is Context?

Cultural Context

Cultural context is composed of the broader societal tendecies that underscore the overall behavior and general thinking common to members of the same culture at the same time in history.

Cultural context is sometimes described as the ***zeitgeist***, or spirit of the age. Cultural context includes, but is not limited to, pervasive cultural themes, social codes, mores and taboos. Cultural context is the greater web within which each of us is situated. Cultural context binds groups with diverse individual contexts together to form cohesive societies.

Individual Context

Individual context is the particular vantage point from which each of us examines the world. It is composed of a person's unique personality, values, life experiences and education.

Individual context can also include considerations related to personal taste. A designer has no control over the subjective reactions, likes and dislikes of individual viewers, nor how viewers are situated in a larger cultural context.

Physical Context

A physical context is a specific site or location. Any given environment is distinguished from another by the features, or various combination of features, that make it unique. Physical context serves as the backdrop for artifacts: it is the greater space that surrounds a solution.

Physical context can be observed and sometimes controlled. Physical context is composed of both tangible and intangible variables such as wall height, floor texture, lighting, movement and sound.

Built Context

The built environment refers to human-made structures, especially buildings and the resulting rooms, hallways and other interior and exterior spaces. The built environment is produced by human interaction with a previously natural, or untouched, existing physical context.

Natural Context

Exterior context refers to the natural world, or spaces that exist outside of built structures. True exterior contexts have not been touched by human forces such as buildings and roads, and include natural features such as flora and fauna.

Appendix D

MFA Exhibition Panels continued

How can a Solution Interact with Context?

Context

Any given solution can either conform or rebel against its surrounding physical context by emulating or rejecting existing features on site.

A congruent solution harmoniously builds on the tangible and intangible variables already present on site. In contrast, an incongruent solution instead rebels or rejects the surrounding environment by using formats and presentations that do not relate to the site.

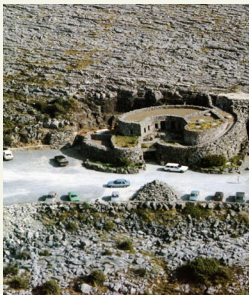
Congruent

Similar
Conventional
Expected
Consonant
Harmonious
Conforming

Congruent solutions, artifacts, objects and buildings show a clear, harmonious relationship with the environment. In an assessment of the similarities between object and site, congruence is correspondence across one or more points of comparison. Congruence offers the possibility for a partial or full parallel relationship, or limited degrees of similarity on a scale or gradient.

In mathematics, congruence refers to two numbers that have the same remainder when divided by a third number: 10 and 13 are congruent when divided by three because they both have a remainder of one. In this mathematical example, two seemingly unlike numbers are similar in this one, important way. Similarly, a design solution can be congruent to its environment in one way, two ways, or a number of different ways.

The *Ailwee Cave Visitors Center* represents a broader category of congruent site-specific solutions that harmoniously build interrelationships between format, presentation and context. Here, the architects have borrowed certain key elements of the surrounding environment, for example, the layered construction of the indigenous stone. As a result, the material, shape and texture of this building are all congruent with the immediate physical context. Although there are many existing examples of congruence, this thesis study primarily focuses on contextual incongruence.



Ailwee Cave Visitor's Center
A. Wejchert
Ireland, 1973

Incongruent

Different
Unconventional
Unexpected
Dissonate
Disjunctive
Rebellious

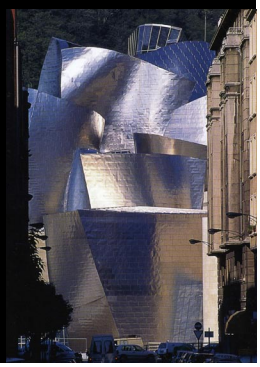
Incongruence refers to difference on one or more levels of comparison. Incongruent solutions are those that clash with or are unexpected within their viewing contexts. Incongruence is interesting because it intersects with context to draw viewer attention, promote closer inspection or conversation, and provide a strategy for extending the message to untapped or alternative audiences members.

The examples of incongruence shown within this exhibition use a number of different incongruent techniques, variables and elements to achieve unexpected relationships with the surrounding sites. The strongest incongruent attribute in each example is noted.

The same processes at work here can be adapted across numerous kinds of graphic design solutions. From public to private, simple to complex, many solutions could benefit from the inclusion of at least one incongruent relationship to draw audience attention where appropriate.

Guggenheim Museum Bilbao demonstrates the potential power of incongruent format given the context of the traditional urban environment: the material, shape, and texture all rebel against the surrounding site.

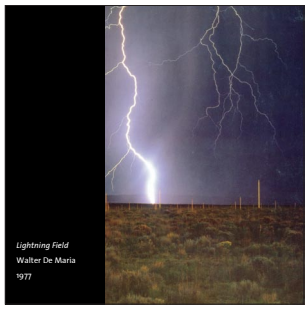
This architectural example is especially compelling because it stands for a larger body of work (across many disciplines) that takes advantage of unexpected relationships between context and other, controllable aspects of the design problem solving process.

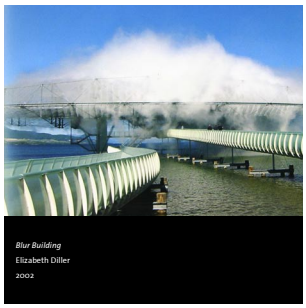


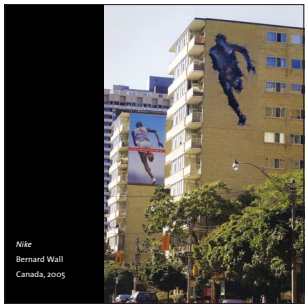
Guggenheim Museum Bilbao
Frank O. Gehry
Bilbao, 1997

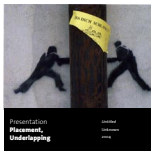
Appendix D

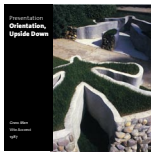
MFA Exhibition Panels continued

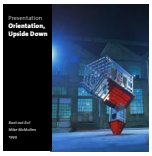












Synthesis: Cataloguing Incongruence

Matrices

Many of the unexpected solutions to the left are incongruent with their environments in more than one way. Devising a matrix that allowed for the identification of possible contextual relationships seemed to be the ideal next step for analyzing specific solutions and then comparing these solutions across disciplines.

Each solution is analyzed individually for all possible incongruent relationships with the given site. When viewed in groups, these individual matrices allow for the organization, categorization and synthesis of a wide range of examples in many disciplines. Matrices can illuminate the many incongruities found in each individual example, and also allow the reader to easily pick out convergent examples across disciplines, or demonstrate the degrees to which each incongruence is unexpected.

A selection of analyzed solutions is provided at right. There are over 50 such matrices in the full thesis documentation.

Appendix D

MFA Exhibition Panels continued

Ideation: Brainstorming Potential Design Applications

Congruent and incongruent variables have already been explored by graphic designers, environmental graphic designers, site-specific artists and architects. The examples shown within this exhibition use these variables in across a number of locations and disciplines.

To break new ground, this thesis will use these variables in previously unexplored ways to support related, outside content. The lists to the right establish a structure for random juxtaposition of potential problems, locations and incongruent variables. This method was used as a brainstorming tool to identify design application directions.

Outside Content

A relationship to physical context, location and site makes emerging environmental issues, especially those centering around pollution and consumption, conceptually-sound choices for the outside content of the final application.

Negative human impacts on the environment create current and emerging issues: much design work has already been done to bring "green" issues such as sustainability, energy consumption, and climate change to the forefront of the collective consciousness. Green messages relate to a growing social movement that focuses on increasing global environmental protection and social responsibility. Using incongruent formats and presentations of these messages could draw viewer attention, promote conversation and reach new audiences.

	Problems	**Locations**	**Incongruent Variables**
	Mindless waste	Silverware	Actual or Implied Material
	Light pollution	Cans / Bottles	Actual or Implied Shape
	Individual environmental impact	Styrofoam Cup	Internal Orientation
Sample Juxtaposition 1	Short product life cycles	Vending Machine	Temporary or Mixed Media
	Genetically engineered foods	Drinking Fountain	Altered Transparency
	Limited global resources	Packaging / Wrappers	Color Contrast
	Energy consumption	Refrigerator	Color Absence
	Smog and air pollution, emissions	Paper Products	Actual or Implied Texture
Sample Juxtaposition 2	Water scarcity and contamination	Shopping Cart	Mirroring
	Inadequate current regulations	Shower	Layering
	Unregulated trash dumping and burning	Drain / Faucet	Enlargement
	Conservation of endangered species	Sewer / Gutter	Reduction
	Finite vs. renewable resources	Trash Can / Recycle Bin	Full Orientation
	Pesticides, fertilizers and food production	Copy Machine	Framing
	Landfills, trash-buildup	Printer	Cut-out
	Recyclable materials not recycled	Gas Station	Hanging
Sample Juxtaposition 3	Materials do not biodegrede	Car / Gas Cap	Actual or Implied Movement
	Growing economic disparity	Light Switch	Proximity
	Climate change	Lamp / Bulb	Solution or Viewer Height
	Short product life cycles	Heat Vent	Growth
	Materialistic values	Thermostat	Depletion
	Hidden costs of convenient items	Bathroom	Light
	Luxuries have been turned into necessities	Pavement	Overlapping and Underlapping
	No connection to history or production	New Trees	Actual or Implied Sound

Potential Application Directions

Design Application: In-Progress Proposals

Forced juxtaposition and other brainstorming methods used in the ideation phase yielded a wide range of potential application directions, with many warranting further exploration. Three application proposals are provided here.

The site (or series of sites) of the final design application is a vital component in message-making for all three of the proposals. This connects to the primary focuses and goals of this thesis study, especially an exploration of context. All three proposals center around objects and environments that can be easily accessed and controlled on the Rochester Institute of Technology campus. This local physical context is a fitting microcasm: solutions planned for RIT could be adapted across a wide range of built contexts.

Outside Sources

Several sources were consulted for potential problems and environmentally-driven content:

The Way of Ignorance and Other Essays
Wendell Berry

The Green Consumer
John Elkington, Julia Hailes and Joel Makower

Affluenza, An All-Consuming Epidemic
John de Graff, David Wann and Thomas H. Naylor

High Noon: 20 Global Problems and 20 Years to Solve Them
J.F. Rischard

Once a final design application direction is chosen and the scope of the project is defined, additional research will be conducted to support the specific chosen subject area.

Proposal A

Environmental Problem **Short Product Life Cycles**
Location **Disposable Cup**
Incongruent Variable **Overlapping or Underlapping**

This proposal centers around the creation of object-specific, small-scale graphic design solutions made to fit existing disposable packaging for beveages and foods. Incongruence is achieved through underlapping placement and movement: As the food or drink within the container is consumed, the environmentally-driven content of each solution is revealed.

Proposal B

Environmental Problem **Individual Impact**
Location **Trash Can**
Incongruent Variable **Growth**

This proposed design application utilizes linked sites, for example trash cans or recycling bins, to display a series of messages regarding individual environmental impact. The slow buildup of trash throughout the day is emphasized by the design application which appears on the side and flap of the trash can.

Proposal C

Environmental Problem **Chemicals in Food Production**
Location **Vending Machine**
Incongruent Variable **Die cut and Transparency**

This proposed series of applications uses some of the many vending machines on campus as a component in the final solution. By unexpectedly using die cuts and transparency, this solution immediately conveys information about the dangers of products sold in the machine without totally obstructing the consumer's view.