THE SECRET
OF GRAPHIC DESIGN

MICHAEL NEWMAN

Contents

Introduction

The design process is a fluid series of endeavors whose order and components vary from designer to designer and project to project. Some practitioners focus on particular phases of the process, whether its helping clients clarify what they need or inventing visual forms that surprise and delight. This book looks at three main phases: defining problems, getting ideas, and creating form. Each section features a variety of exercises and techniques that can be mixed and matched, used singly or in combination.

We believe that nearly any person can learn to improve his or her creative abilities. “Talent” is a mysterious entity, yet the creative process tends to follow familiar pathways. By breaking down this process into steps and implementing specific methods of thinking and making, designers can free their minds to generate vibrant solutions that are satisfying to clients, users, and themselves.

Design is a messy process. Designers generate many ideas that don’t get used. They often find themselves starting over, going backwards, and making mistakes. Successful designers learn to incorporate this back-and-forth into their work flow, knowing that the first idea is rarely the last and that the problem itself often changes as the work evolves.

This book reflects the diversity of contemporary graphic design practice. Designers today are working in teams to address social problems and business challenges. They are also continuing to develop the visual language of design through the creative use of tools and ideation techniques. Designing can be an individual experience or a group endeavor. In classroom settings, design training tends to emphasize personal development, owing to the structure of educational programs and the expectations of students. Collaboration is more common In the workplace, where designers continually communicate with clients, users, and other colleagues. The exercises featured in this book include team-based approaches as well as techniques that help designers develop their own creative voices.

The concept “design thinking” commonly appears in reference to ideation, research, prototyping, and interaction with users. Alex F. Osborn’s Applied Imagination (1953) and Edward de Bono’s New Think (1967) are early books that helped explain and popularize methods of creative problem-solving. The Universal Traveler, published by Don Koberg and Jim Bagnall in 1972,

“ Once a new idea springs into existence it cannot be unthought. There is a sense of immortality to a new idea.”
Edward de Bono

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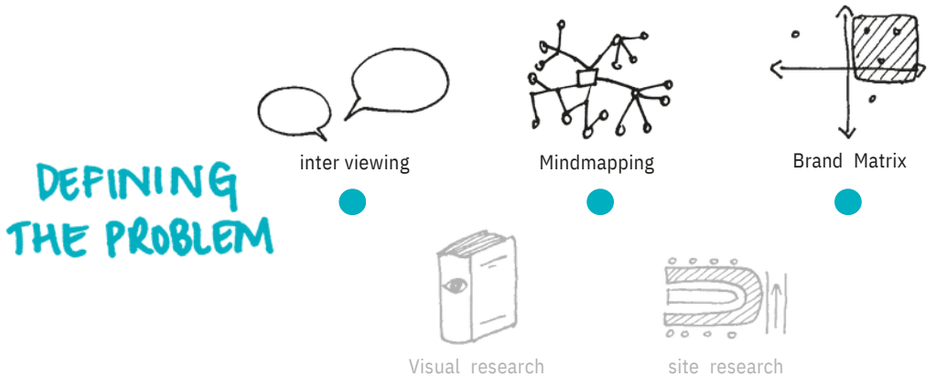
presents dozens of tasks that anyone can pursue as they embark on the non-linear path to problem-solving. Peter G. Rowe applied the term “design thinking” to architecture in 1987. More recently, Tom Kelley, Tim Brown, and their colleagues at the design firm IDEO have developed comprehensive techniques for framing problems and generating solutions, emphasizing design as a means for satisfying human needs. While some of these works look at design in the broadest sense,

our book hones in specifically on graphic design—as a medium and as a tool. Ideation techniques often involve capturing ideas visually: making sketches, compiling lists, diagramming relationships, and mapping webs of associations All these modes of inquiry are forms of graphic expression—a point made in Dan Roam’s excellent book The Back of the Napkin (2008). Designers of products and interfaces use narrative storyboards to explain how goods and services function.

In addition to including techniques for framing problems and generating ideas, this book also looks at form-making as an aspect of design thinking. Whereas some approaches to design thinking deemphasize the formal component of design, we see it as a crucial element of the creative process.

This book was authored, edited, and designed by students and faculty in the Graphic Design MFA program at Maryland Institute College of Art (MICA). Conceived expressly for this book, most of the projects were designed to test principles of design thinking in a studio/classroom environment. Each technique is thus accessible to students and small design firms. The research methods do not require high-tech equipment or advanced expertise in outside subject areas.

Graphic Design Thinking is the fifth in a series of books published by Princeton Architectural Press in direct collaboration with MICA. The act of writing and producing these books helps students and faculty expand their own knowledge of design while translating that knowledge into a form that communicates to other designers and creative people working around the world. Our classrooms are practical laboratories, and these books are the results of our research.—Ellen Lupton

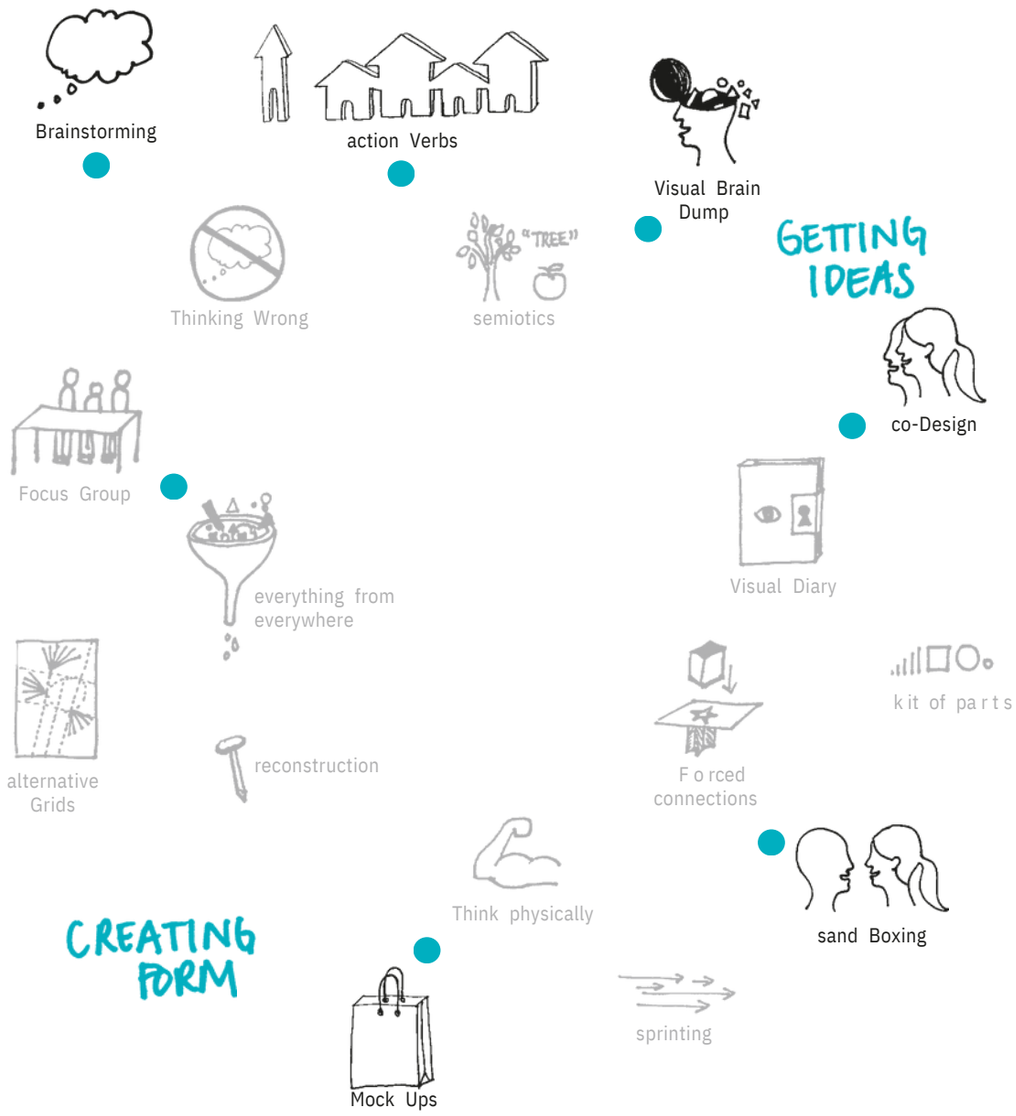


The Design Process

This chapter follows a real-world project through each phase of the design process, from researching the problem to generating ideas to creating form and implementing the results. Along the way, the design team employed various techniques of design thinking that are explored in more detail later in the book. The project documented here was conducted in the graphic design MFA studio at Maryland Institute College of Art. A team of designers, led by Jennifer Cole Phillips, worked with client Charlie Rubenstein in an effort to raise awareness of homelessness in the local community. Homelessness is a vast and multifaceted issue. The team worked together to create a tightly focused project that could be successfully realized with available resources.

In 2008, Baltimore City documented 3,419 homeless people living within its limits. The team built their campaign around the number "3419," signalling both the scale of the problem and the human specificity of the homeless population. Working with client, the design team conceived and implemented a project that aimed to educate middle school students about homelessness.
—Ann Liu

"T he design process, at its best, integrates the aspirations of art, science, and culture."
Jeff Smith



Defining the Problem

3419 Project

Interviewing. Designers talk to clients and other stakeholders to learn more about what people's perceived needs as a project begins. Shown here are highlighted excerpts from a videotaped conversation with Charlie Rubenstein, the chief organizer of the 3419 Homeless Awareness Campaign. See more on Interviewing, page XX.

If we are talking about 3419 as an organization, where do you see it five years from now?
Well, I want to redesign the way we treat homelessness in the city. I don't want to do it from a non-profit, third party level, I want to do it from the inside out.

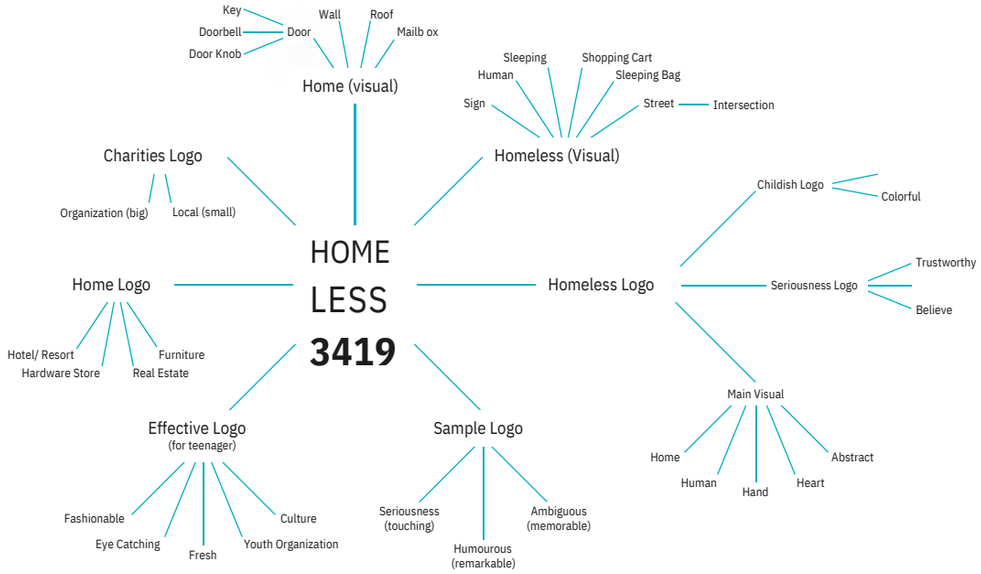
My biggest problem with Baltimore's homeless services, or whatever you want to call it, [pause] is that they don't go very deep. There isn't enough reach. [pause] For me, it isn't that they are doing it wrong, there just needs to be a new way to do it.
Can you give me a specific example of a new way?
Sure. There needs to be more qualitative research done. There are more quantitative studies around than you could read in a lifetime.... [pause] So, if you have a policy, its biggest problem is that it's singular and won't work for everybody. The biggest problem is that, even institutionally, we are treating people as numbers. We are treating people as a genre, that they are faceless, heartless. Like they are just 3419.

I want to create a people-based program. Because we are talking about people, and there are so many different kinds of them. So, what if we tried to understand who each of these people are? Where they came from and what their names are... I want to do a six-month qualitative research study were we actually go out and interview over 500 homeless people. And not just one time, but over a period of time. So we can understand who these people are.

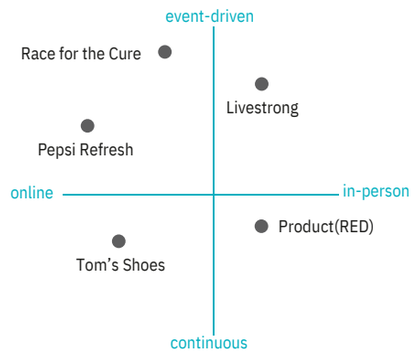
Paired with his body language, Charlie's comments showed that he was dissatisfied with the current state of homeless services but also recognized their value.

Charlie started talking here more quickly and with more animation in his tone and body language, indicating his passion for treating homeless people like real people instead of just a number.

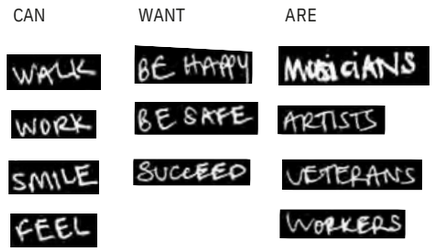
People often need time to get to the bottom line. After 45 minutes, we were finally able to hear the core of what the client was trying to achieve with the 3419 campaign.



Mind Mapping. Designers use associative diagrams to quickly organize possible directions for a project. Design: Christina Beard and Supisa Wattanasansanee. See more on Mind Mapping, page XX.

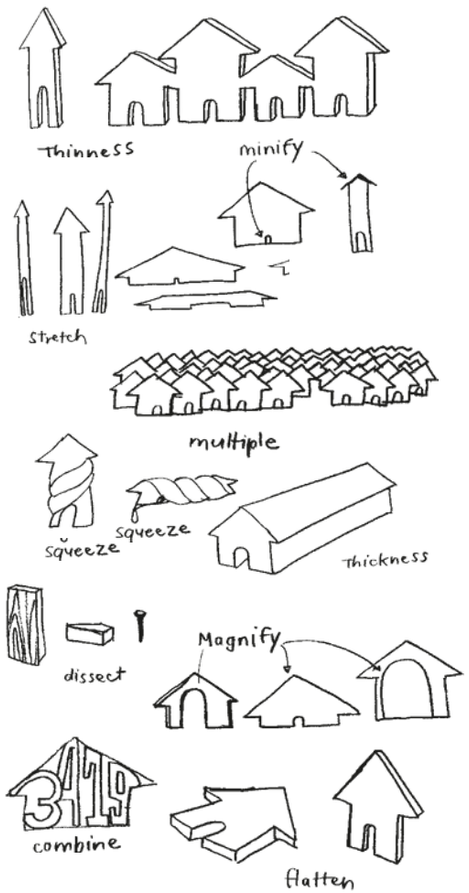


Brand Matrix. This diagram shows relationships among different social change campaigns. Some are events, while others take place continuously. Some happen online, others in person. See more on Brand Matrix, page XX.

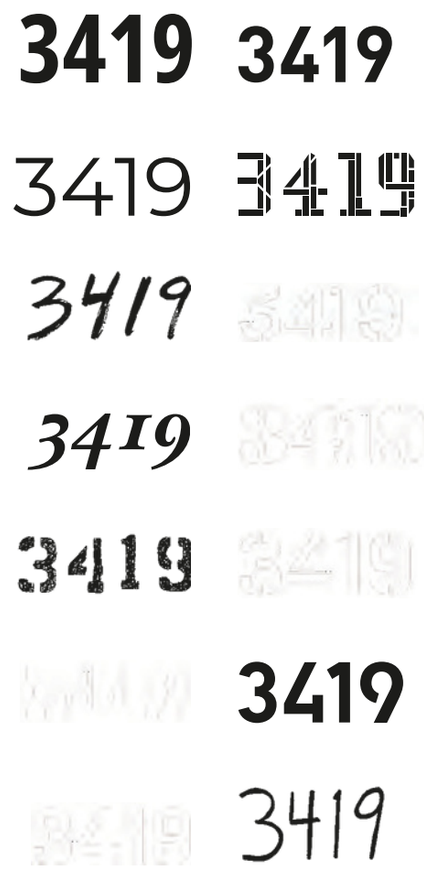


Brainstorming. By focusing the campaign on what homeless people have and not what they materially lack, designers chose CAN, WANT and ARE as the voice of the project. See more on Brainstorming, page XX.

Getting Ideas
3419 Project



Action Verbs. A fun way to quickly produce visual concepts is to apply action verbs to a basic idea. Starting with an iconic symbol of a house, the designer transformed the image with actions such as magnify, minify, stretch, flatten, and rearrange. Design: Supisa Wattanasansanee. See more on Action Verbs, page XX.



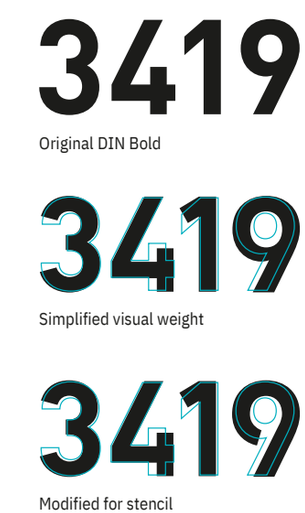
Visual Brain Dumping. Designers created various typographic treatments of “3419” and pooled them together in order to find the best form for the project. Design: Christina Beard, Chris McCampbell, Ryan Shelley, Wesley Stuckey. See more on Visual Brain Dumping, page XX.

Creating Form
3419 Project

Sandboxing. The stencil was shared with another design team to explore different ways that users could transform it. Design: Paige Rommel, Wednesday Trotto, Hannah Mack. See more on Sandboxing, page XX.

Lauren P. Adams

Mock Ups. Making visual mock-ups showing how concepts, like a pillowcase poster, could be applied in real life helps make it concrete for clients and stakeholders.



Ready for Reproduction. Having decided that a stencil would be part of the 3419 identity, the designer modified letters from the typeface DIN to create a custom mark that could function as a physical stencil. Design: Chris McCampbell.

John Smith

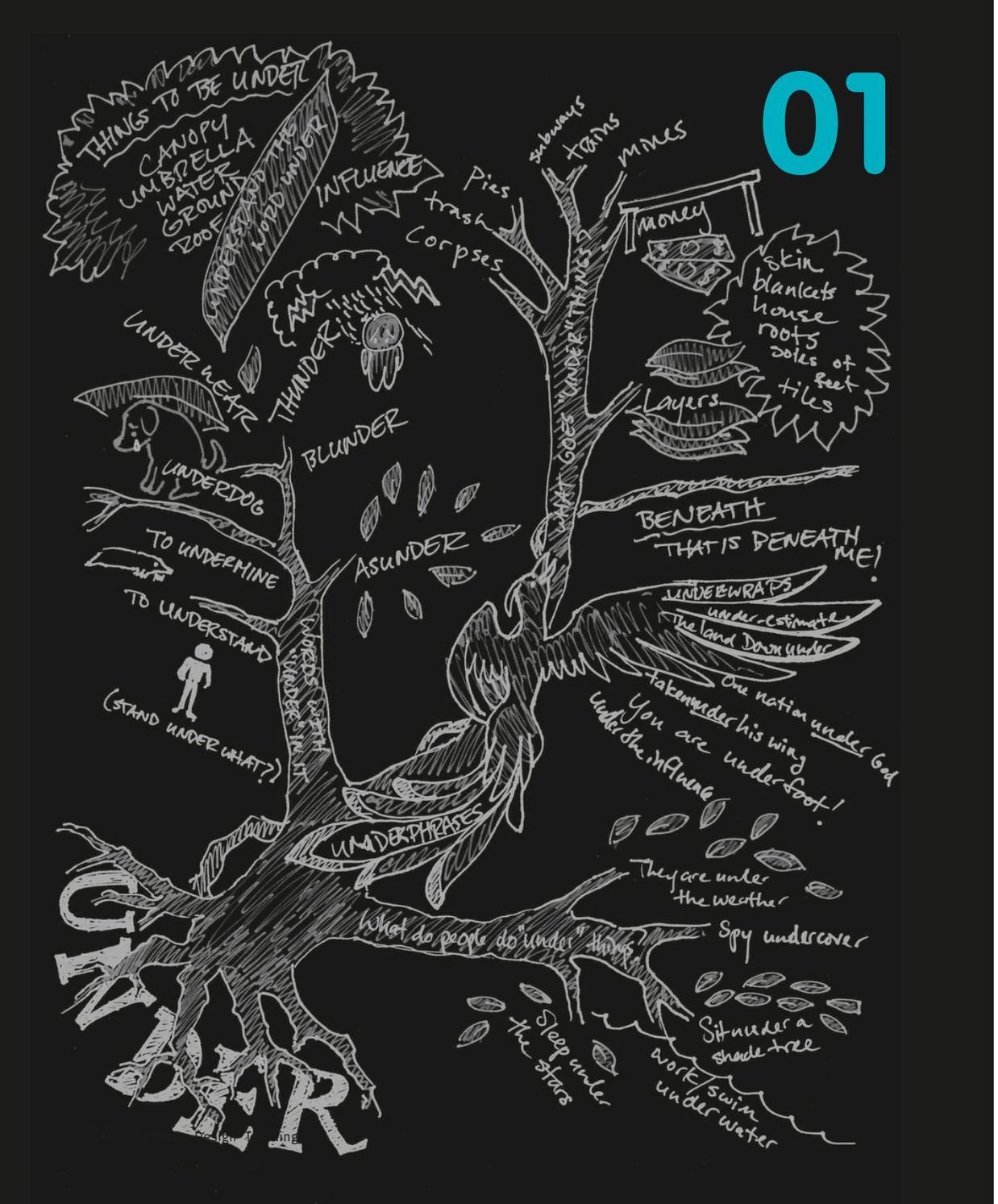
The Whole Kit and Kaboodle. Designers created a poster and worksheets for teaching kids about homelessness in Baltimore and what they can do to help. The kit also includes two stencils, two pillowcase, a bottle of paint, and a brush. The kit invites students to create their own pillowcase posters, engaging them actively in thinking about the problem and what it means to sleep without your own bed. Design: Ann Liu, Beth Taylor, Chris McCampbell, Krissi Xenakis, Lauren P. Adams.

The Cycle Continues

3419 Project

Design is an ongoing process. After a team develops a project, they implement, test, and revise it. For the 3419 homelessness awareness campaign, the end result of the initial design phase was the creation of a kit for use in middle schools. The kit allowed the project team to interact with their audience, while the users created their own visual contributions with the materials provided and thus expanded the project's language. The design process began all over again.

Co-Design. The 3419 design team did a short afternoon workshop with local middle school students in order to create pillowcases that would be used as posters to hang around their school and city. Co-design is a methodology that involves users in the creative process. See more on Co-Design, page XX.



How to Define Problems

Most design projects start with a problem, such as improving a product, creating a logo, or illustrating an idea. Designers and clients alike often think about problems too narrowly at the outset, limiting the success of the outcome by confining their view of the situation. A client who claims to need a new brochure may do better with a website, a promotional event, or a marketing plan. A designer who thinks the client needs a new logotype may find that a pictorial icon or a new name will work better for a global audience. A search for greener packaging might yield not just individual products but new systems for manufacturing and distribution.

At the beginning of the design process, ideas are cheap and plentiful, pumped out in abundance and tossed around with abandon. Later, when many ideas get narrowed down to those most likely to succeed, it will take time and money to visualize and test each one. Thus designers often begin with a period of playful, open-ended study. It's a process that includes writing lists as well as sketching images. It involves mapping familiar territory as well as charting the unknown.

This chapter looks at techniques designers use to define (and question) the problem in the early phases of the creative process. Some methods, such as brainstorming, help designers generate core concepts, while others, such as interviews, focus groups, and brand maps, seek to illuminate the problem by asking what users want or what has been done before. Many of these techniques, such as brainstorming, could take place at any phase of the process. Brainstorming is the first step in the process of many designers, and it is the mother of many other thinking tools, so we put it at the beginning.

Why are such techniques—whether casual or structured—necessary at all? Can't a creative person just sit down and be creative? Most thinking techniques involve externalizing ideas, setting them down in a form where they can be seen and compared, sorted and combined, ranked and shared. Thinking doesn't happen just inside the brain. It occurs as fleeting ideas become tangible things: words, sketches, prototypes, and proposals. More and more, thinking happens among groups working together towards common goals.

Alex F. Osborn introduced the technique of “brainstorming” in Applied Imagination: Principles and Procedures of Creative Thinking (New York: Scribner’s, 1957). First printing, 1953.

Brainstorming

What picture comes to your mind when you hear the word “brainstorm”? Many of us conjure a dark cloud crackling with lightning and raining down ideas. The original metaphor, however, was military, not meteorological. The term “brainstorming” was the brain child of Madison-Avenue ad man Alex F. Osborn, whose influential book Applied Imagination (1953) launched a revolution in showing people how to think creatively. “Brainstorming” meant attacking a problem from many directions at once, bombarding it with rapid-fire ideas in order to come up with viable solutions. Osborn believed that even the most stubborn problem would eventually surrender if zapped by enough thought rays—even random or silly ones. He also believed that even the most rigid, habit-bound people could become imaginative if put in the right situation.

“T he right idea is often the opposite of the obvious.”
Alex F. Osborn

Today, brainstorming is deployed everywhere from kindergarten classrooms to corporate boardrooms. John Bielenberg, founder of the social design organization Project M, has developed his own signature variation on brainstorming, called “Thinking Wrong.” Whereas standard brainstorming starts with a prompt that relates logically to the problem (such as “How can we bring together people in a community?”), a Thinking Wrong session begins with a seemingly oblique, even random prompt (such as “What skills do we have in our group?”). One Project M session led to the idea that baking pies could be a form of social action.

Techniques like brainstorming and Thinking Wrong are effective for defining problems and coming up with initial concepts at the start of a project. These processes can yield written lists as well as quick sketches and diagrams. They are a handy way to open up your mind and unleash the power of odd-ball ideas.—Jennifer Cole Phillips and Beth Taylor

How to Brainstorm with a Group

01 Appoint a moderator. Using a whiteboard, big pads of paper, or even a laptop, the moderator writes down any and all ideas. The moderator can group ideas into basic categories along the way. Although the moderator is the leader of the brainstorming process, he or she is not necessarily the team leader. Anyone with patience, energy, and a steady hand can do the job.

02 State the topic. Being specific makes for a more productive session. For example, the topic “New products for the kitchen” is vague, while “Problems people have in the kitchen” encourages participants to think about what they do each day and what they might have trouble with. Breaking the topic down even further (cooking, cleaning, storage) can further stimulate discussion.

03 Write down everything, even the dumb stuff. Everybody in the group should feel free to put out ideas, without censorship. Unexpected ideas often seem silly at first glance. Be sure to record all the boring, familiar ideas, too, as these help clear the mind for new thinking. Combine simple concepts to create richer ones.

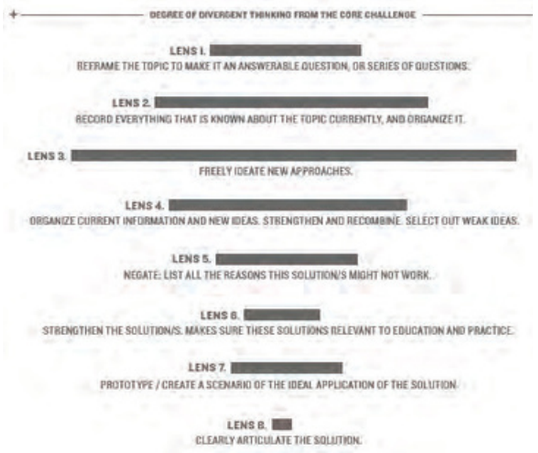
04 Establish a time limit. People tend to be more productive (and less suspicious of the process) if they know it won’t drag on forever. In addition to setting a time limit, you can also aim for a quantity, such as “one hundred new ways to think about hats.” Goals spur people on.

05 Follow up. Rank ideas at the end of the session or assign action steps to members of the group. Ask someone to record the results and share them as needed. The results of many brainstorming sessions end up getting forgotten after the thrill of the meeting.

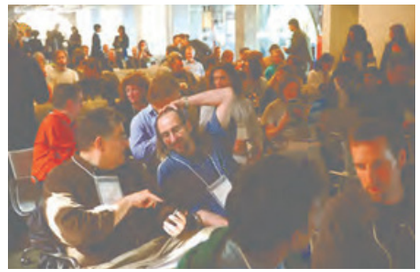
Case Study
Designers Accord Summit

In the fall of 2009, The Designers Accord brought together one hundred global thought leaders for two days of highly participatory brainstorming, planning, and action around the topic of design education and sustainability. Valerie Casey, architect of the Summit and founder of The Designers Accord, structured the event like a layercake of short, small-group work sessions interspersed with lively speakers and opportunities for quality social time, which helped prevent burnout and maximize productivity.

The participants worked in eight groups, and each group tackled the core challenge of the Summit through a different separate lens. Groups rotated through the topics, allowing participants to refresh their perspectives and add to the collective wisdom of a larger collective. An efficient team of moderators and student assistants—plentifully equipped with Sharpies, post-its, and whiteboards—kept conversations brisk, and captured the content.

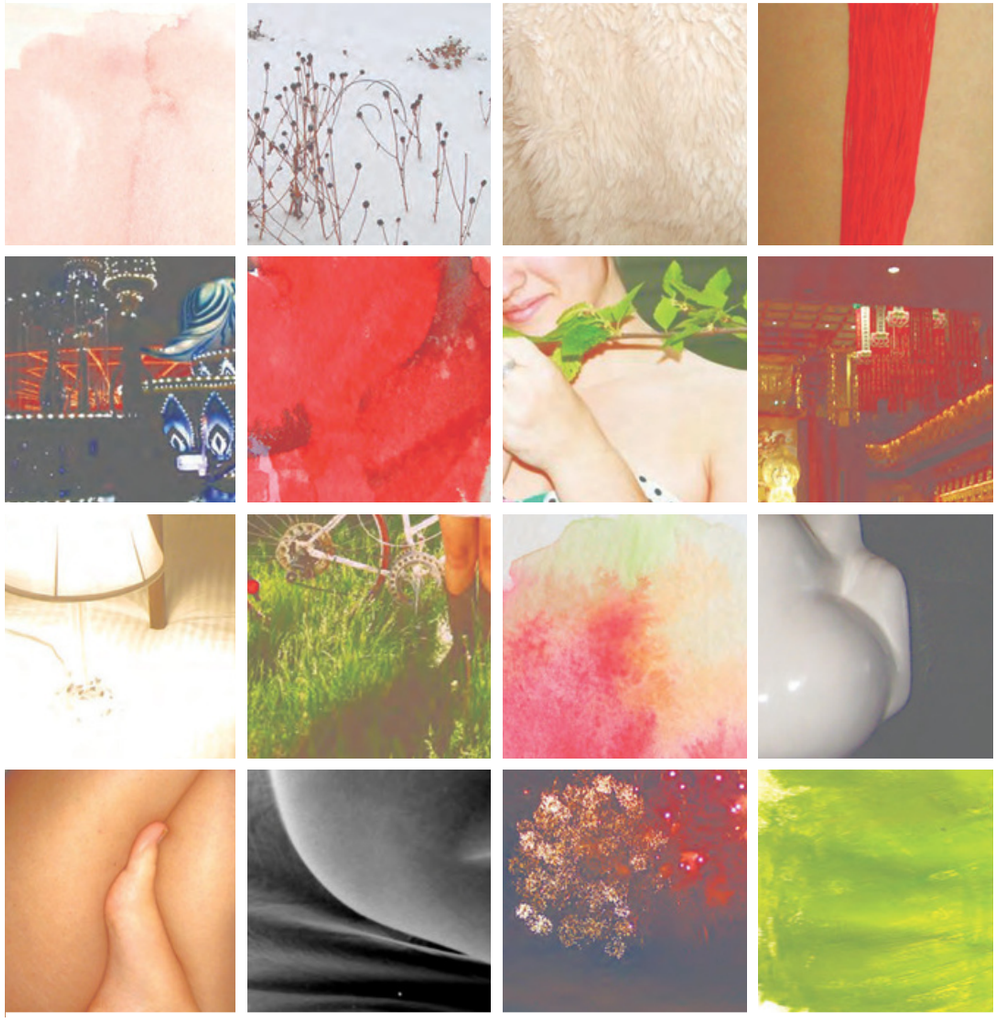


Through the Lens. A system of lenses for viewing the subject of sustainability and design education allowed for varying amounts of freedom and constraint. Diagram: Valerie Casey.



Give Me a Break. Intense work sessions were interwoven with inspiring lectures and impromptu social gatherings. Photo: Christian Ericksen.

Capturing thought. Moderators and student assistants worked to cultivate, capture, and cull ideas using every surface available: floors, walls, windows, and white boards. Photos: Christian Ericksen



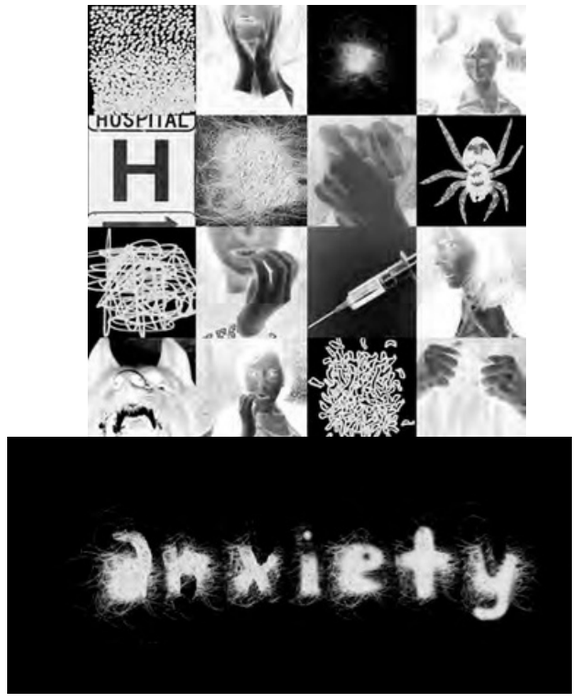
Seductive. Soft, silky, sparkling, hot, red, concealed, and revealed, this database of images mines the senses.
Design: Heda Hokshirr

Anxious. Itchy, rushed, self-absorbed, solicitous and spooked, this study digs deep beneath the surface.
Design: Katy Mitchell

Typographers use visual brainstorming to create a database of conceptual and visual swatches in search of fresh solutions.

Case Study
Psychological States

In addition to sketching with pen and paper, designers collect images to build databases of reference points. Beginning typography students were asked to create a wordmark describing a psychological state. Instead of word lists or thumbnail sketches, designers compiled databases of images capturing the tenor of their subject. They looked for images drawn from their own personal associations with their word. Just as verbal brainstorming requires moving beyond the obvious to get to fresh ground, visual brainstorming urges participants to find deeper or less obvious responses and associations. The wordmark solutions a natural outgrowths of this visual search.



Designers learn how to use simple images to convey complex ideas.

Case Study

New York Times Op Ed Illustration

A group of design students were asked to create illustrations for the “Letters to the Editor” opinion page of The New York Times. The subject matter: how Americans across diverse income brackets, both rich and poor, are able to purchase high-status consumer goods. The deadline: four hours from start to finish. A group brainstorming session got everyone thinking about clear, simple images that quickly convey ideas about shopping, wealth, and status. The moderator established three categories at the outset for sorting ideas as they came in. Although all the designers went on to create their own illustrations, they worked from a common list of simple concepts. Their task was to synthesize this open-ended vocabulary into surprising combinations.

This list of basic ideas served as a reservoir from which each designer could interpret the topic. Several solutions combine two or more items from the list (such as a shopping cart loaded with appliances, or a receipt listing major purchases and basic needs).

Stuff People Buy	Markers of Status	Images of Shopping
Cars	House	Bags
Jewelry	income	Credit cards
Purses	Corporate ladder	Ebay
Electronics	Reserved parking	Cash registers
Real estate	Exclusive Artwork	Coupons
Food and water	Marriage Family	Dressing rooms
Gas	heritage Caviar	Purse/wallet
Clothes	Cigars Cuff links	Receipts
Starbucks	Shoes Branding	Changing hands
Education	Social status Money	Price tags
Leisure activities	Wine Suits Ties	Sale
Entertainment	First class flights	Traveling to store/mall
Club memberships		Parking
Gadgets		Escalators
Health and beauty		Carts
Vacations		Angry small children
Services		Long lines
Liposuction		Frustration

Julia Kostreva

Christina Ricks

Cara Lichtenstein

Ally Stoneham

Alex Roulette

Yu Chen Zhang

"T hinking Wrong is about breaking our own conventions or orthodoxies to generate as many solutions as possible, even if they seem 'wrong.'"
John Bielenberg

Case Study
PieLab

Designer John Bielenberg calls his unique design process "Thinking Wrong." Using brainstorming and free association as jumping-off points, Bielenberg gets clients and design teams to hold a "Blitz" at the start of a project. In a Thinking Wrong Blitz, participants leave their assumptions at the door and generate as many ideas as possible. At the end of the Blitz, wayward associations and seemingly random contributions often become the core of the design solution.

Bielenberg is founder of Project M, an organization that inspires emerging designers to instigate social change. During a 2009 Project M session in Maine, the group found themselves halfway through their stay with no determined direction. To shake up the thinking process, Bielenberg asked the group about their respective talents. One participant was good at baking pies, leading the team to wonder if homemade pies could become the center of a social action. The result was a forty-eight-hour public event called Free Pie. The project morphed into a pop-up shop called PieLab in Greensboro, Alabama, before becoming a permanent storefront there. Free Pie and PieLab are about more than baking. They bring people in the local community together to talk and share. As Bielenberg puts it, "Conversations lead to ideas, ideas to projects, and projects to positive change."

Recipe Invites. Design: Megan Deal, Ryan LeCluyse, Haik Avanian, Amanda Buck, Archie Lee Coates IV, Jeff Franklin, Dan Gavin, Breanne Kostyk, Brian W. Jones, Robin Mooty, Adam Saynuk, Alex Pines, Breanne Kostyk, Emily Jackson, Hannah Henry, James Harr, Melissa Cullens, Reena Karia, Rosanna Dixon, HERO staff and volunteers. Photo: Dan Gavin.

Come Together. Musicians from Sewanee University visit PieLab on opening day. Photo: Brian W. Jones.

Case Study
HERO

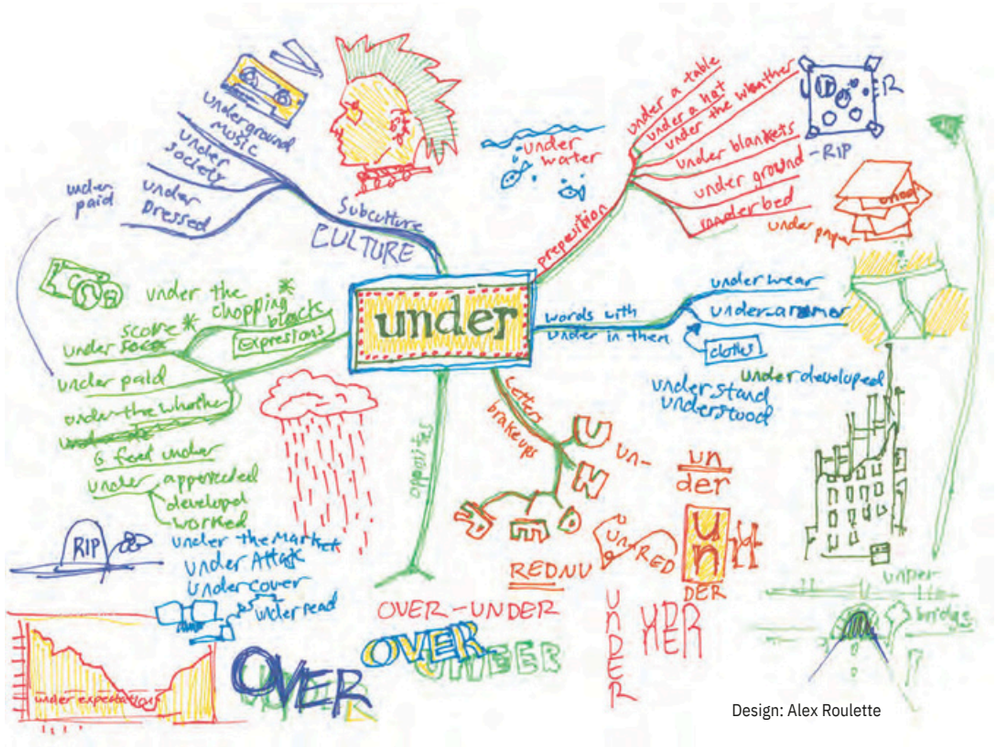
HERO was funded by a grant given to Piece Studio and the Center for Design Practice at Maine College of Art by Sappi's Ideas that Matter program.

The Hale Empowerment and Revitalization Organization (HERO) works in Hale County, Alabama, to assist residents with securing housing and building community. A group of students from the Center for Design Practice at Maryland Institute College of Art went to Alabama for a five-day session with Project M. After three days of exploring and absorbing the local community, the group held a two-day Thinking Wrong Blitz. The visual language they used in the Thinking Wrong session ended up driving the final project. Their last night in Alabama the group stenciled posters that they then plastered around Greensboro, introducing the idea to the town. Later, the team created an information kit for potential donors and a series of postcards to encourage community involvement.

HERO Promotional Materials. HERO uses these cards to educate and feature profiles of community members and how they have utilized HERO's resources. They're also used for fundraising and reaching out to volunteers. Design: Luke Williams, Alex Pines, Hayley Griffin, Bryan McDonough. Copywriting: Elizabeth Evitts-Dickinson. Art Direction: Bernard Caniffe, Mike Weikert, Ryan Clifford. Photo: Christina Beard.

Poster Kickoff CDP students finished their Blitz by creating a series of posters the night before they left Hale County, which they stenciled with their newfound visual language. They hung them around the town that night. Photo: Bryan McDonough.

You = Home. The original sketches from the Thinking Wrong brainstorming session were never meant to be the final visual language for the project, but ended up as such anyway. Photo: Mike Weikert.



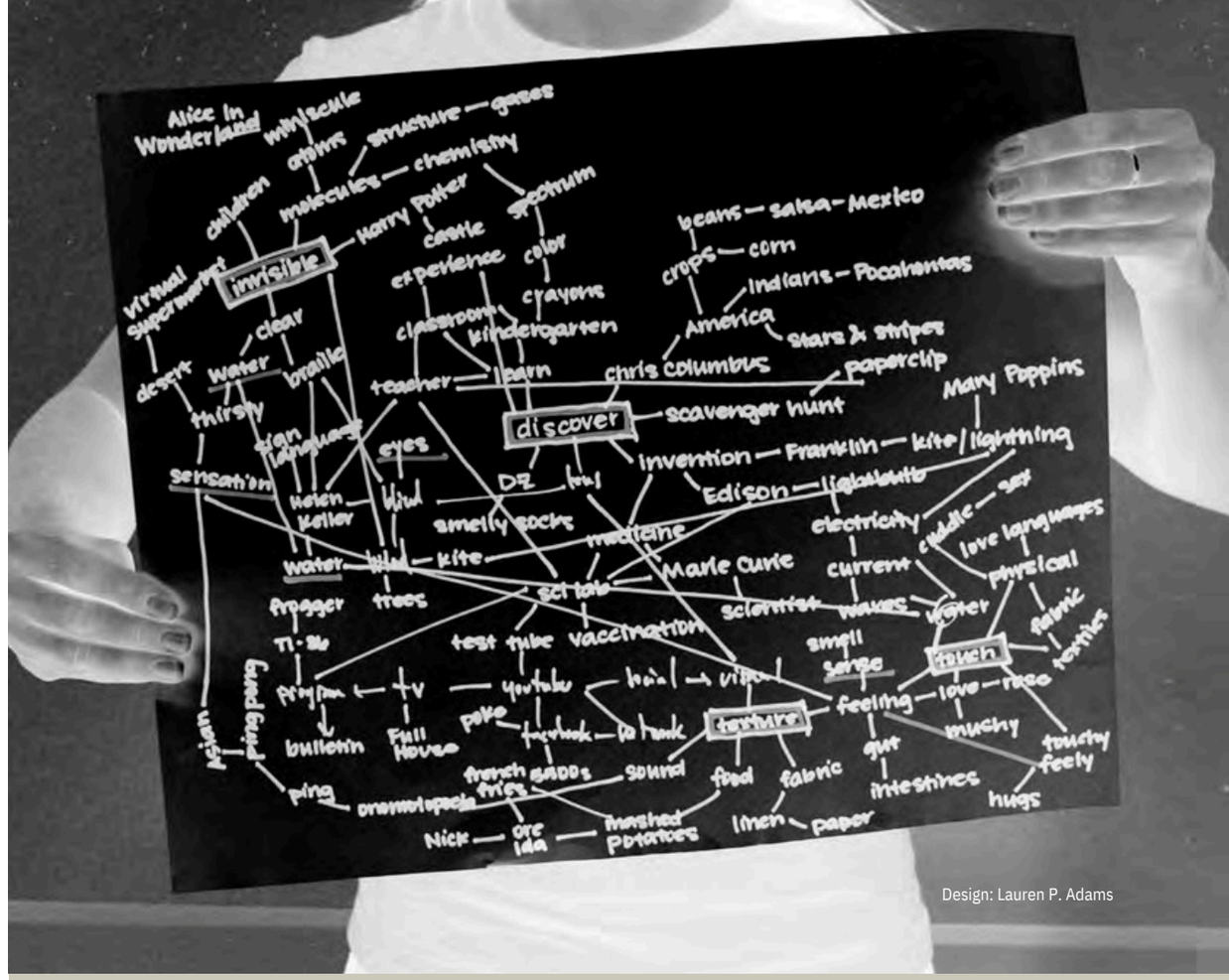
Design: Alex Roulette

Mind Mapping

Also called “radiant thinking,” mind mapping is a form of mental research that allows designers to quickly explore the scope of a given problem, topic, or subject area. Mind mapping can help you expand the scope of a problem and look at it from diverse angles.

Mind mapping was developed by Tony Buzan, a popular psychology author who has promoted his method through publications and workshops. Although Buzan delineated specific rules for mindmapping, such as using a different color for each branch of the diagram, his method is employed more loosely and intuitively by countless designers, writers, and educators. Ferran Mitjans and Oriol Armengou of Toormix, a design firm in Barcelona, called the technique “a cloud of ideas.”—Krissi Xenakis

On the theory of mind mapping, see Tony Buzan and Barry Buzan, The Mind Map Book: How to Use Radiant Thinking to Maximize Your Brain’s Untapped Potential (Plume, 1996).



Design: Lauren P. Adams

How to Make a Mind Map

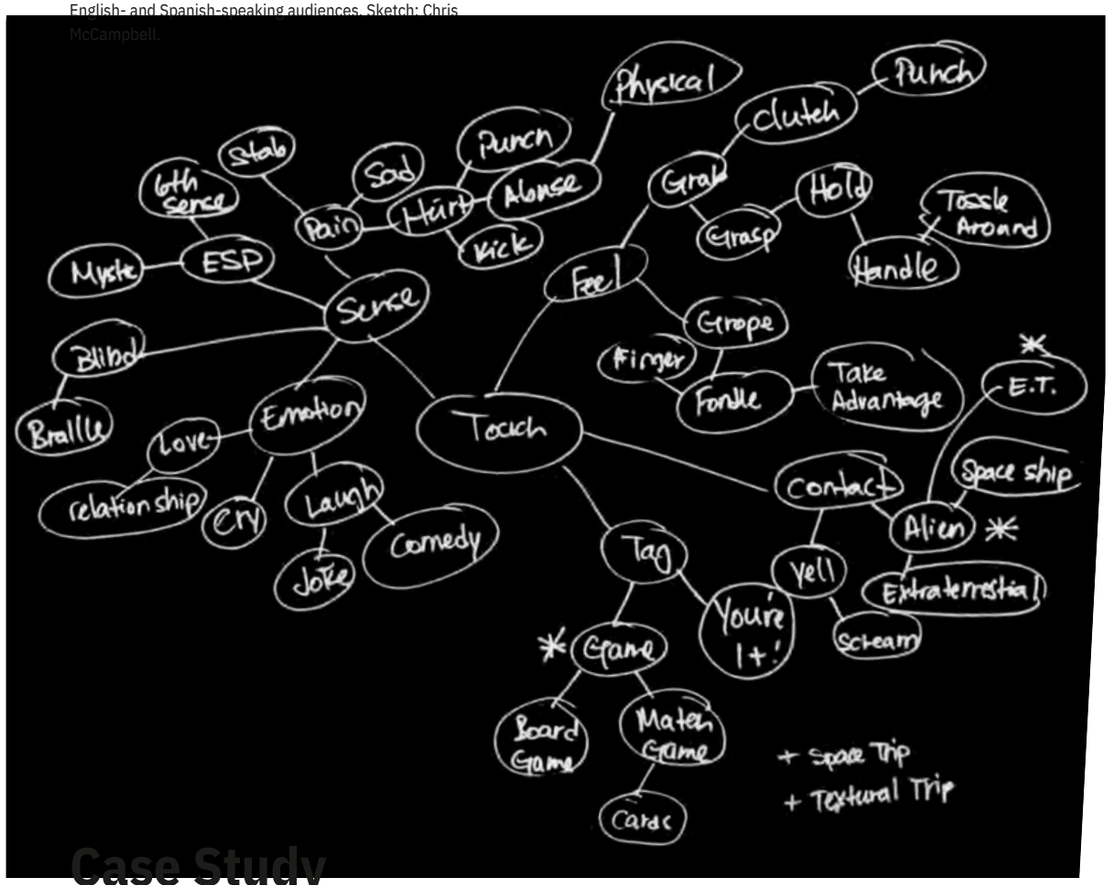
01 Focus. Place one element at the center of the page.

02 Branch out. Create a web of associations around the core phrase or image. If you like, use simple pictures as well as words.

03 Organize. The main branches can represent larger categories such as synonyms, antonyms, homonyms, related compound words, clichés and stock phrases, and so on. Try using a different color for each branch you develop.

04 Subdivide. Each main branch can feed smaller categories. Work quickly, using the process to free up your mind. For example, the idea of “invention” can take you from the names of inventors to processes and feelings.

Cloud of Ideas. After mind mapping, the design team chose the name “Texturactiv” for a museum aimed at English- and Spanish-speaking audiences. Sketch: Chris McCampbell.



Case Study
Texturactiv Identity

During a two-day branding workshop, designers from the Barcelona-based studio Toormix encouraged a team of designers to use mind mapping to develop a concept and naming system for a museum of textures. The duo pushed the designers to keep searching for surprises.

Tips from Toormix
Continue writing related words, synonyms and ideas.
Don’t be rational, just write.
Don’t rule out the silly ideas.
Write stupid and funny things, too.
Work fast, without discernment.
Be notorious.

Image Solution. This concept incorporates photographs of real-world textures. The designer used geometric forms to symbolize a jungle gym and used the letter forms to frame an image of grass. Design: Beth Taylor.

Expressing Touch through Sight. This solution draws on the words “invisible” and “waves,” concepts uncovered in the mind-mapping process. The stripes-on-stripes pattern undulates in and out of visibility, creating a visual texture. Design: Lauren P. Adams.

Patterning. Many trails in the designer’s mapping session led to the word “pattern.” She created a simple patterned background for the logotype. Elements of the pattern move in front of the lettering, generating a sense of depth. Design: Krissi Xenakis.

On ethnography as a design method, see Ian Noble and Russell Bestley, Visual Research: An Introduction to Research Methodologies in Graphic Design (AVA Publishing, 2004) and Dev Patnaik, Wired to Care: How Companies Prosper When They Create Widespread Empathy (FT Press, 2009).

Interviewing

Ethnography is the practice of gathering data through observations, interviews, and questionnaires. The goal of ethnographic research is to experience first-hand the lives of those being studied. People aren't always good at verbally articulating what they want, but they can show it in their body language, their personal surroundings, and other subtle cues.

"W hat people say, what people do, and what they say they do are entirely different things."
Margaret Mead

Field research involves going out into the participants' environment, observing them, asking them questions, and getting to know their concerns and passions. One-on-one interviewing is a basic form of field research. Taking part in direct observations and conversations helps connect designers to participants' behaviors and beliefs. Graphic designers can learn to use basic ethnographic field research techniques to observe behavior patterns in an open and non-obtrusive way. This kind of research is especially useful when designing for unfamiliar audiences.

By applying a few key principles, the designer can lead an interview that yields valuable content and observations. Interviewing participants face-to-face, rather than via phone or email, allows the researcher to read body language and mood. By experiencing the same environment as the participant, the designer can begin to tease out new insights and gain empathy for the audience or user.

While the application of ethnographic research to graphic design is a relatively new idea, the basic principle of knowing who you are communicating with is a trademark of good design.—Ann Liu

One-on-One. The designer interviews the client to determine the scope of a branding project.

How to Conduct an Interview

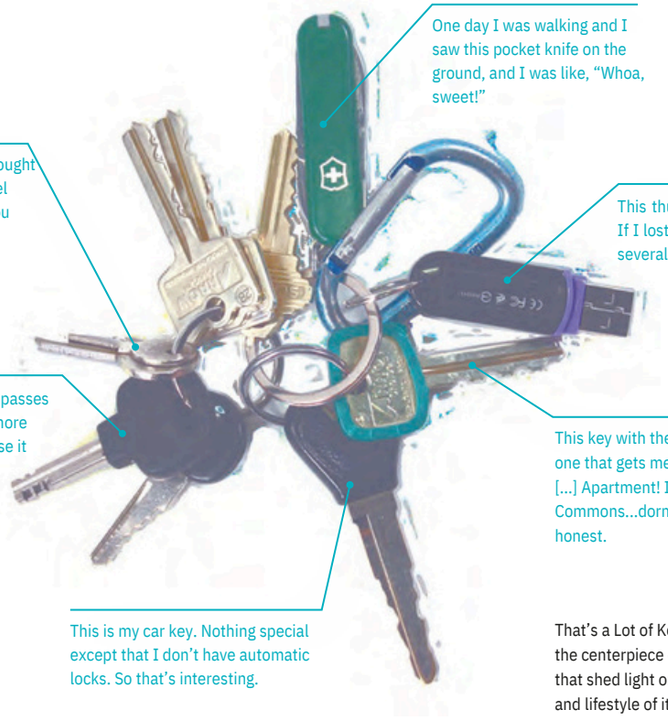
01 Find the right people.
Interview the people you'll be designing for. When you look for participants, look for the extreme users. If you're looking to design a productivity tool, you'll want to seek out highly organized participants as well as participants who have never made a to-do list in their life. Both will be able to provide enlightening field research and give you clear, opinionated answers.

02 Prepare, prepare, prepare.
Set up a video camera on a tripod if you'll be doing a sit-down interview. Make sure you have enough tape to cover the whole interview, and test your microphone ahead of time. Keep a notebook and pen handy to write notes for reference later.

03 What the heck? Look for moments when people are doing things differently from what they say they are doing. For example, if someone says they only keep the bare minimum of papers on their desk and you see overflowing stacks of files, you'll want to document that disconnect in your notes. It's these weird "what the heck" moments that allow you to see how everyday people think.

04 Be open. Be curious and look beyond the obvious. Coming into an interview with strong opinions won't allow you to see what your participants are trying to explain to you (or hoping to conceal). Try to step into the participants' shoes and understand why they're doing what you see them doing.

05 Silence is okay. Don't fill in the blanks. When your participant is pausing, he or she is thinking hard for the right word. Don't jump and try to answer the question yourself. Patience can lead you to a great nugget of insight.



One day I was walking and I saw this pocket knife on the ground, and I was like, "Whoa, sweet!"

It's a really cute key. I bought it in Costa Rica at a hostel when they were like, "You need to have a lock.".

This thumb drive is my life. If I lost that, I would cry for several days.

This is the bike lock that passes in Iowa City and is way more convenient, but I can't use it here in Baltimore.

This key with the teal marker is the one that gets me into my house [...] Apartment! I mean apartment... Commons...dorm room—let's be honest.

This is my car key. Nothing special except that I don't have automatic locks. So that's interesting.

That's a Lot of Keys. A keychain is the centerpiece of multiple stories that shed light on the personality and lifestyle of its owner. Interview subject: Lauren P. Adams.

Case Study
Key Interviews

The key is built into the everyday language of our lives. Kept close on a key chain and entrusted to loved ones, the key is iconic, utilitarian, and essential. Alas, it's become so familiar that people have forgotten its true worth. This interview is part of a design research project studying the significance of keys as a designed artifact. Designer Ann Liu photographically documented each set of keys and identified points of interest through face-to-face interviews. She aimed to discover how the personality of a person emerges from a description of his or her keys. The interviews helped Liu ask bigger questions about whether keys could become more significant and expressive objects.

"M any a treasure besides Ali Baba's is unlocked with a verbal key."
Henry Van Dyke

Reporting from the Field.
This is an excerpt from a short interview with a participant in her living space talking about each of her keys.

Please tell me about each of your keys, and we'll follow through as needed.
Sure. This key with the teal markers is the one that gets me into my house.

Here?
Apartment! Apartment...Commons...dorm room...let's be honest! [laughter] Which is why it has the teal ring on it because it's important. These are the two keys to the office where I work part-time. I can never tell them apart, and I haven't bothered to memorize the numbers.

Every time I try and get into one of the offices, I have to use both. I could try and learn it and it would be so much easier, but...I don't spend the time. Or brainpower. What does this one go to? [pause]. This is another office key. [whispers to self] Where does it go to? I don't even know...

The oldest thing on my keychain are all the key rings.
They're all from the first time I ever had a keychain. I keep really good track of them because I really want key rings that are loose so I can get the keys on and off. This one came with a keychain thing from high school. It was the ticket to my freshman-year high school sweetheart dance. The key ring was connected to some metal keychain thing that said, "A Night to Remember" or whatever. I threw that part away a long time ago; it had rhinestones in it! But, this is a good key ring, and it's not too tight and it's really big, and flat. So, I kept it.

Lauren, the interview subject, referred to her home as a house. The interviewer was confused about whether Lauren was referring to her house in her hometown or here on campus. A clarifying question quickly prompted Lauren to reiterate that she was now living in a dorm room. Her body language indicated that she felt slightly embarrassed that she had called her room a house.

Lauren asked herself a question out loud and paused to think. The interviewer sat quietly and let her look for the answer herself. Lauren ended up questioning herself and thinking out loud before finally giving up. These keys (or the place they represent) may not be so important to her.

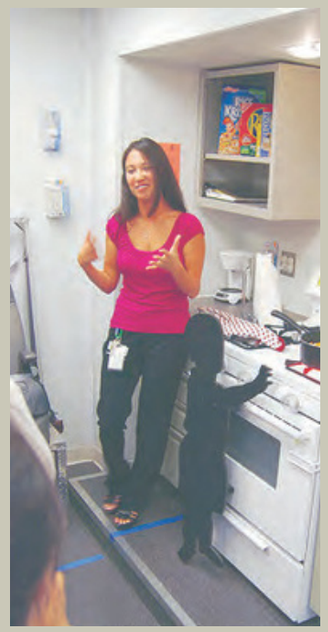
After the "official" interview had ended, Lauren continued to share snippets about her keys. The logic and sentimental origins of her key rings would have been lost if the recording had stopped at the end of the interview. Keep it rolling!

Focus Groups

Hocus Pocus
Focus, group.

The easiest ways to test the effectiveness of a design is to ask people what they think about it. A focus group is an organized conversation among a sample of individuals. Some designers avoid focus groups because they have seen clients use them to kill an idea before it even has a chance. If the questions are leading or if a few participants dominate the discussion and steer the opinion of the group, the results can damage the research and design process. However, a focus group can yield helpful information if it is conducted carefully and interpreted with a degree of skepticism. Neither client nor designer should view the results as scientific evidence. Focus groups can be used to help plan a project and define its goals as well as to evaluate results.

In addition to planned focus groups, spontaneous discussions with audiences can yield valuable insights. Often the most helpful feedback comes from a casual conversation that starts with the question, "So, what do you think of this?"—Lauren P. Adams and Chris McCampbell



How to Conduct a Focus Group

01 Plan your questions.
What do you want to know? Plan to ask four or five questions in a two-hour session. Keep questions open-ended and neutral. Instead of asking "Did you like the exhibition?" ask "What do you remember from the exhibition?"

02 Assign a moderator
and assistant moderator. The moderator leads the discussion and takes basic notes; the assistant moderator takes comprehensive notes and makes sure the audio recording equipment is working before and during the event.

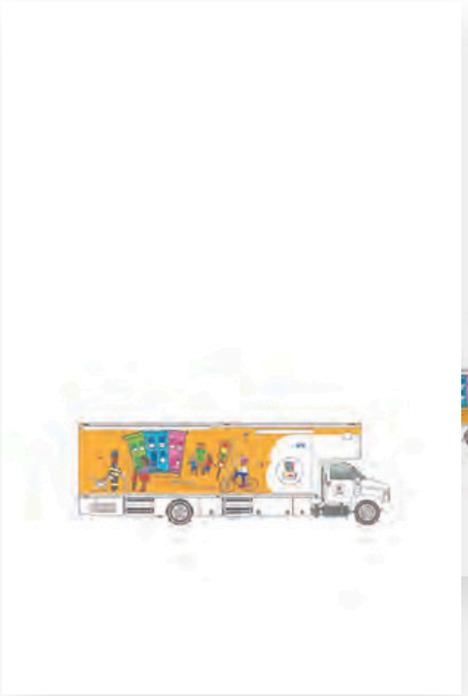
03 Create a comfortable environment. Provide refreshments. Arrange participants in a circle. Keep to your time limit (no more than two hours).

03 Be open-minded. Don't
lead the conversation towards a predetermined conclusion. If one participant is trying to convince other people to share his or her viewpoint, try to shift the direction of the conversation. Ask "Does anyone see it differently?"

04 Empower your participants.
Tell your group that they are the experts. Explain that you are there to learn about their opinions, experiences, and reactions.

05 Be supportive but neutral.
Say "Tell me more about that..." or "Can you explain what you mean?" or "Would you give me an example?"

06 Ask one question at a time.
During the conversation, repeat key phrases from your question to keep the conversation focused. Don't rush. Allow brief periods of silence while participants gather their thoughts.



What's Inside? The research team asked focus group participants what they thought of the van's exterior. Participants reported that they wanted to know what to expect inside the van before entering. In response to this information, the designers created posters to place outside the mobile safety center on sandwich boards. The posters explain in straightforward language that visitors will learn about home safety when they go inside the van. Design: Andy Mangold. Design Team: Lauren P. Adams, Mimi Cheng, Vanessa Garcia, Andy Mangold, Becky Slogeris.

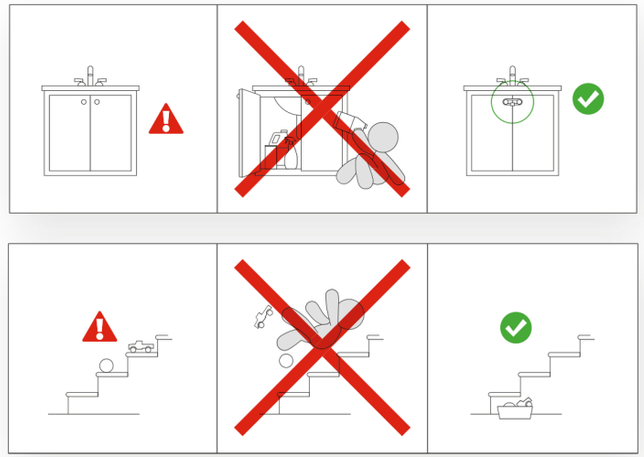
Case Study

CARES Mobile Safety Center

The CARES Mobile Safety Center, created by Johns Hopkins Bloomberg School of Public Health, is a van that travels to community events and schools in Baltimore. It teaches children and their parents about injury prevention in the home. Some visitors reported feeling confused and overwhelmed by the interior of the van and by the printed brochures. A team of graphic designers worked with MICA's Center for Design Practice to create a more cohesive visual language and to create materials that are accessible to both English and Spanish-speaking families. To inform the outcome of the new designs, the John Hopkins Bloomberg School of Public Health's Center for Injury and Research held focus groups with English- and Spanish-speaking parents.

Rowhouse Relevance. The focus groups explained that they wanted to see how the injury risks and safety checks shown in the exhibition relate to conditions in their own homes. In response, the design team created cross-sectional diagrams of a typical local rowhouse. Each numbered call out relates to a lesson taught on the CARES Mobile Safety Center. Design: Mimi Cheng.

Icon System. To unify the visual language of the CARES Mobile Safety Center, the design team created a set of icons to indicate the injury risks and safety measures. Both focus groups (English- and Spanish-speaking) responded well to the icons, interpreting the meaning of the colors and forms correctly and consistently. Design: Andy Mangold.



Safety Check Diagrams. The design team used the icons in a series of triptych diagrams to help the audience remember lessons taught on the van. The nonverbal diagrams speak equally to both English- and Spanish-speaking audiences. Design: Andy Mangold.

Case Study

Baltimarket

A team of designers from MICA's Center for Design Practice worked with the Baltimore City Health Department to address the problem of food access in the city. A "food desert" is an urban area that lacks convenient access to fresh food via a market or grocery store. The Virtual Supermarket initiative helps to combat this problem. The pilot project allows neighborhood residents to order groceries online during ordering sessions at a local public library. The supermarket delivers the groceries to the library the following day for no fee to the customers. The program provides people with convenient, varied food choices at standard supermarket prices.

The designers' task was to create advertising collateral to promote and explain the program to area residents. But what was the best way to illustrate this unfamiliar service and complex issue? What imagery should be used? What language would be most clear? The design team created a poster and talked to program participants about it when they came to the library. These were casual conversations rather than formal focus groups. The designers listened closely to what they heard—completely revised their approach.

Baltimarket
Virtual Supermarket

Bus Advertising. Most community members reported riding the bus to get to the grocery store, so bus advertising became a primary medium. Design: Lauren P. Adams.

Logo Development. The designers talked to community members about possible names for the virtual supermarket program. Many people liked "Baltimarket" it is community-specific. The subtitle can swap out for a specific neighborhood, making the program hyperlocal. Design: Lauren P. Adams.

Insulated Grocery Bags. Many customers complained that their frozen foods melted on the walk home from the library in the Baltimore summer heat. In response, the designers printed insulated reusable grocery bags as a customer incentive. Design: Lauren P. Adams.

Ordering groceries at a library is not a familiar activity. The text focuses on a simple action.

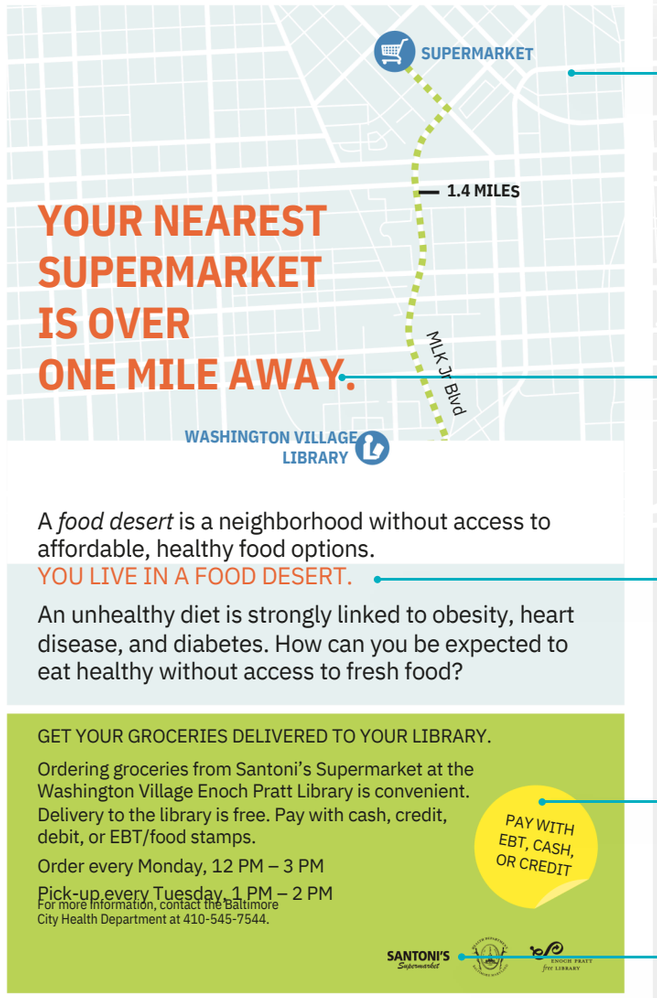
The design team opted for simple, straightforward language, believing that users were more likely to read a short poster than a detailed explanation.

The designers used colorful images of food and a brown bag to convey the idea of grocery shopping.

The designers directly addressed Baltimore residents.

The designers left this section blank to allowing the posters to be used at different times and locations.

Virtual Supermarket, First Try. Before Baltimarket even had a name, the initial poster for the Virtual Supermarket program focused on fresh food and the simple action of shopping. The designers didn't explain how the process works, because they didn't know how people would respond to the computer component of the program. Design: Lauren P. Adams and Chris McCampbell.



People were confused about the food imagery on the previous flyer. They thought our initiative was about nutrition or farmers markets. A map of the neighborhood makes the issue more personal to the target audience.

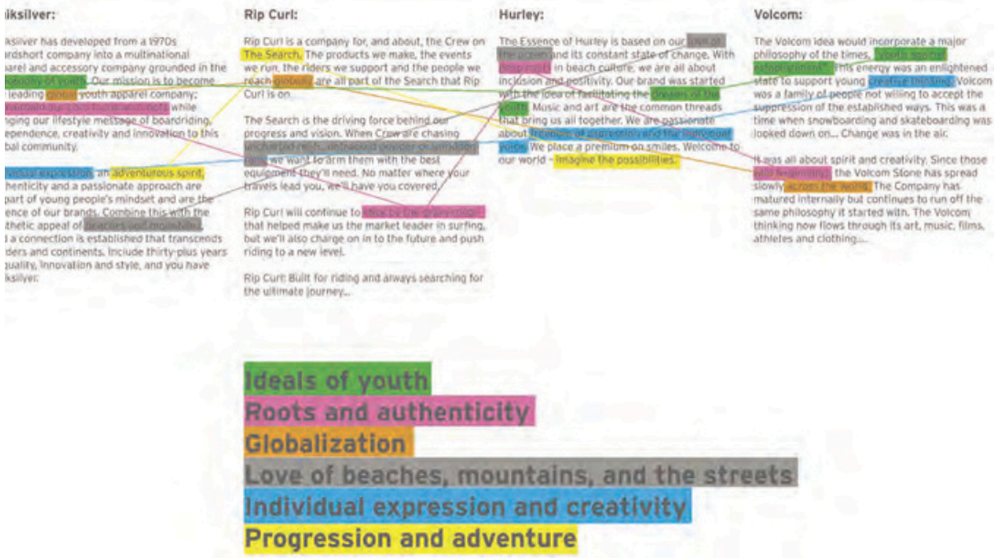
The primary message of the campaign shifted when the design team realized people were unaware of the underlying problem.

Using actual terminology empowers the audience to talk about the situation.

Because people were excited when they learned they could pay with food stamps, among other ways, the designers made this information more prominent.

The designers got positive feedback about the participation of the local grocery store, so they enlarged the logos.

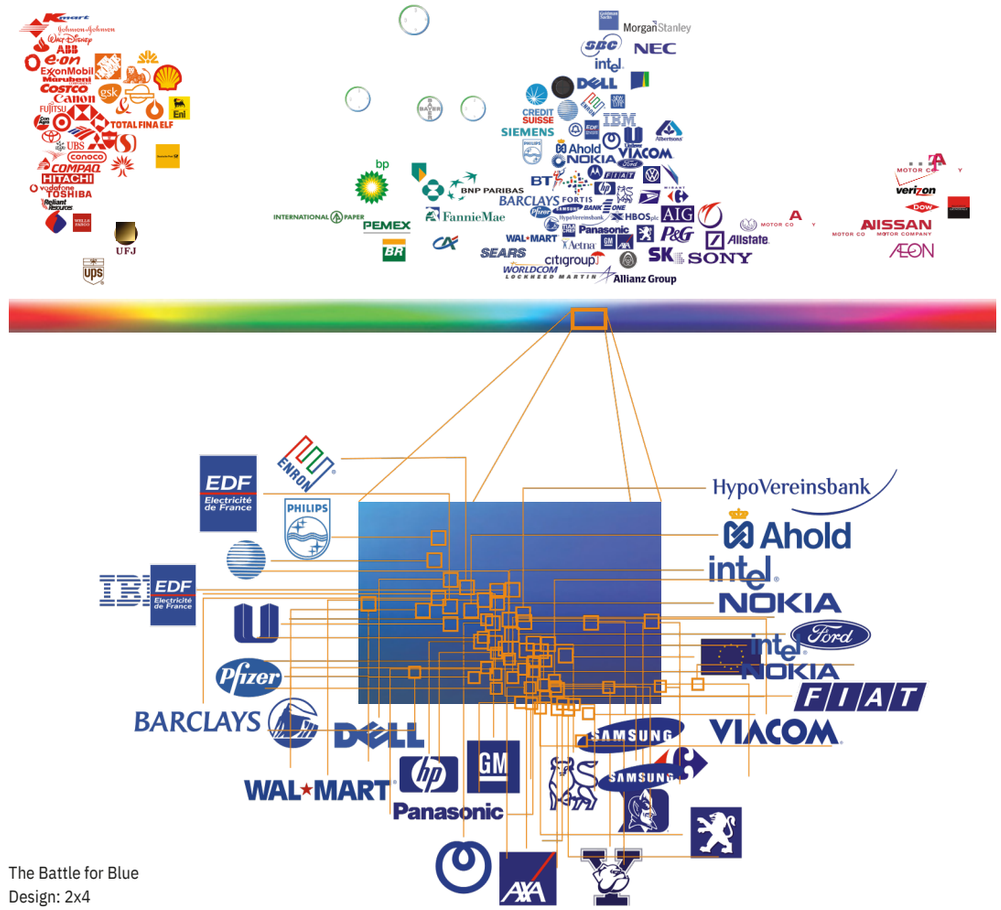
Virtual Supermarket, Second Try. Many visitors to the pilot program wanted to know why groceries were being sold at the library. People needed to understand the problem before they could engage with the solution. The second poster shifted emphasis from the specific program at the library to raising awareness of the issue. Design: Lauren P. Adams and Chris McCampbell.



Language Study
Design: 2x4

Visual Research

The renowned international design firm 2x4 uses visual research to analyze content, generate ideas, and communicate points of view. “We don’t actually use the term ‘research,’ because our method is qualitative. We prefer the term ‘speculation,’” notes 2x4 partner Georgie Stout. 2x4’s speculative studies examine the conceptual space occupied by a brand by looking at the product from diverse, often contradictory, angles. In one such study, “The Battle for Blue,” 2x4 organized multinational corporations according to their proprietary colors, revealing an over-crowded area in the Blue range and underdeveloped potential in Pink and Green. 2x4 has also analyzed subtle differences between museum logos and the uniformity of messages employed by sports companies in order to identify dominant themes and key variations. Research explorations like these can become a foundation from which to create innovative, informed visual solutions.—Christina Beard



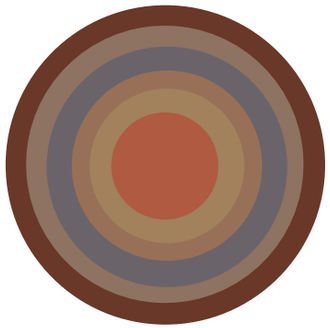
The Battle for Blue
Design: 2x4

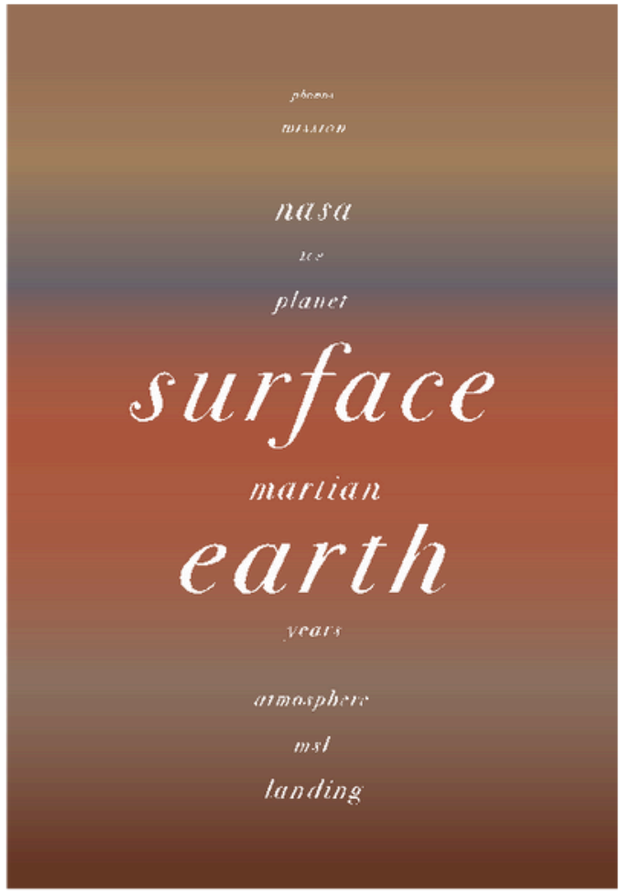
How to Conduct Visual Research

01 Collect. Begin an open-ended study of the brand space of a particular client, product, or service. Look at logos, naming strategies, promotional language, color, and other aspects of the brand.

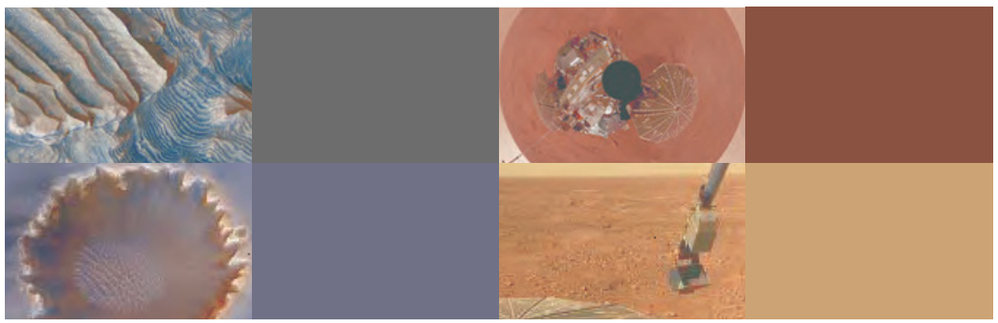
02 Visualize. Choose an area to analyze visually. Look for repetitive patterns and trends, such as recurring vocabulary words, commonly used colors, or consistent product features.

03 Analyze. Draw insights from your data visualization. Does it suggest ways that your client or service could differentiate itself from the pack or assert leadership in a particular area?



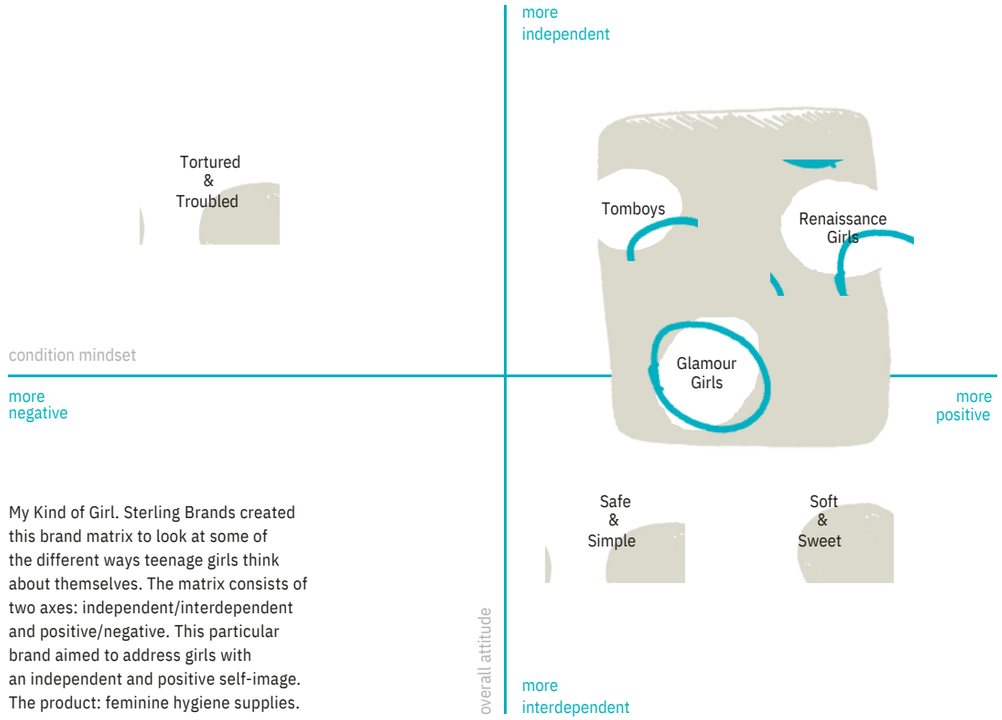


Mars Research. This visual study documents the colors used to represent Mars in scientific imagery. The designer developed color schemes by extracting average hues from hundreds of Mars-related images. She also chose commonly used words from texts describing Mars, both popular and scientific. Design: Christina Beard. Photos courtesy of NASA.



Key Study. Seeking to understand how keys are marketed and distributed, the designer collected photos of numerous keys and sorted them by shape, form, and color. Design: Ann Liu.

Sterling Brands
Brand Matrix (detail)
Art director: Debbie Millman



My Kind of Girl. Sterling Brands created this brand matrix to look at some of the different ways teenage girls think about themselves. The matrix consists of two axes: independent/interdependent and positive/negative. This particular brand aimed to address girls with an independent and positive self-image. The product: feminine hygiene supplies.

Brand Matrix

A matrix diagram crosses two different value scales, such as rational/ emotional and elite/popular. To study a brand, designers or researchers position products or ideas in relation to the matrix, allowing them to visualize relationships. Matrix diagrams commonly are used in design for branding, a broad field that involves product development, packaging, signage, logo design, interior design, service design, and more. Designers help companies or institutions update existing brands as well as launch entirely new ones. Whether performing a modest makeover on a familiar candy bar or building a new product entirely from scratch, designers and their clients look at where the given brand sits in relation to similar products or companies.

Brand mapping can be done with various levels of detail and formality. Designers use matrix diagrams to position brands according to such categories as name recognition, cost/value, prestige, market segment, and so on. The process of making a brand map can draw out people's feelings about a specific product (say, a Ford Explorer) or about a broader category (SUVs). Matrix diagrams help designers visualize other kinds of content as well. Psychoanalysts and cultural anthropologists have used them to map the human psyche and social behavior, while New York Magazine's "Approval Matrix" is a weekly column about popular culture.—Krissi Xenakis

How to Make a Brand Matrix

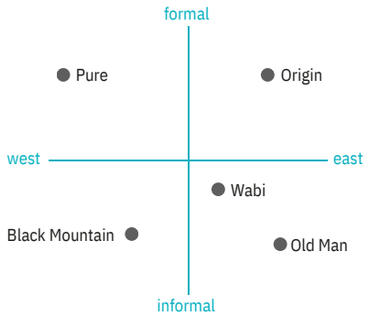
01 Get smart and start a list. Study the subject area you are seeking to understand. This could be a group of products, a user culture, a series of events, or a collection of objects or attributes Create a list of elements to diagram. These elements could be brands, people, personalities, logos, products, etc. The matrix above looks at attributes of teenage girls.

02 Finding opposites. Make a list of polarities that could help organize your material, such as east/ west, high/low, good/evil, formal/ informal, expensive/cheap, fancy/ plain, etc. New York Magazine's weekly "Approval Matrix" charts recent events in popular culture according to the scales of highbrow/ lowbrow and brilliant/despicable.

03 Connect the dots. Plot the elements in your list on the matrix. Look for meaningful patterns in the results. Do items tend to cluster in one area? Is there an empty space that should be avoided, or is there a sweet spot you want to hit? The sweet spot in the diagram above encompasses girls who are independent and have a positive outlook.

Case Study
Tea Packaging Prototypes

Most people don't expect a carton of milk or a can of beans to be philosophical, but a box of tea often promotes ideas about wellness, world culture, relaxation, and more. Indeed, from the bag itself bag to the outer carton, tea can be a densely branded, message- heavy product. Shown here are proposals for new brands of tea that each have a strong visual brand. The designers studied the existing "brand space" of tea before developing new concepts. These prototypes draw on existing cultural ideas about the world's most popular beverage. Speaking to a range of emotions and desires, each of these brands stakes out its own place within the cultural matrix of tea.



Tea Space. The matrix presented below maps the intersection of east/west and formal/informal.

Laid Back. This tea brand uses hand-drawn elements, natural colors, and matte materials to convey an updated hippie attitude. Design: Alex Roulette.

Clean Cure. Many people view tea as a cleansing elixir. This brand responds with high-tech, pharmaceutically inspired graphics. Design: Cody Boehmig.

Upscale Eastern. This elegant prototype uses sleek contemporary graphics to celebrate the Eastern origins of tea. Design: Yu Chen Zhang.

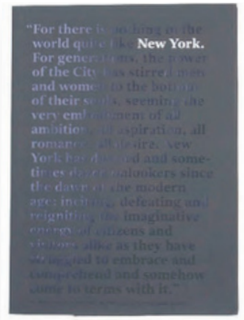
Down Home. Drinking "sweet tea" from canning jars is a favorite in the American South. Black Mountain is a historic town in North Carolina. Design: Julia Kostreva.

Asian American. This packaging combines Chinese characters with humorous illustrations to suggest Asian life in the American suburbs. Design: Tiffany Shih.

Brand Book

A brand book is a way to visualize the personality and life story of a product, company, or organization. The designer uses a selection of colors, shapes, textures, photographs, words, and photos to set a mood, inviting the reader to see and feel the product and to imagine it in the context of a lifestyle or human narrative. Often used to inspire brand loyalty and understanding rather than to promote a specific product, brand books speak to people inside a company as well as to editors, investors, business partners, and consumers. They document the sources of inspiration behind an organization and help to focus its message around tangible images. The brand book helps the company understand itself as well as communicates its point of view to others. The design consultancy Wolff Olins created the brand book shown here for a competition to create a new symbol for New York City. In addition to shots of the city and boroughs they suggest applications of the identity to ads, products, and environments.—Ann Liu

A brand book is about language, attitudes, and ideas more than it is about products.



The Spirit of the City. This brand book compiles images and commentary by famous New Yorkers that reflect the spirit of the city and the brand's inclusive, down-to-earth attitude. Design: Wolff Olins.

How to Make a Brand Book

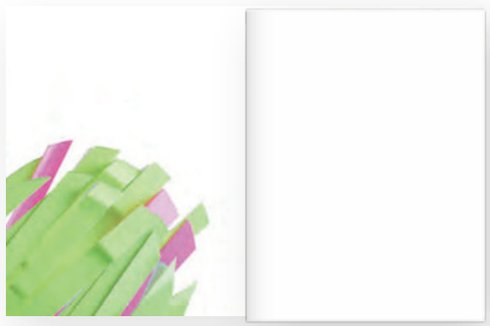
01 Choose a format. Select an appropriate size. A big hardcover volume will feel like a deluxe coffee table book, while a modest 5 x 5 inch saddle-stitch notebook will feel casual and ephemeral. Is your brand an exclusive fashion label or a grassroots social organization? Choose formats and materials that reflect who you are.

02 Collect imagery. Look at everything that brought you to this point: inspirational images, sketches, printed pieces, text, photographs, patterns, textiles. Starting with a diverse pool of materials will help you visualize an authentic brand.

03 Design and combine. The materials you collected might look like a pile of junk; your task is to communicate what each piece contributes to the world you are building. Making connections between images will help the visual language of the brand emerge.

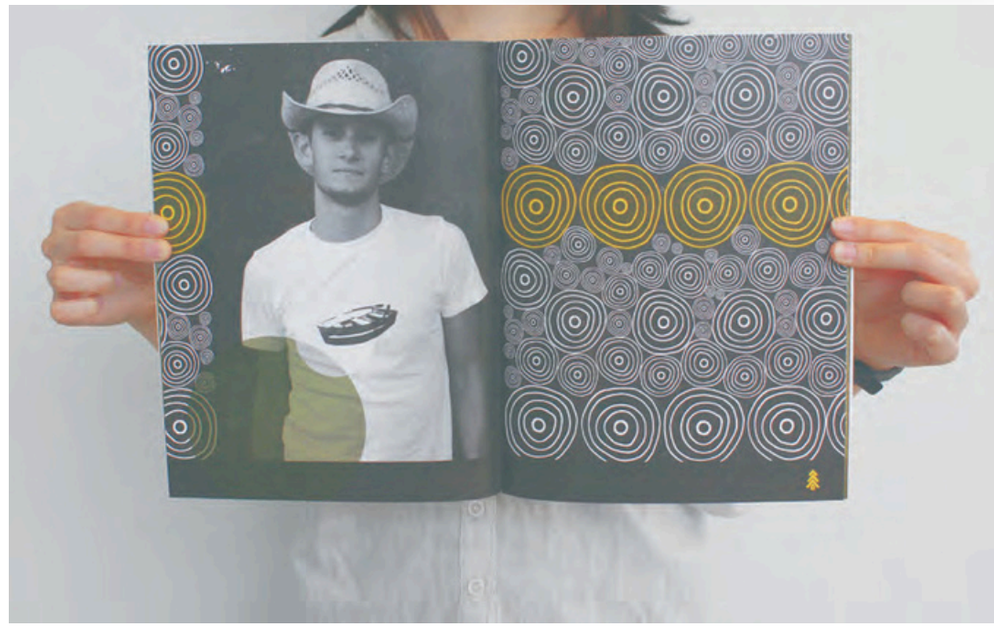
04 Consider the pacing. Juxtaposing full-bleed photography with hand-drawn illustrations or scans of raw materials can provide a break from text-heavy pages. Control the mood. Is your book a constant barrage of photo collages, or does it provide the viewer with a zen moment at the turn of every page? Flipping through your brand book should help viewers imagine living with your product.

05 Make it real. The weight and feel of a real book gives presence to your brand. A brand book can be custom-printed, hand-made, or produced via a print-on-demand publishing service.



Scintilla Stencils. A brand book can showcase real-life applications of a product. Well-crafted visuals help readers envision how a brand functions. The product line shown here is a kit of stamps and stencils for creating patterns. Design: Supisa Wattanasansanee.

Desoto Clothes. This brand book uses images and text with a Southern accent to set the tone for a clothing line. Design: Wesley Stuckey.



Site Photos. Taking several photos to document the site will provide a clearer image of the environment during the design process.

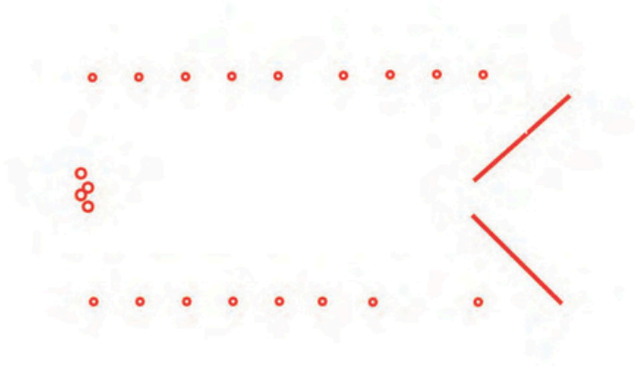
Site Plan. To plan temporary signage for an urban aquarium, the designer created a site plan that marks primary views and main traffic areas in a notational layer. Design: Chris McCampbell

Site Research

Signage and exhibition design incorporate techniques from architecture, industrial design, information design, and graphic design. Site research is essential to any project that exists in the built environment, immersing designers in the concrete constraints of a place. Actively observing a site is like setting up a campsite. Campers make active decisions and modifications to their location—just because there is grass on the ground does not mean a location is ideal. Likewise, by becoming intimately acquainted with a built environment, designers gain the authority to say “this sign is too high,” “this one is hard to find,” or “this one doesn’t belong.”

Signs, textures, colors, sounds, surfaces, and structures all contribute to the built environment. Existing elements can obstruct views or distract visitors, but they can also provide unexpected opportunities. A column could hide a graphic element or block traffic—or it could provide a convenient surface for a sign. Think about who will use your signs and the environment. The Americans with Disabilities Act (ADA) sets standards for accessibility in public spaces. Cultural differences and historic traditions can be a source of inspiration and ideas. Understanding the physical and social context is the starting point for environmental design.—Chris McCampbell, Ryan Shelley and Wesley Stuckey

Existing elements can obstruct views and distract visitors, but they can also provide unexpected opportunities.



How to Research a Site

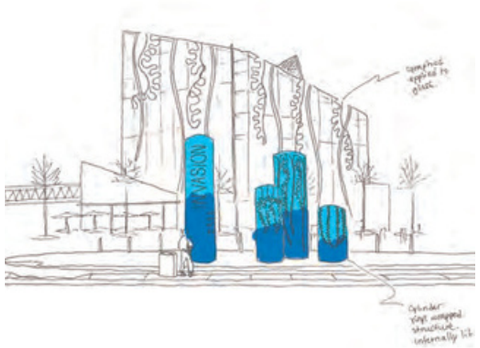
01 Visit the site. The best way to think about a site is to be there. Visit the site at multiple times of day. Traffic fluctuations and lighting can change the space dramatically. Sketch out a plan where you can mark points of interest as well as potential problems.

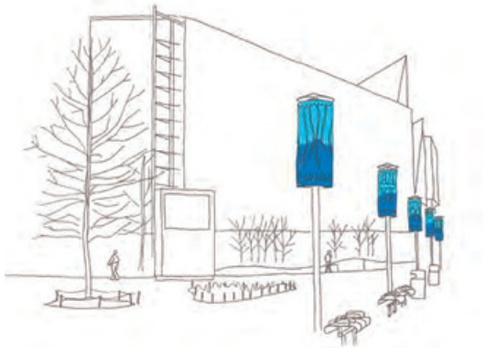
02 Photograph the site and its surroundings. Observe views and traffic from the standpoint of drivers and pedestrians. Where are you likely to enter or exit? What is the view from the street? Note landscaping or architectural features that could affect the project. Be critical of surrounding graphics or other signage that could confuse viewers. Include elements such as cars and pedestrians in your photos to help provide scale reference. Back in your work space, sort your photographs and notes, developing categories for different conditions and problems.

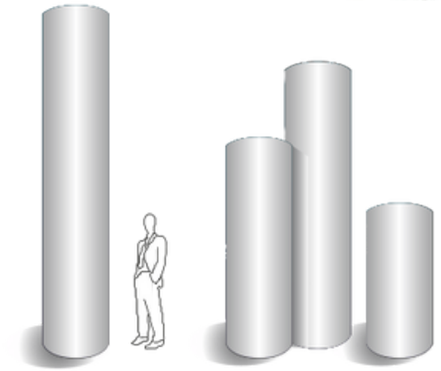
03 Create a site plan. Locate traffic patterns and primary views on a map of the area. (Google Maps and Google Earth are good resources.) The site plan will provide an overall view of the area and reveal zones that are overlooked or overworked. Locate graphics or signage appropriate to the space and the amount of traffic. Consider the purpose of your signs: to identify, direct, or interpret buildings and spaces. Too many graphics could confuse people while cluttering the landscape.

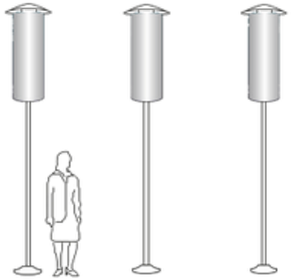
04 Trace photos of the site. Remove distracting elements by reducing photos to simple outlines. Include only what is needed to show the space. This process will allow you to analyze the environment as well as to quickly explore concepts.

05 Sketch concepts. Use your traced photos to explore scale, placement, and architectural relationships. Take advantage of existing architectural and natural features (grids, colors, textures, lighting). These elements will add character and help create a unity between your design and the space which it will help people understand, remember, and navigate.

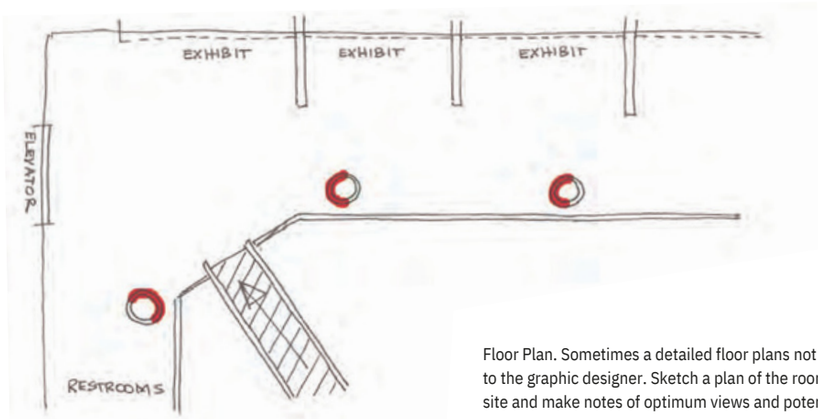




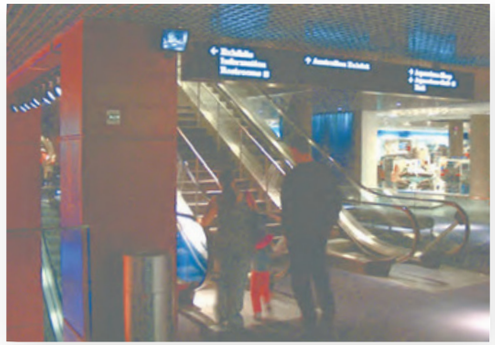




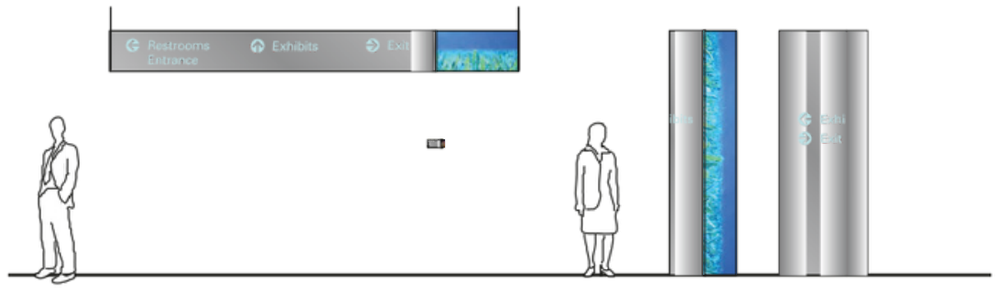
Tracing and Testing. Make simple line drawings by tracing your photographs. This allows you to develop quick concept sketches and experiment with placement. Design: Chris McCampbell.



Floor Plan. Sometimes a detailed floor plans not readily available to the graphic designer. Sketch a plan of the room while you are on site and make notes of optimum views and potential sign locations.



Clear the Way. Again, a simple tracing allows you to eliminate distracting elements and compensate for poor lighting.



Case Study

Baltimore Metro

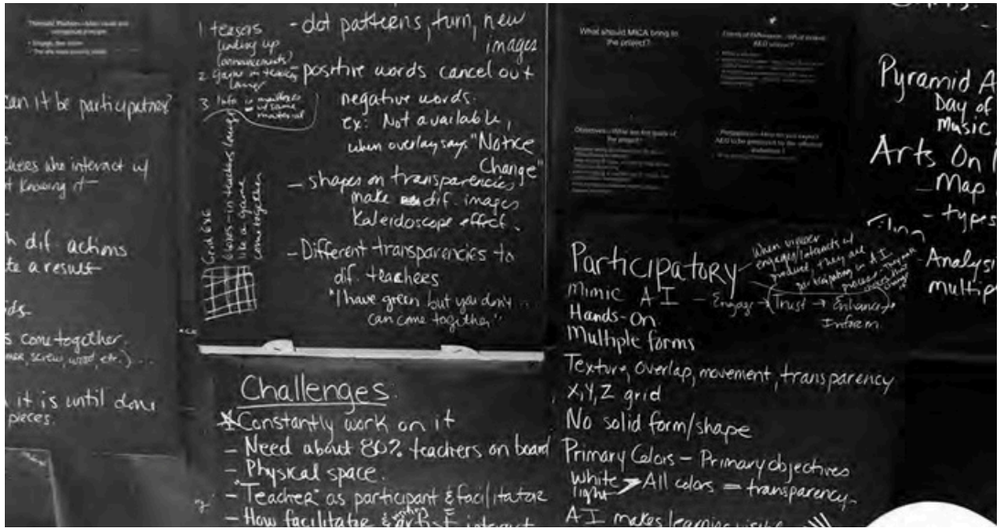
Designers Ryan Shelley and Wesley Stuckey went on site to document the Baltimore Metro's signage system. Traveling to every stop on the line, they photographed hundreds of signs in context. They looked at signs on platforms, inside trains, in stations, and on the street. When they returned to their studio, they printed out the photographs and arranged them on a pin-up wall in order to find problems, patterns, and inconsistencies within the system.

Old Systems. The lozenge-shaped signs are part of the current signage system, but an older system of rectangles is still in play, making the subway station appear poorly planned.

Vertically Challenged. An outdoor sign is visible from the platform, but the sign is placed to high to be seen easily from inside the subway car.

Overlap. Three different visual systems overlap at the entrance to this station. Only the freestanding pillar is from the current system. Additionally, this pillar and many others are missing a subway map.

Drowned Out. Signs are not well-integrated with the artwork that appears in some of the stations. Here, important directional signs get lost in the surrounding mural.



Refining the Creative Brief

Brainstorming the Brief. Designers at MICA's Center for Design Practice draft numerous ideas before narrowing down a project's goals. CDP Director: Mike Weikert. Instructor: Ryan Clifford.

Behind many successful design projects lies a concrete and concise creative brief. This jointly authored statement of goals requires the designer and client to invest time and consideration at the outset of the project. The creative brief then serves as a checkpoint for evaluating work as it progresses. The Maryland Institute College of Art's Center for Design Practice (CDP) is a multidisciplinary studio that engages students in community-centered projects. The CDP has developed a design process that uses the creative brief to inform every step of the design process, from generating concepts and conducting on-site research to producing complex advertising campaigns, exhibitions, and brand identities. Organizations often come to the CDP with vague or contradictory goals. The CDP team uses a questionnaire to help clients articulate their project goals. By combining the designers' own research with client feedback, the team is able to generate effective, focused solutions.

—Lauren P. Adams

How to Refine a Creative Brief

01 Pose questions. Give the client a list of questions about the project. The answers will serve as the first draft of the creative brief. Potential questions include, What characteristics best describe your envisioned outcome? What makes your project unique? Why do you believe your project will succeed? Who is your audience? Who will implement or maintain the project after it is launched?

02 Conduct research. Get to know your client and their audience. Go on field trips and talk to strangers. Spend time exploring similar initiatives. What's been done before? In what environment will your project appear? Is everything you learn in line with the client's answers to your list of questions? Update and refine your creative brief in response to what you have learned yourself.

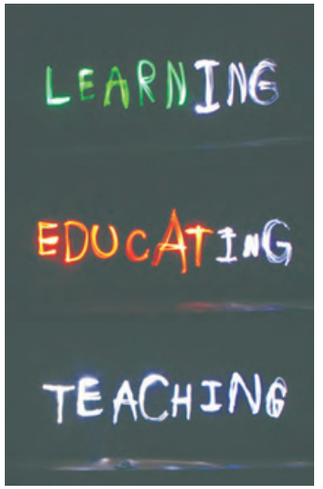
03 Narrow the brief. Using your client's input and your own research, define the essence of the project. Create a single sentence explaining the project's significant features.

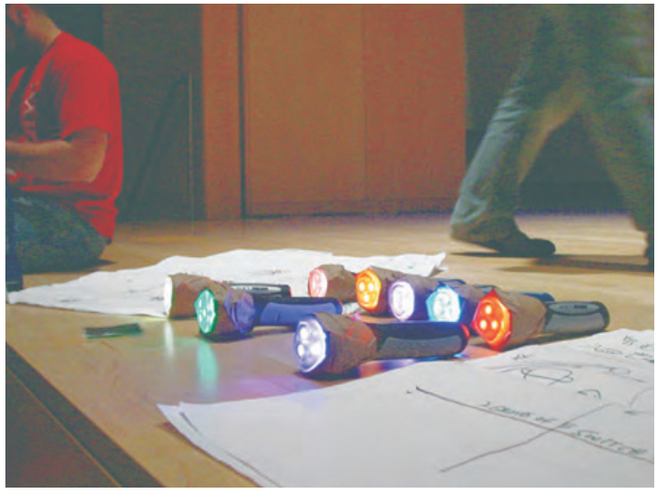
04 Define key messages. List the main ideas the project needs to convey. Discuss the brief document with your client. When all parties agree, start developing solutions that fit the project's goals.

Case Study

Arts Every Day

Arts Every Day is an organization that aims to make the arts an integral part of education in all Baltimore City schools. In their responses to a questionnaire from MICA's Center for Design Practice, Arts Every Day said they needed a promotional piece to help teachers and administrators realize the importance of arts integration in their curricula. To learn about its audience, the CDP designers spent time in two Baltimore City middle schools, observing arts-integrated lessons and speaking to students, teachers, and arts coordinators. The designers realized that in order to understand arts integration, you needed to see it in action. The project's solution was to develop a lesson for middle schoolers that taught principles of art and design while creating a light-writing video that served as a promotional tool for Arts Every Day. The video captured the essence of the project—to demonstrate the potential of arts integration in the classroom. The video also incorporated the project's key messages: to put the student at the center, to learn in a tangible and physical way, and to combine with two or more subjects to create something new.





Light Writing. This arts-integrated lesson plan incorporates movement, design, photography, video, and teamwork. Here, the students practice writing symbols with flashlights. Design: Center for Design Practice, Maryland Institute College of Art.

Video Creation. These stills are from the lesson and promotional video. See the whole video at danube.mica.edu/cdp.

02

How to Get Ideas

Once you have defined your problem, it's time to devise solutions and develop concepts in greater depth. This often means communicating ideas to yourself and to other designers on your team as well as to clients and potential end-users. An intriguing sketch from your notebook or a provocative phrase scribbled on a white board can now become a concept with a concrete shape and a vivid story to tell.

The first phase of the design process involves casting a wide net around your problem; along the way, you may have come up with dozens of different concepts, from the obvious to the outlandish. Before devoting time and energy to developing a single solution, designers throw open their minds to numerous possibilities and then zero in on a few. The tools explored here include ways to generate variations on a single concept as well as ways to quickly explore, explain, and expand on a single idea.

With a single-frame project like a book cover, poster, or editorial illustration, the move from ideation to execution is fluid and direct. With complex projects such as websites, publications, motion graphics, or systems, designers tend to work schematically using diagrams, storyboards, and sequential presentations before developing the visual details and appearance of a solution. Physical and digital mock-ups help designers and clients envision a solution in use.

Visual Brain Dumping

Traditional brainstorming is a verbal activity that is often performed in groups. The technique shown here transforms brainstorming into a visual medium better suited for working individually. Designer Luba Lukova is known worldwide for creating hard-hitting posters that revolve around a single strong image. In many of her pieces, two ideas converge to create an arresting visual statement. This collision of concepts creates a third meaning that is more powerful than the sum of its parts. The resulting posters simmer with humor and conflict. Lukova's design process begins with intensive sketching. After defining the emotional or political content she wants to convey, she creates dozens of small sketches that search out different combinations of imagery. For a poster for The Taming of the Shrew, Lukova sought out surprising ways to depict the age-old theme of the battle of the sexes. Her initial ideas included a bra made of two faces, a high-heeled shoe bearing down on a man's body, and a heart squeezed in a vise. Several sketches show a woman wearing a horse's bridle; the final image compresses the idea further by equipping the woman with a muzzle shaped like a man.—Ellen Lupton

The convergence of two ideas is greater than the sum of its parts.

The Taming of the Shrew. Sketches and poster for the Center for Theater Studies at Columbia University. Design: Luba Lukova.

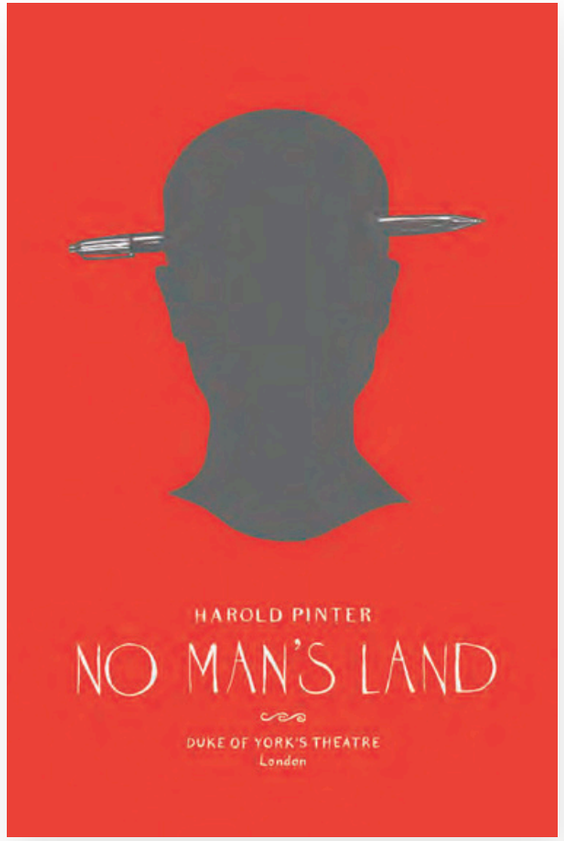
How to Make a Visual Brain Dump

01 Start sketching. After defining the basic purpose and parameters of your project, get some paper and a pencil and start making quick, small drawings.

02 Set a time limit. In a twenty-minute period, shoot for at least twenty sketches. Put many small drawings on each page so that you can compare them.

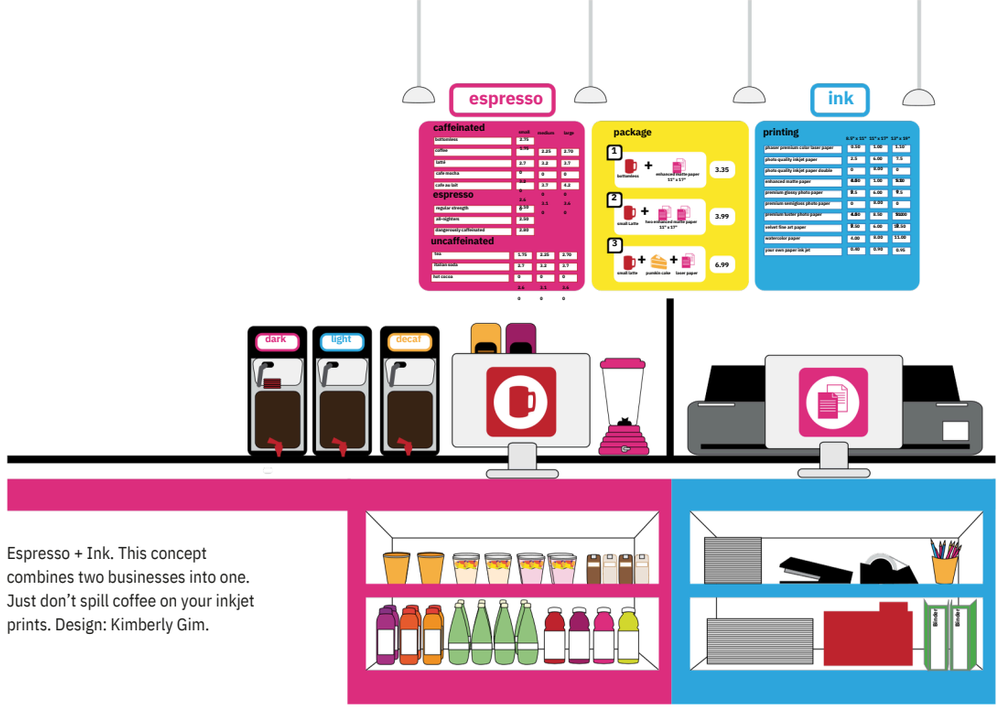
03 Keep moving. Rather than erase and refine a single sketch, make alternative views of the same idea. Review your work and choose ideas to pursue further.

Blue Is The New Black. Students in a sophomore-level basic design course were asked to create a poster for a lecture about why contemporary women report being unhappy, despite all the apparent economic and social gains they have collectively achieved over the past several generations. Each designer made dozens of quick sketches about the lecture's theme before developing concepts visually. Design: Kimberly Gim.



No Man's Land. In a workshop led by Luba Lukova, designers developed sketches and finished posters for a production of No Man's Land, a brooding existential play about some drunken and confused literary types spending a long and terrible night together. Design: Virginia Sasser.

Coffee + Constructivism. Embracing a Depression-era international aesthetic, this no-nonsense coffee shop eliminates such confusions as whether "venti" means medium or large. Design: Djamika Smith.



Espresso + Ink. This concept combines two businesses into one. Just don't spill coffee on your inkjet prints. Design: Kimberly Gim.

Forced Connections

From cookie-dough ice cream to zombie/Jane Austen novels, intriguing products often result when unlikely players collide. By brainstorming lists of products, services, or styles and then drawing links between them, designers can forge concepts imbued with fresh wit and new functions. For example, most java houses today look alike. They feature dark reds and browns, wooden tables and floors, and—if you're lucky—a comfortable couch. But what if a café had Constructivist decor instead? Or what if your errand to the print shop doubled as your coffee break? Likewise, laundromats get a rap for being dirty and dingy, yet public laundries offer a greener alternative to individually owned appliances. How could you make the laundromat a more inviting experience? Combining services or applying unexpected styles can change the way we think about stale categories.—Lauren P. Adams and Beth Taylor

Don Koberg and Jim Bagnall discuss the idea of forced connections as a tool for product designers in their book Universal Traveler (Los Altos, California: William Kaufman, Inc., 1972).

How to Force a Connection

01 Choose a connection. Depending on whether you are designing a business service, a logotype, or a piece of furniture, decide what kinds of connection to force. Maybe you want to combine services (gym + laundromat), aesthetics (serious literature + cheap horror), or functions (sofa + work space).

02 Make two lists. Let's say your goal is to design a new kind of coffee shop. Brainstorm lists of functions—tailor, pet grooming, bicycle repair. Make connections and imagine the results. What would each new business be called? What needs does it address? Who is the audience? Would you want to go there?

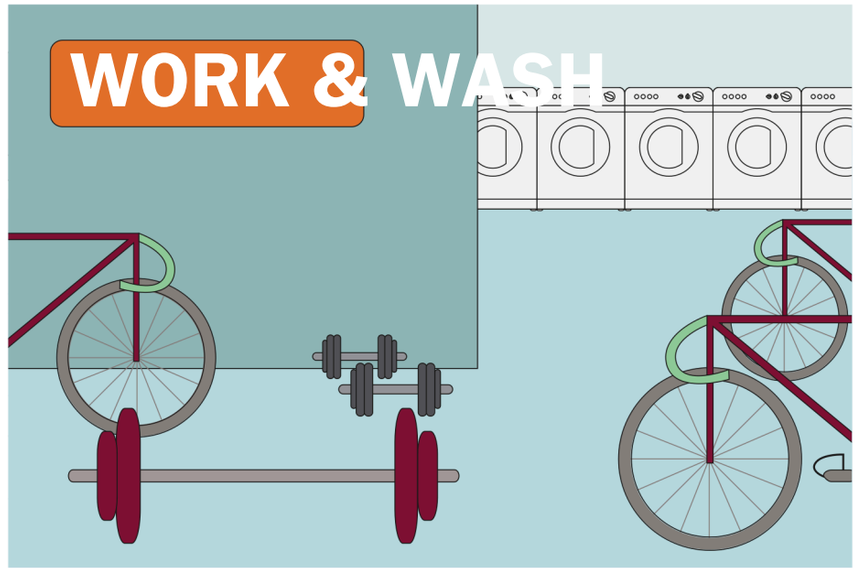
03 Combine styles, messages, or functions. Identify conflicting or overlapping ideas embodied in your core problem (museum + nature, school + lunch, coffee + economy). Create lists of images and ideas associated with each element, and draw connections between them.

04 Choose one or more viable ideas. Make simple graphic images of interiors, products, and other applications to bring your concept to life. Your choices of forms, color, language, and typography can all speak to the core conflicts and collisions embodied in your concept. Use your forced connections to uncover the aesthetic and functional possibilities of your idea. Flat, graphic diagrams like the ones shown above quickly flesh out the main features of an idea without getting burdened in specifics.

Case Study
Laundromats

These visual proposals for new laundromats resulted from the process of forced connections. A team of designers developed ideas by looking at different styles and functions that could transform a laundromat from a dreary place to a pleasant destination.

Agitate + Percolate. This concept applies retro graphics to a combined laundromat/coffee shop. The designer created photomontages and product illustrations to visualize the concept. The logo reflects the company's funky, nostalgic attitude, while the apron-style uniform emphasizes the fun part of the experience: enjoying coffee while your laundry dries. Design: Beth Taylor.



Laundromat + Gym. Maximize your time by working out while your clothes wash—and enjoy the sauna while they tumble dry. Design: Beth Taylor.

Laundromat + Rococo Style. Chit-chat with friends in this boudoir-like setting. Simple interior elevations help convey these concepts. Design: Lauren P. Adams.

Case Study

Multipurpose Tools

Your house is filled with tools. What happens when you combine two or more of instruments to make something new? This quick exercise using forced connections yields some ideas that are impractical or absurd but others that could become real products with clever functions. The designer started with verbal lists and then made sketches combining ideas from different lists.

Office Tools	Kitchen Tools	Garage Tools
thumbtack	spatula	wrench
stapler	ladel	hammer nail
scissors	whisk	tape measurer
masking tape	butcher's knife	t-square
3-hole punch	tongs	trowel
ruler	vegetable peeler	handsaw
pencil	corkscrew	clamp screw
glue	can opener	screwdriver
marker	drink shaker	level staple
paperclip	measuring cup	gun
staple remover	dish scrubber	
compass	grater	
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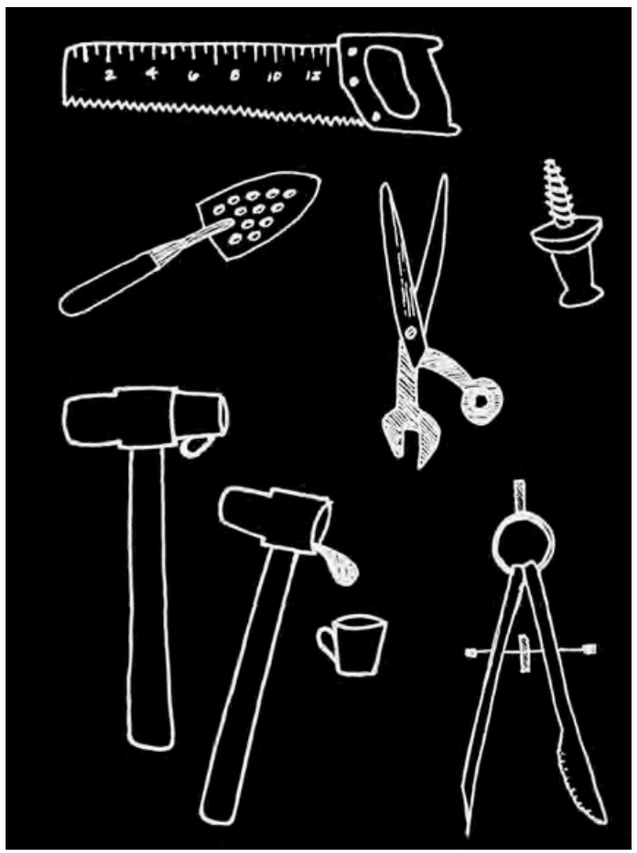


Handsaw + Ruler Nearly every saw cut requires measuring first, so why not add a ruler to the saw blade?

Grater + Trowel Scoop up your freshly grated cheese or crumble chunks of hardened dirt before planting.

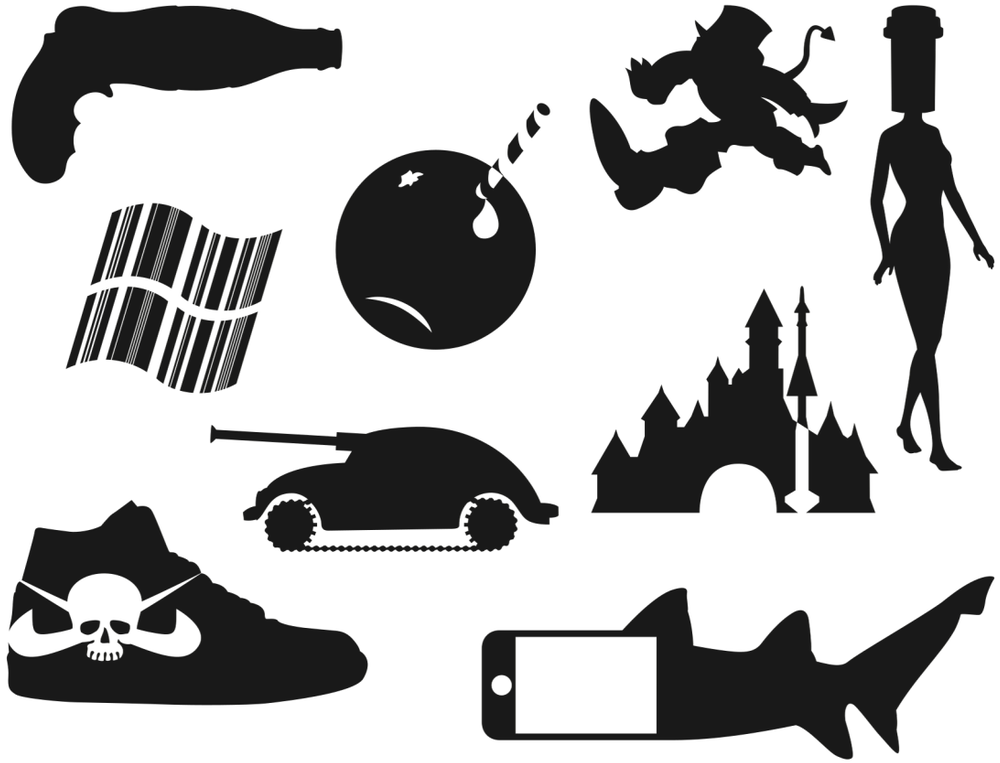
Scissors + Wrench This looks like a clever idea until you consider trying to actually cut something.

Thumbtack + Screw The thumbtack head would give your hand something to grip while the screw threads make the tack secure.

Sledgehammer + Shaker The motion of hammering is similar to the motion used to shake a drink. (Sober up before swinging that hammer around.)

Compass + Knife Cut your cookies to an exact dimension with this gadget for the cook who loves math.

Design: Lauren P. Adams



Case Study

Visual Puns

Designers often use humor as the bait to hook the viewer's interest. Slamming disparate elements together creates unexpected offspring, and when the result is awkward enough to be funny, viewers come away with a laugh. Sometimes, the cleverness comes with a critical edge that transcends an immediate guffaw. The visual puns shown here create dark imagery out of recognizable brands, inviting the viewer into a Seussical world where the clowns are the preachers.

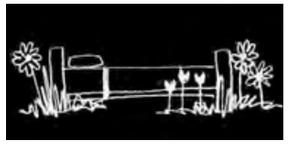
Quality Control. Iconic products are combined with unpleasant forms (guns, pills, bombs, sharks), creating a commentary on the dimmer side of capitalism. The designer translated these graphic icons into graffiti stencils. Design: Ryan Shelley.

Minify: City Cabin

Magnify: Giant Garage

Rethinking the House. Don Koberg and Jim Bagnall used action verbs to think about the house in new ways in their book, *The Universal Traveler.* They got the idea from Alex H. Osborn, who presented this technique in his book Applied Imagination. Concepts: Don Koberg and Jim Bagnall. Sketches: Lauren P. Adams.

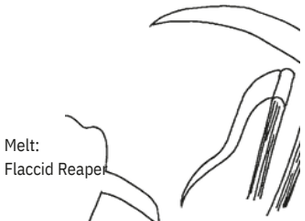
Rearrange: Sleep In the Kitchen



Reverse: Live in the Garden

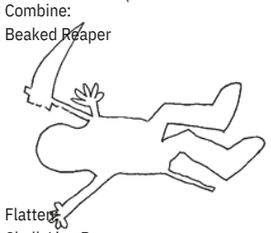
Action Verbs

Alex H. Osborn, the Madison Avenue advertising man who became famous for inventing "brainstorming," devised other useful techniques that encourage creativity. One process involves taking an initial idea and applying different verbs to it, such as magnify, rearrange, alter, adapt, modify, substitute, reverse, and combine. These verbs prompt you to take action by manipulating your core concept. Each verb suggests a structural, visible change or transformation. Designers can use this exercise to quickly create fresh and surprising variations on an initial idea. Even a cliché image such as the "grim reaper" or "hit the bullseye" can take a surprising turn when you subject it to tangible actions. Designers can apply this technique to objects and systems as well as images. Try reinventing an everyday object such as a house, a book, or a couch by imagining it in a different scale, material, or context.—Lauren P. Adams



Melt:
Flaccid Reaper

Combine:
Beaked Reaper



Flatten:
Chalk Line Reaper

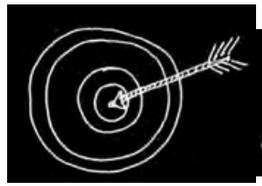
Sketches: Molly Hawthorne

Hang in There
Sketches: Beth Taylor

Flatten

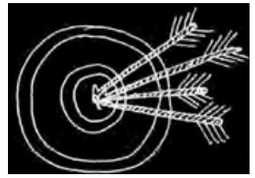
Stretch

Invert

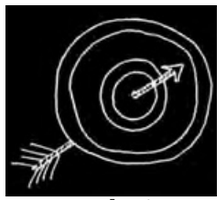


Hit the Bullseye
Sketches: Chris McCampbell

Magnify



Multiply



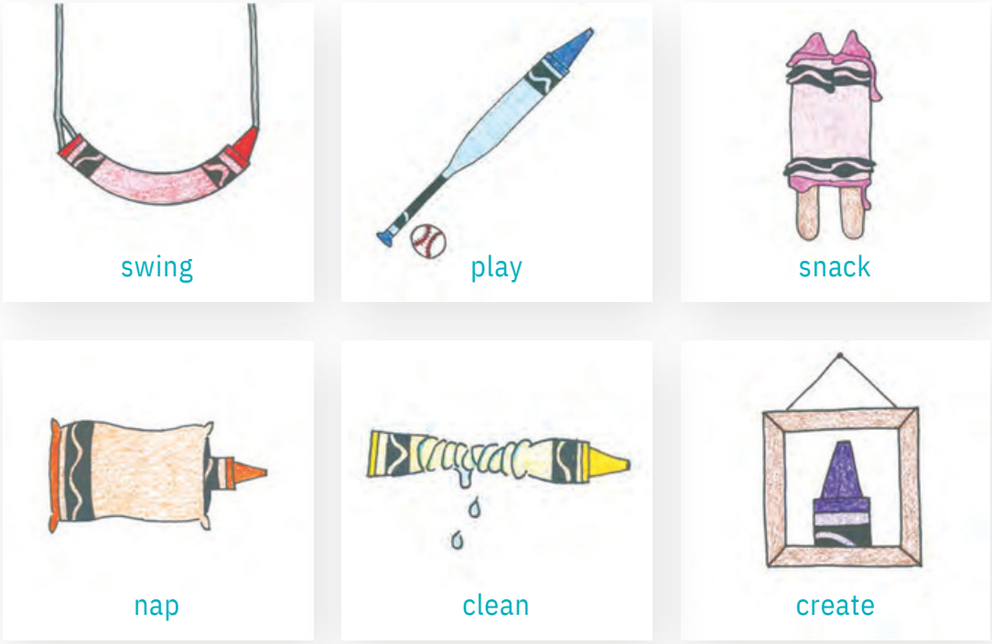
Invert

How to Activate an Idea

01 Start with a basic concept. Maybe it's an obvious idea, such as using a target to represent "performance" or a struggling kitten to show "courage." Like many clichés, these familiar images provide a common ground for communication that many people understand.

02 Apply a series of actions to the core image or idea. Create quick sketches. In addition to the words listed above, try more unusual ones like melt, dissect, explode, shatter, or squeeze. Don't judge your sketches or spend too much time on one idea; move quickly through your list.

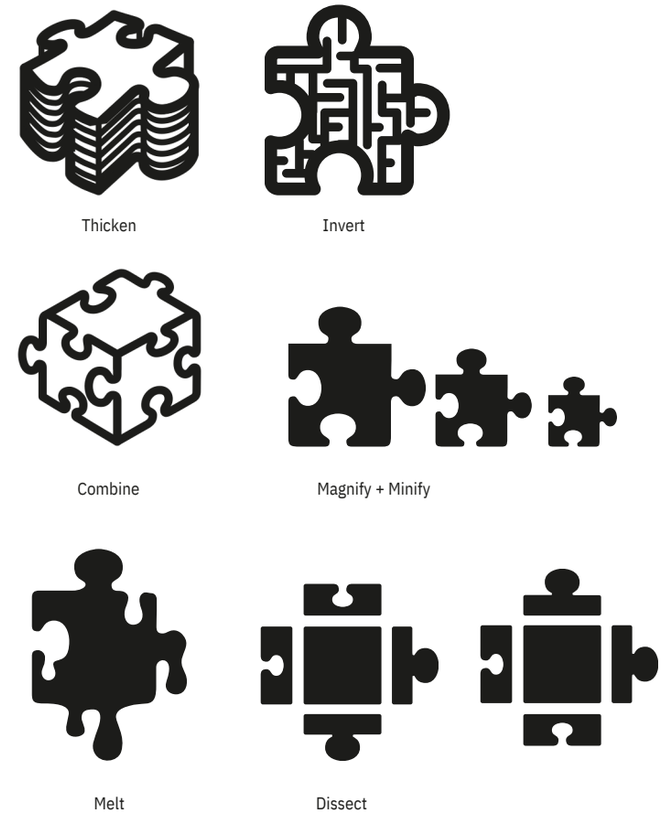
03 Step back and look at what you did. Have you given a new twist to an old cliché? Have you solved a familiar problem in a fresh way? A new ending to an old story? (What if the kitten falls out of the tree? What if the Grim Reaper kicks his own bucket)? Find your best ideas and take them farther.



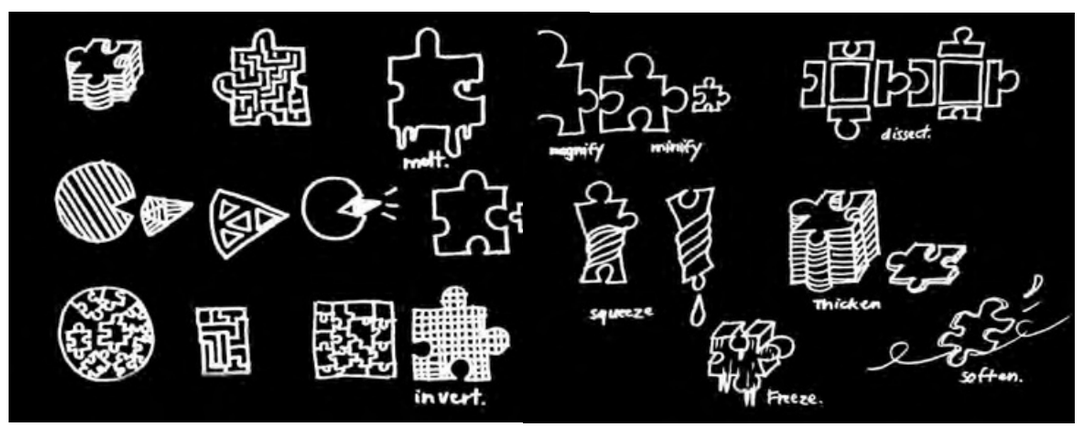
Crayon Daycare Identity. To create this signage system, the designer used action verbs to transform an image of a crayon into different icons. Each one represents an activity station at a daycare center. Design: Lauren P. Adams.

Case Study
Active Icons

In the identity concepts shown here, designers used action verbs to create variations on core ideas. Using a crayon as its basic image, a signage program for a childcare center uses actions such as bend, soften, transform, melt, wring, and frame to put the crayon into new contexts. Likewise, an icon for a toy store begins with a familiar image (a puzzle piece) and then transforms it in unexpected ways by applying a series of actions to it. Each of the resulting designs puts an unexpected spin on a familiar image.



Puzzle Pieces. Puzzle pieces are a common symbol for toys and thinking, so they make a good starting point for representing an educational toy store. These designs put an active spin on an old cliché. Design: Supisa Wattannannsansanee.



Everything from Everywhere

Graphic designers are barraged by the work of other designers and artists as well as by constant contact with nature and science, news media and pop culture, high art and visual pollution. Many artists and authors turn inward to a lifetime of personal experience and human emotion to discover sparks of meaning and connection. Yet inspiration also comes from the world around us. Looking outside of yourself is a key strategy for finding ideas.

Instead of churning out design work inspired exclusively by client briefs and last year's design annuals, consider looking everywhere else. Systems and grids exist in nature, from the human circulatory system to tree bark and rock formations. Artists frequently mine literary works for ideas—Dante's hell is a model for circular worlds, and Shakespeare's tropes are an endless source of narrative invention. Designers sometimes fall short of painters and playwrights in looking beyond their own field. Many are comfortable with pillaging scientific graphs for stylistic cues while returning conceptually to traditional design ideas. The resistance to inspiration is not unique to designers; many Americans eat chicken nuggets but won't read Huckleberry Finn.

By looking beyond the familiar, designers can pull everything from everywhere. Colors, typefaces, illustrations, and other aspects of content can be chosen for their historical significance and contemporary connotations. Looking everywhere can help designers unlock humor by slamming together disparate elements into new concepts. (See Forced Connections, page XX.) Just as ideas can come from anywhere, nothing really comes from nothing. All artists draw from the culture around them.—Ryan Shelley and Wesley Stuckey

Tectonics. The wood type used in the poster at right heightens the tension between foreground and background and implies the slipping and collision of plates.

Rock Music. The rawness of rock music and its requisite posters are a source of ideas about color, rhythm, and tactility.

Subway Maps. Public transit implies urban life and urban structure. The grid-like forms of a subway map connect diverse populations. Texture. This poster's hand-drawn texture is denser at the center, a pattern that implies the radiating damage of the quake and an inadequate influx of aid.

Design: Ryan Shelley.

16:53. This poster was created for the Haiti Poster Project, a collaborative effort launched after an earthquake struck Haiti at 16:53 PM, January 12, 2010. The Haiti Poster Project invites designers and artists to donate signed, limited-edition posters, benefiting Doctors Without Borders. The Haiti Poster Project founded by Leif Steiner and Josh Higgins.

How to Get Everything from Everywhere

01 Be a sponge. Not like a scrub-the-sink sponge, but like a sea sponge. Be actively absorbent, sifting for food. Notice everything. Most importantly, read everything—J. R. R. Tolkien was a genius and all artists can learn from geniuses.

02 Keep a sketchbook. If your best friend's shirt looks cool against your carpet, note the colors. If song lyrics spark ideas for a photoshoot, write them down. Eventually, this motley assortment of notes will prove invaluable. Many good ideas come in the shower, so having a keen memory helps too.

03 Observe other artists and designers. Learn how they get their ideas and then do the same. Look at everything; there's always something new to learn.

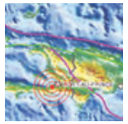
04 Make a database. Collect books, explore songwriting, and visit the zoo. Bookmark images and ideas online. Try building a grid based on ballet blocking. Making a personal database is like building a library where you can borrow design components on demand.

05 Work with a concept in mind. Synthesizing diverse elements is tricky, but framing decisions through a specific form or conceptual idea can help the design process flow smoothly.

Mandala. These Buddhist markings represent peace, tranquility, and meditation. They also designate sacred spaces.

Drawing. The continuous line references the link between Haiti and the world relief effort and the global Haitian diaspora.

Dirt. The rough, red color and texture of the paper mirror the raw grit of the damaged ground.



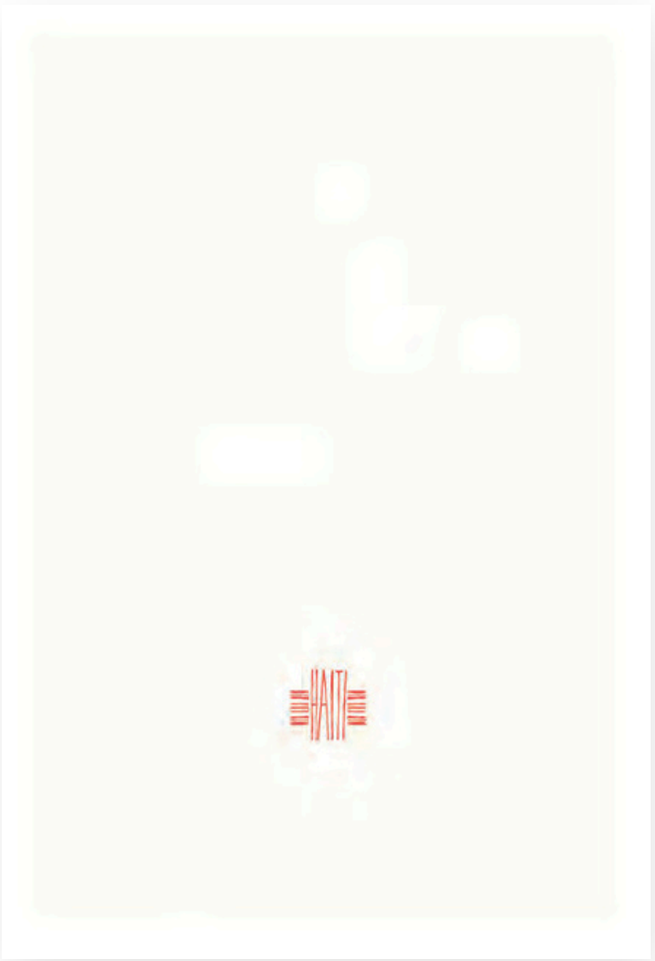
Map. As in an earthquake map, rings indicate the reach of the event.

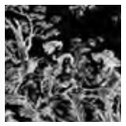
Design: Chris McCampbell.

Case Study

The Haiti Poster Project

Three designers donated posters to benefit Doctors Without Borders. They documented their source material to illustrate how a single topic can be interpreted with reference to disparate visual and conceptual cues.





French Toile. Illustrative fabric patterns from French China reference Haiti's French roots and its picturesque coastal views.

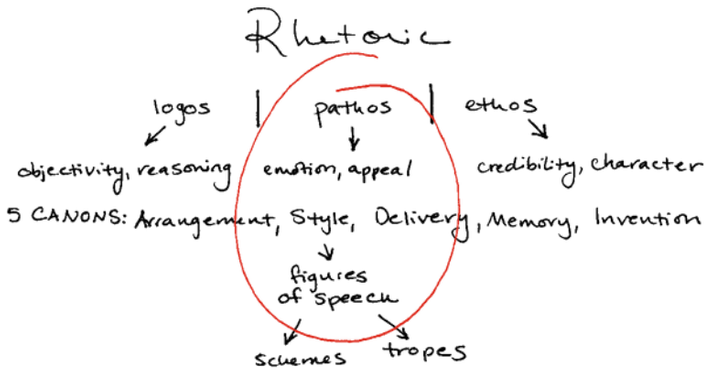
Red Cross. The Red Cross symbol represents help, peace, relief, and hope as well as injury and pain.

Lens. The circle points to how the tragedy in Haiti has been seen by foreigners—primarily through third-party media outlets.

Planet Earth. The typography references Haiti as an island nation on our planet.

Design: Wesley Stuckey

Consciously and unconsciously, designers draw on numerous sources to create their work. Making this process deliberate can expand your visual vocabulary.

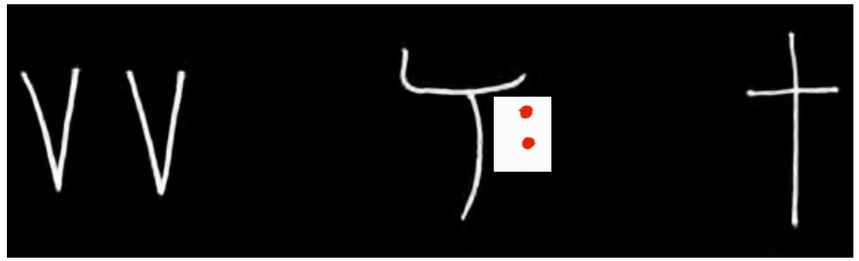


Rhetorical Figures

For centuries, poets, speakers, and writers have used carefully crafted patterns of language to appeal to people's logos, pathos, and ethos, or reasoning, emotions, and ethics. Rhetoric, or the art of communication, forces active connections between concepts and visual understanding. Rhetorical devices not only create a level of seduction, persuasion, and beauty with words, they can do the same for design. According to Aristotle's Rhetoric, the three elements of an effective argument are "first, the means of producing persuasion; second, the style, or language, to be used; third, the proper arrangement of the various parts of the speech." Designers also play with modes of persuasion, style, and arrangement. Of particular value to designers are rhetorical figures, or those literary forms and tactics that deviate from ordinary communication.

Aristotle codified the art of rhetoric in 350 BCE; see Rhetoric, trans. W. D. Ross and W. Rhys Roberts (New York: Cosimo Classics, 2010). Hanno Ehses and Ellen Lupton apply rhetorical principles to graphic design in Design Papers: Rhetorical Handbook (New York: The Cooper Union, 1988).

Figures of speech enhance meaning while ornamenting the rhythm and sound of language. A scheme is a figure of speech that alters the expected word order of a statement or phrase, while a trope plays with its meaning. Rhetorical figures, while typically referring to verbal language, also apply to images. They can serve as tools for generating concepts and for stimulating the form-making process by suggesting alternate arrangements. Just as using figures of speech in language helps a writer depart from conventional form, applying them to images, objects, and layouts helps separate a work of design from ordinary practices, making it...well, more poetic.—Virginia Sasser



Vampire Rhetoric
Synecdoche, Metonymy, and Antithesis

Basic Figures of Speech

01 Metaphor. A comparison between unlike things or ideas to demonstrate their shared qualities. Her friend the vampire is a hungry mosquito in summertime.

02 Personification. Attributing human qualities to inanimate objects or abstract ideas. The moon grinned and winked at the stealth yeti.

03 Metonymy. Referencing a term by naming something that is commonly attributed to it. The pen is mightier than the light saber.

04 Hyperbole. Rhetorical exaggeration for the purpose of emphasis or humor. You could see her hesitation from outerspace.

05 Repetition. The repetition of the same word or phrase amidst a larger clause. I bake to eat; I bake to feed; I bake to procrastinate.

06 Allusion. A direct or indirect reference to a person, place, or thing as a means of communicating to the reader. He turned the sidewalk into his own Jackson Pollock.

07 Polyptoton. Repetition of words drawn from the same root. I didn't follow the leader; I led him right into the coup.

08 Anthimeria. The replacement of one part of speech for another, like a verb for a noun or an adjective for a verb. Unhand me, you beast!

09 Anastrophe. The reversal of normal word order. Into the pristine lake the plump boy cannon balled.

10 Synecdoche. Using a part of an object to represent its whole. He only dated her because he dug her wheels.

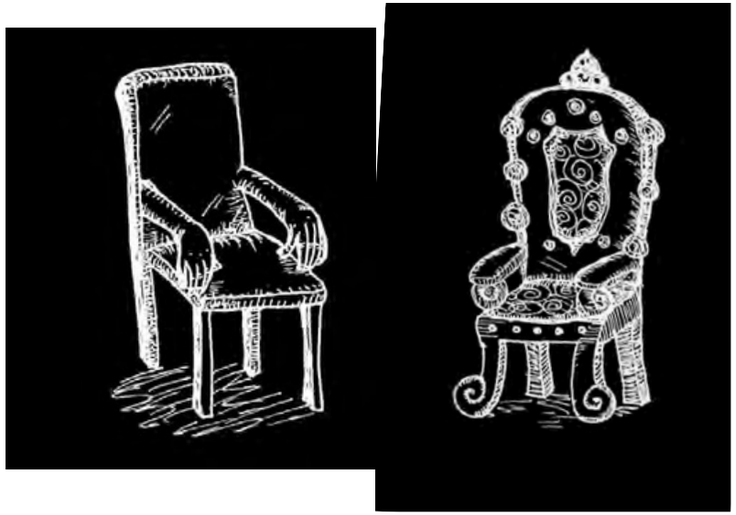
11 Ellipsis. Omitting elements from a statement that are implied by the context. I love my dog, and he the frisbee.

12 Litotes. A form of understatement, often using double negatives. Her personality was not unlike sandpaper.

13 Amplification. Exaggerating or embellishing an image or concept by listing its particulars. The snake's rattle—its scaly, beige, ominous rattle—warned me to halt.

14 Paradox. Contradictory statement or ironic absurdity that goes against intuition. I'm too old for gray hair.

15 Paronomasia. A pun, or use of wordplay by utilizing similar sounding words. These nachos are not yours.



Personification. Human qualities are attributed to the chair.

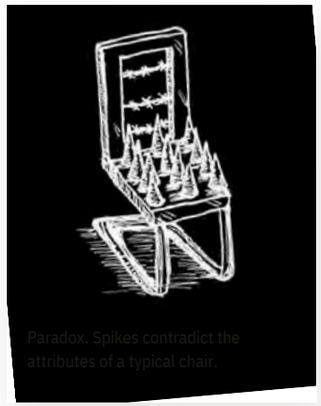
Metonymy. “Throne” is a word commonly used to refer to a king or ruler.

Case Study
Rhetorical Chairs

Writers employ figures of speech to express ideas through the surprising use of language; designers can implement these same figures to make unexpected use of both images and words. In writing, figures of speech often serve to express ideas with a mental picture. They not only inform readers but help them remember the message and cast a new light on familiar elements. Here, designer Virginia Sasser has created a series of chairs to demonstrate rhetorical figures. An exercise like this prompts designers to think conceptually about a problem, instead of going straight for the literal answer (no paronomasia intended).

Allusion. The chair and pipe are classic allusions to Sigmund Freud.

Amplification. A visual list of chair parts.

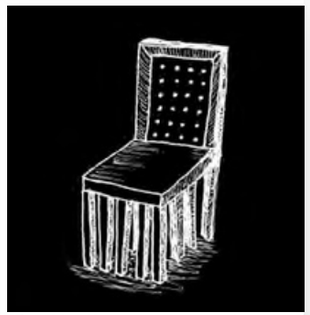


Paradox. Spikes contradict the attributes of a typical chair.

Antithimeria. The toilet is a seat that can be repurposed for use as a chair.

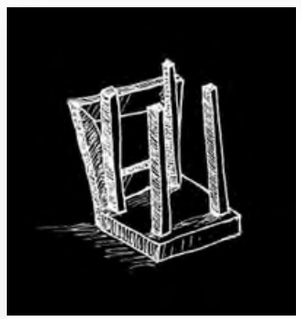
Ellipses. One of the chair legs is left out of the picture.

Synecdoche. A whole office chair is implied from just wheeled base.



Repetitio. Holes and legs repeat on the chair.

Litotes. A cushion on the floor understates the chair’s purpose.



Anastrophe. Legs mounted to the seat invert the natural order of the chair.

Hyperbole. The extra tall office chair exaggerates its adjustability.

Antithesis. The chairs are of similar structure but contrasting directions.

Experience Acela. In this series of advertising illustrations, the train becomes a visual metaphor depicting various attributes of train travel. The images omit the physical seating (ellipsis). The laid-back postures of the passengers serve as metonymies for the train's lounge-like furniture. The result is a provocative depiction of the ease and pleasure of rail travel. Illustration: Christoph Niemann. Art direction: Megan McCutcheon. Agency: Arnold Worldwide. Client: Amtrak.

No Man's Land. Empty chairs stand in for the two main characters (metonomy). The contrasting styles of chair suggest the opposing emotions of the characters (personification). Poster created in a workshop taught by Luba Lukova. Design: Ann Liu.

Charles S. Peirce founded semiotics in the late nineteenth century. See The Philosophical Writings of Peirce, ed. Justus Buchler (New York: Dover, 1955). For a visual introduction, see Sean Hall, This Means This, This Means That: A User's Guide to Semiotics (London: Laurence King, 2007.)

Icon, Index, Symbol

Semiotics is the study of how signs work. Semiotics (also called semiology) was conceived at the turn of the twentieth century as an analytical tool for use by linguists, anthropologists, and cultural critics. This intriguing academic discipline has provided key concepts to a variety of intellectual traditions, from pragmatist philosophy and structural anthropology to post-structuralist criticism in literature and art.

Designers can use semiotics to generate meaningful forms as well as to study existing signs and communications. For example, when creating a logo or a system of icons, designers can look at the basic categories of visual sign in order to generate ideas with various degrees of abstraction or familiarity. The American philosopher Charles Sanders Peirce and his follower Charles Morris identified three basic types of sign: icon, index, and symbol. An icon (such as a drawing of a tree) bears a physical resemblance to the idea it represents. In contrast, a symbol is abstract (such as the written or spoken word "tree"); its form bears no resemblance to its meaning. Finally, an index points to its referent or is a trace or direct impression of an object or event. A shadow of a tree or a fruit or seed that has fallen to the ground is an index of the tree. Indexical signs often signal a physical action or process. Smoke signifies fire; an arrow directs attention in a given direction.

Visual signs are often layered, embodying attributes of not just one sign category but two or three. Letters and numbers are symbols: they bear no physical resemblance to their referents. Photographic portraits and smiley faces are both icons, but they have different levels of fidelity. A bathroom sign showing a woman in a dress is an icon (depicting the human figure), but it is also an index (pointing to a toilet facility).—Supisa Wattanasansanee

Icon. This sign resembles the object it represents. A drawing of a tree looks like a tree.

"TREE"

Symbol. A sign that has an abstract, arbitrary relationship to its referent is a symbol. The word "tree" does not look or sound like the physical specimen or mental idea of a tree.

Index. This type of sign points to its object rather than representing it directly. A piece of fruit is evidence of the larger tree from which it came.

Design: Supisa Wattanasansanee

Icon

"DOG"

Symbol

Index

Three Kinds of Signs

01 Icon. An icon uses shape, color, sound, texture, and other elements to make a recognizable connection to an idea or object. Although icons appear to be naturally linked to their referents, icons rely on cultural convention in varying degrees. Because of cultural custom, we recognize that a woman on a door indicates a toilet facility, even though nothing in the sign depicts toilets.

02 Symbol. A symbol is abstract. The most common symbols we use are the words of language. All human societies create linguistic symbols. The alphabet is another set of symbols, designed to represent language. Just as the spoken word "dog" has an abstract, arbitrary relationship to the mental concept of a domesticated canine, the letters d-o-g have an arbitrary relationship to the phonetic sounds they depict.

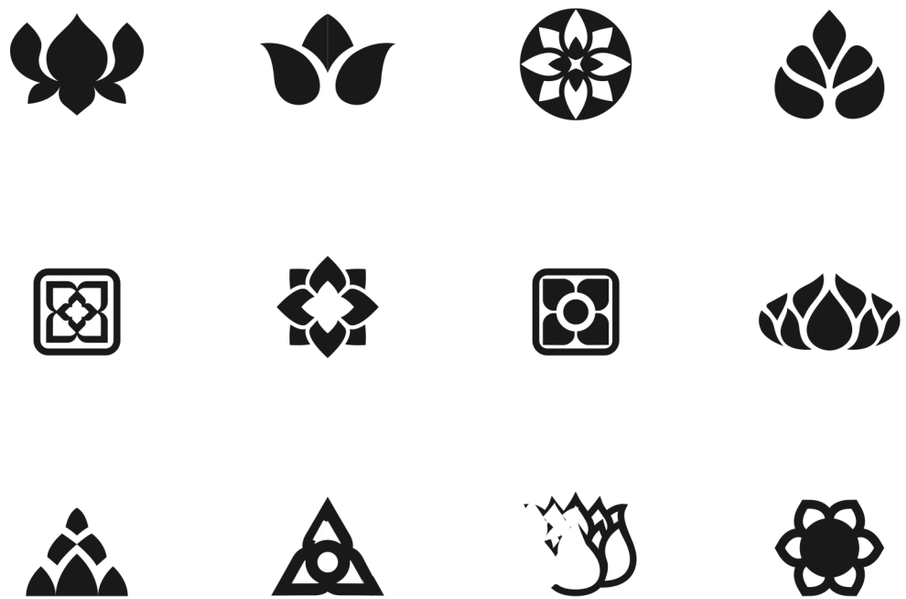
03 Index. An index points to its object rather than representing it abstractly or pictorially. The bark of a dog, the tinkle of its collar, or the smell of its poop indicates the creature's physical presence. Dog bones, dog dishes, and dog houses are familiar cultural objects that can be used to represent the dog itself. Most of the signs shown above are icons that depict indexical signs. "Woof!" is represented with symbols.

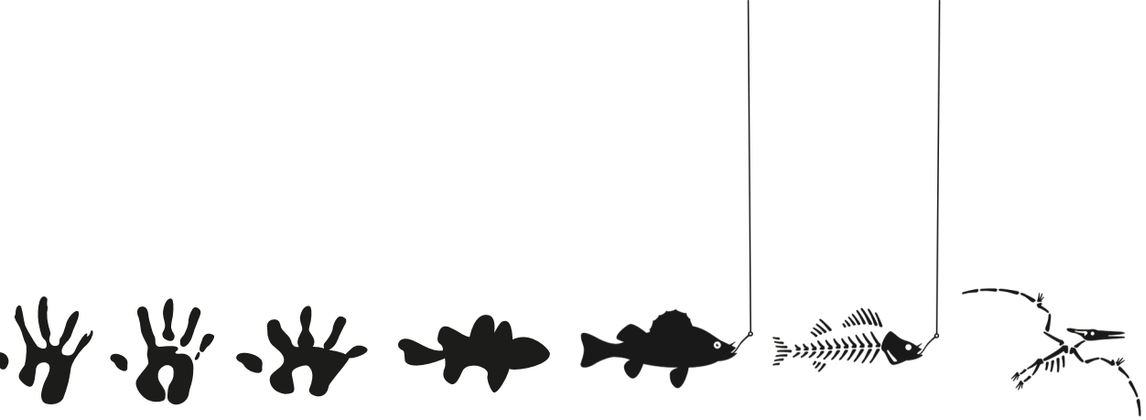
Design: Supisa Wattanasansanee for Cadson Demak Co., Ltd., Thailand. Buddha image © Fred de Noyelle / Godong/Corbis. Lotus image © Paulo Ferreira/istockphoto.

Case Study

Buddha Herbal Foundation of Thailand

Buddhist-Thai Herbs is a company bearing the distinguished seal of Thai Royal Patronage. The designer chose to represent the foundation with a lotus—a famous Thai herb as well as the primary flower of the Buddhist religion. In her sketches and design studies, she created decorative abstractions (symbols) of the lotus form as well as naturalistic images (icons). The final mark references several ideas at once—and several different types of sign. At first glance, the mark resembles a lotus flower, and thus functions as an icon. Simultaneously, its negative form resembles a tree and a leaf (combining icon and index). The positive form also resembles a meditating figure, offering another level of iconography as well as a symbol of Buddhism. The resulting mark is a compact, visually simple sign that conveys multiple layers of meaning.





Reinvent Mural. Shown here are icons from a seventy-five-foot mural installed in a public hallway. Design: Lauren P. Adams, Christina Beard, Chris McCampbell. Curator: Cathy Byrd, Maryland Art Place. Photography: Dan Myers.

Sandboxing

Have you ever seen a collaborative design project fall on its face? (From a thirty-story drop. Onto poison spikes.) Sometimes, designers let their individuality get in the way of teamwork. Effective collaboration yields something new, not a Frankensteinian mash up of separate parts. In a productive team, each member has ownership over some parts of the product, bringing a valuable set of perspectives and skills to the group, and yet each person is willing to merge individual ideas into the bigger structure. The aphorism "two brains are better than one" does not apply to two brains crammed inside one skull. Networks aren't ten hard drives thrown into one box, but rather ten different systems that share and communicate.

Working together often means playing. Humor, intelligence, and experimentation are integral to crafting engaging ideas. Sometimes, the best ideas evolve from conversations. Designers pride themselves on interacting with their clients, but designers also need to communicate well with each other. A satisfying collaboration is like building a super-fort out of Legos with your friends when everyone shares their bricks. The result should be different from what any one person expected.—Ryan Shelley and Wesley Stuckey

"C ollaborate. The space between people working together is filled with conflict, friction, strife, exhilaration, delight, and vast creative potential."
Bruce Mau

How to Sandbox

01 Sit together. Work at the same table so that ideas can develop in relation to each other. Skype and iChat don't count.

02 Hear and be heard. Nobody has the same experience and background as you; other team members are counting on your eye to help mold a unique outcome. Likewise, you will rely on them. In a school setting, students tend to work independently, while professional design studios tend rely on group participation.

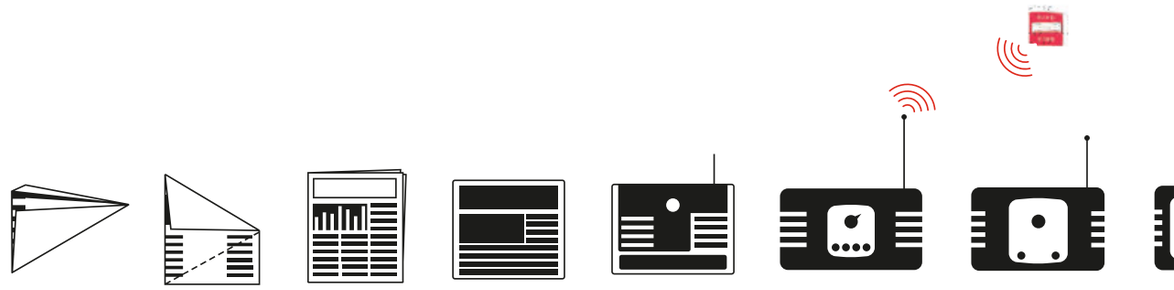
03 Identify leaders. Leadership can be both formal and informal. In corporate settings, groups tend to have an assigned leader. In the looser context of an activist collective or a student collaboration, leadership may come forward organically. Leaders help keep a project on track by distributing duties, representing the team, and prompting decisions when the process stalls. A large team may have several leaders; in a group of just two or three people, everyone could be a leader.

04 Play. But play nice. Everyone's goal should be the overall success of the project, regardless of who initiates various ideas along the way. Just like in a game, a little conflict and competition among players can be good for the process, but don't get stuck on protecting your own contribution. Focus on how a team can achieve more ambitious results than an individual working alone.

Case Study

Reinvent Mural

Maryland Art Place (MAP) commissioned a mural to enliven the long entrance hall connecting the street to the galleries. The result is Reinvent, a continuous sequence of morphing images that depict movement, communication, and the creative process as visitors walk down the hallway. The scale of the project required collaboration. Designers Christina Beard, Lauren P. Adams, and Chris McCampbell developed the initial concept and then implemented the idea, dividing up design and production tasks. The collaborative process hit occasional bumps, but none of the designers could have produced the work single-handedly.



One Thing Leads to Another. The team developed dozens of transformation ideas (such as plane/paper airplane/newspaper) and edited them together into a coherent sequence. The final mural consists of over fifty icons spanning a seventy-five foot wall. At first, the designers had trouble agreeing on a visual strategy. They explored many rendering styles, including photography, flat icons, and three-dimensional installations. In the end, they were able to combine all of these elements.

Sharing the Load. The team divided up the design of the individual icons but created guidelines that would unify the project. To integrate the piece with the building's interior, they applied a typographic pattern to the sides of each square column and incorporated physical features such as the fire alarm into the graphics. The last transformation in the mural is an exploded 3D circuit board representing what happens when the spark of an idea grows and develops.

On the principles of co-design, see Elizabeth B. -N. Sanders, "Postdesign and Participatory Culture," 1999, and "Generative Tools for Co-Designing," 2000. http://www.maketools.com/papers-3.html, accessed July 28, 2010.

Co-Design

Co-design or co-creation is an area of design research that engages end-users in the process of building a product, platform, publication, or environment. Designers today have learned that users are experts in their own domains. Designers now view themselves not as controlling an end result but as putting a process into play that actively involves an audience. Co-creation speaks to the rise of do-it-yourself design culture and an empowered consumer base that seeks to use products for new purposes.

Whereas interviews (see page XX) and focus groups (see page XX) are used primarily for defining problems and evaluating results, co-design is a generative technique that involves users and audiences in the creative act of making. Co-design emphasizes user experience—rather than the physical features of products or spaces—as design's ultimate result. Experience is where people find value in goods and services. Given the right tools, non-designers are well-equipped to envision experiences that will satisfy their needs and desires.

How does it work? In the methodology developed by co-design pioneer Elizabeth B. -N. Sanders, a design team provides a group of potential users with a kit of materials that prompts them to imagine their own solutions to a problem. Whether exploring a car, a phone, a software service, or a hospital room, the co-design process often involves graphic communication. Co-design kits typically include a blank, printed background and a set of materials such as images of generic controls, cut-paper elements, photographs, and tools for making drawings, maps, and collages. The kits often frame open-ended questions such as "What will your school look like in the future?" The design team studies these responses in search of insights and ideas that tap the emotional expectations of users.—Ellen Lupton

"T he new rules call for new tools. People want to express themselves and to participate directly and proactively in the design development process."
Elizabeth B. -N. Sanders

Nokia Open Studios. In the developing world, the adoption of mobile technologies is outpacing that of hard-wired computer and telephone systems. Designers from Nokia worked with communities living in informal settlements in Brazil, Ghana, and India. 220 co-designers envisioned "dream devices." The participant shown here, a hip hop dance teacher living in Favela Jacarezinho in Rio de Janeiro, Brazil, pictured a phone that would diminish violence in her community. Design team: Younghee Jung, Jan Chipchase, Indri Tulusan, Fumiko Ichikawa, and Tiel Attar, Nokia Corporation.

How to Co-Design

01 Identify co-designers to collaborate with. If your are creating a product for children, work with kids, teachers, and parents. If you are designing a healthcare solution, work with patients and healthcare providers. Some researchers suggest collaborating with extreme users: for example, work with people with disabilities, who experience barriers to product use, as well as experts such as fans, collectors, or repair technicians.

02 Define a question. Your research question should be both concrete and open-ended. Don't predetermine the solution. In place of asking participants to "Design a better countertop kitchen mixer," ask them to "Imagine an ideal kitchen environment."

03 Create a co-design kit.

Provide simple tools that invite participants of all skill-levels to engage actively and freely.

A co-design kit might include a variety of blank and printed stickers or set of inspiring words or questions. Co-design events can be planned for individual or group participation.

04 Listen and interpret.

Observe

how co-designers engage in the process and study the results of their work. Don't expect picture-perfect products. Instead, learn from people's hopes, desires, and fears.

Case Study

Design to Empower

One outcome of co-design is the creative experience itself. Designer Giselle Lewis-Archibald conducted a series of workshops with girls living at the Good Shepherd Center, a residential facility in Baltimore for young women experiencing emotional and behavioral difficulties. A workbook prompted the girls to express their influences, ideals, and hopes for the future. Exercises included drawing stickers featuring inspirational words and making a self-portrait from a hand tracing. These exercises culminated in making simple zines about themselves.

Kate

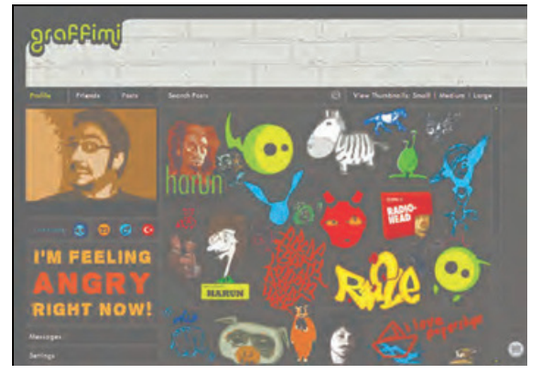
Giselle Lewis-Archibald

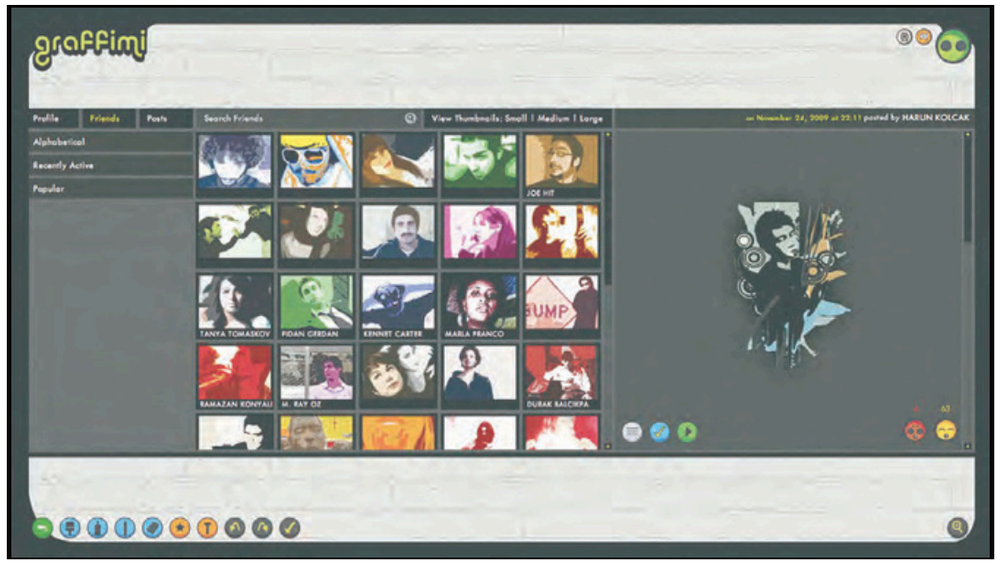
Sierra

Case Study

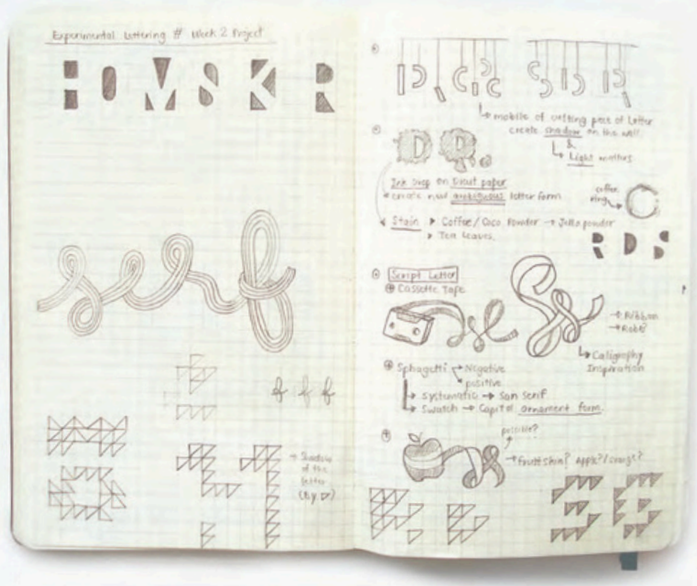
Graffimi

The proliferation of user-generated content on the Internet is another aspect of co-design. Graffimi is a virtual graffiti platform that supplies users with tools such as virtual spray paint, brush and stencils; users add their work to a live broadcasting wall that serves as a public canvas. This brick wall, which forms the background of the website, expands as it gets filled with submissions from users. Designer Baris Siniksaran created the digital arena; users supply the content that lives there.





Baris Siniksaran



Design: Supisa Wattanasansanee

A Month of Type. Designer Christopher Clark created a new typographic work each day for a month.

Visual Diary

There's only one salvation from the drought of a never-ending project: Break your routine and make something pretty. Designing something new every day can be as healthy for the creative mind as eating fruits and vegetables is for the body. Drawn-out projects stuffed with endless phases, revisions, and brainstorming sessions can rapidly degrade into over-cooked solutions and aimless theory. Sometimes a big spoonful of sweet, unrefined creation can be the perfect remedy for opening up a stubborn mental block. By making beautiful things every day, you can build a library of small and simple ideas that can blossom into ambitious projects later. Making something beautiful can be painless and fulfilling. Hydrate your mind with small pleasures reminiscent of the doodles and sketchbook pages that first got you excited about graphic design.—*Christopher Clark*

Do it every day.

How to Start a Visual Diary

01 Define parameters. How regular are the entries? Will you work in a journal or post online? Will there be a theme to your diary or will it roam untamed? Ask yourself questions. Experiment with new media and shelved ideas.

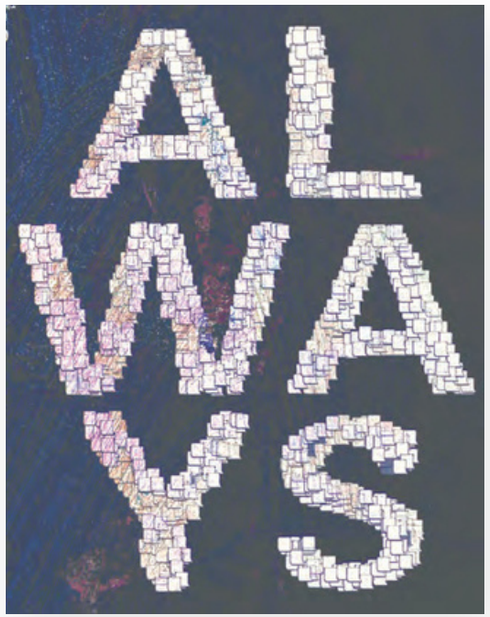
02 Stick to the rules. Big projects tend to dominate your schedule. Free yourself by dedicating a little time each day to making something. Fifteen minutes of unguided creativity could solve a month's worth of over-thinking.

03 Work in a series. If a certain media or method excites you, try it again the next day and the next. Make each entry a thoughtful follow-up to the last. That's how little things grow into bigger projects.

04 Share your work. Create a blog or Flickr account. Sign up for an exhibition at a coffee shop. Get friends and coworkers to join in on the noodling. Be inspired by the weight of an audience's gaze. (Of course, you don't have to show everything that you make).

05 Keep going. The more stuff you make, the more valuable the endeavor becomes. Build up a graphic arsenal. When the really tough problems declare war on your sanity, you will be prepared to defend yourself.

06 Harvest the good stuff. Glance through your journal when it's time to tackle bigger projects. You may have already found a useful solution or a viable idea.



Exploring the Everyday. Working with a different typeface every day encourages sampling and test-driving a variety of styles and media. Designer Christopher Clark started a blog in order to invent an audience. Eventually, the fictional audience became a real one. Starting with phrases he had scribbled in notebooks or saved on his cell phone, he created quick typographic studies.

Laus 2008: FAD (Foment de les Arts i el Disseny). This campaign for "Graphic Pride Day" promoted a major design festival in Laus, Spain. Design: Ferran Mitjans and Oriol Armengou, Toormix.

Lost in Translation

When faced with the task of designing a brand that works in multiple languages, designers often run into conflicting connotations or lost layers of meaning. Cross-cultural naming and branding is not an easy feat. The designers at Toormix, a design studio based in Barcelona, Spain, develop their branding and design work with at least two languages in mind, if not three: Spanish, Catalan, and English. They tackle variations in language by researching and testing the phrases that will appear in their work. This research is integral to their design process. Determining the name of a company or the primary text of a campaign is crucial to the success of any visual solution, and even more so for a cross-cultural audience. Toormix's strategies include steering away from colloquial phrases, avoiding overly salty language, and being wary of phrases imbued with strong cultural associations, which can easily get lost in translation.—Isabel Uria

"La dificultad del trabajo con tres idiomas con las características de este concepto está en saber ligar las frases."
Ferran Mitjans

How to Not Get Lost in Translation

01 Identify the languages and locales where your brand will circulate. Will it address a multilingual population that lives in the same region, or will it need to function in different parts of the world? Toormix used three languages in their posters for the Laus 200 design festival. The audience included speakers of Spanish, Catalan, and English.

02 Begin with the language most familiar to you. If you are a native English speaker, start with English. Avoid slang, colloquial expressions, and rhyming phrases, which may translate poorly.

04 Research translations. Use a dictionary, but always test your phrases with native speakers.

04 Where possible, use words or symbols that are shared between languages. In the poster below, the words "disseny," "deseño," and "design" have a common root and a similar meaning across the three languages. Toormix used the place name "Laus" and the date "08" as universal elements that don't require translation.

Case Study

The Dollar Store Museum

In a workshop led by Toormix, a group of designers were asked to create a basic logotype, tag line, and branding concept for a museum of low-cost everyday products. The brand had to make sense when translated from English to Spanish. Toormix helped evaluate the viability of each solution. While some would work well for both audiences, others are tough to translate.

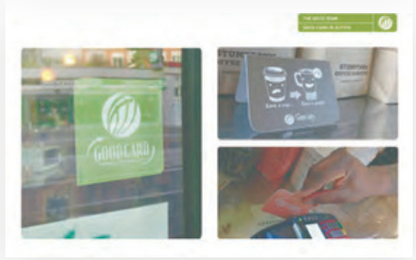
more/less. The phrase “more/ less” translates easily into Spanish (más/menos). The numeric symbol “99¢” doesn’t require translation at all. Design: Ann Liu and Supisa Wattanasansanee.

$ MUSEUM. The dollar sign does not translate to Europe’s currency. For use in Spain, the clever breaking of US and EU between the S form would have to be translated to EEUU and UE. Design: Ryan Shelley.

Cheap Sh*t. The direct Spanish translation of the phrase “cheap shit” (mierda barata) is more aggressively vulgar in Spanish. Curse words can be problematic in multiple languages. Design: Wesley Stuckey.

Cheapo. In English, this list of fabricated slang words makes an engaging play with language, but the slang phrases don’t translate well into Spanish. Design: Elizabeth Anne Herrmann.

MU$EUM. The words “museum” and “museo” accommodate both the dollar and Euro symbols, making this design a successful bilingual, cross-cultural solution. Design: Ryan Shelley.



Good Card is a concept for a rewards program that invites consumers to earn points for bringing reusable mugs to participating coffee shops. The card is not brand-specific, allowing independent businesses to participate. The slides state the problem, present mock-ups of the website and card, and narrate the product in use. Design: Shena Bannick, Razi Bhatti, Jason Hakala, Conor Kelly, SuGing Ngouv, and Heather Nicewonger.

Concept Presentations

Filmmakers, animators, cartoonists, and writers use storyboards to plot out narratives. Graphic designers employ sequential screen-based presentations to develop and explain concepts. Presentations are a tool both for thinking and communicating. When creating websites, product concepts, mobile apps, branding campaigns, and other complex projects, designers use schematic presentations to test and communicate ideas in development. Such presentations typically include text as well as visualizations. Digital presentations can be projected in a meeting, printed on paper, or distributed online. Slide presentations are often submitted for competitions as well, explaining ideas quickly and compactly to a jury. Presentations are an invaluable tool for quickly fleshing out complex concepts.—Ellen Lupton

For detailed instructions on developing concept presentations, see BJ Fogg, "Conceptual Designs: The Fastest Way to Communicate and Share Your Ideas," Design Research: Methods and Perspectives, ed. Brenda Laurel (Cambridge: MIT Press, 2003), pp201–11.

How to Make a Concept Presentation

01 Choose a format. Powerpoint, Keynote, and Adobe PDF presentations are easy to email, post online, or print out as well as to project on a screen.

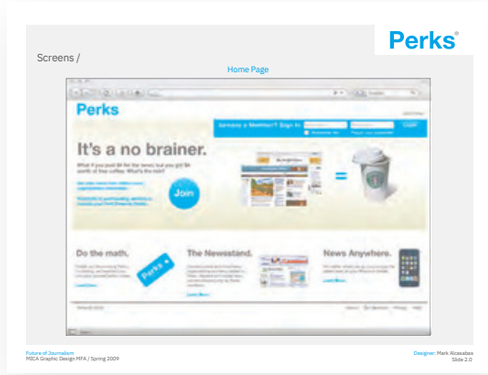
02 Make an outline. Interface designer BJ Fogg suggests setting up a simple template with sections such as Title, Overview, Challenge, Prototype Views, Solution, Benefits, and Drawbacks.

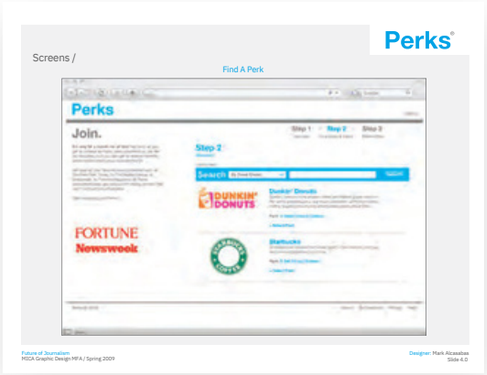
03 Fill in the blanks. Use your template as a prompt for quickly fleshing out a concept. Include a header on each page identifying the project, company, or team.

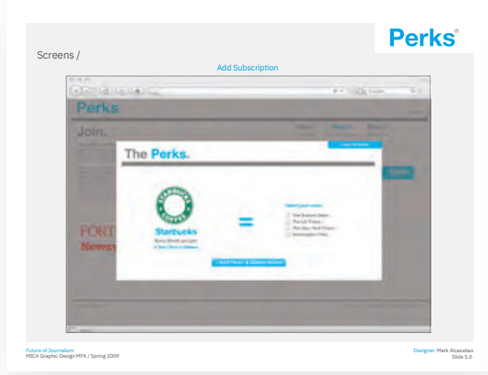
03 Keep it simple. Sometimes, imagery that is deliberately simple and sketchy helps keep your audience focused on ideas rather than on a finished product. Use storyboards and photographs to demonstrate products in use. Make your text concise, direct, and consistent.

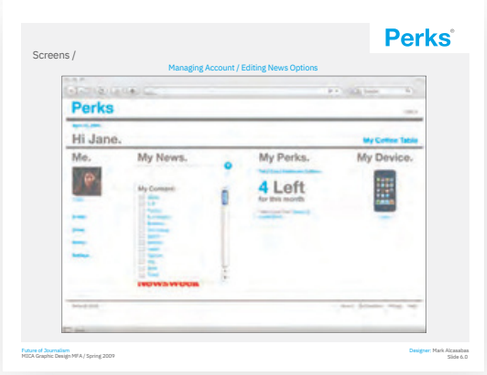
Future Journalism. Interaction designers use schematic screen captures to illustrate product features and narrate typical user interactions before building out functional prototypes. Diagrams and problem statements help designers deliver ideas clearly. This proposal for an online news service provides readers with a subscription that grants access to content from dozens or more news agencies. Subscription revenue would be divided among providers according to how much readers use each service. Keeping track of personal news use becomes interesting data for users as well. Design: Molly Hawthorne.

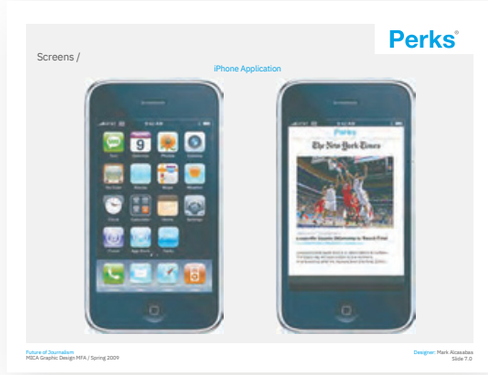
Energy-Harvesting Speed Table. Prepared for submission to a design competition, this proposal explains the concept of a speed bump that would collect energy as cars drive over it. Three compact slides serve to explain how the system would works. The designers used diagrams, illustrations, plans, and a an exploded 3D view to communicate their concept. Design: Amy Cook and Nicholas Henninger, Auburn University School of Architecture. Advisor: Sheri Schumacher.











Tangible Rewards. Service design involves planning how elements will work in a variety of media and situations. This concept presentation describes a new way for news organizations to generate advertising revenue. In the traditional advertising model, pricing is based on a campaign's number of views or impressions. Advertisers today, however, seek measurable responses from viewers. The Perks concept would rewards readers with coupons from advertisers, creating a direct and positive interaction. The presentation shows how users would join and use the service. Design: Mark Alcasabas.

03

How to Create Form

After a period of open-ended research and free thinking, designers hone in on one or more concepts to develop more fully. A wealth of ideas is a great thing, but only a few concepts will make it across the finish line. After selecting the most promising ideas, designers express them visually. When an idea becomes tangible, now it can be evaluated. How does it work? How does it communicate? What does it mean? The answers often send designers back to the initial phases of ideation.

While research and concept development clarify the direction, goals, and underlying ideas that will drive a possible solution, executing the idea remains a crucial task. For many designers, this is the most exciting part of the work and the true test of their abilities. Although some firms focus solely on defining problems and determining strategies, leaving implementation to others, most designers are fascinated with how concepts come to life in physical objects, visible images, or usable, working systems.

Indeed, some designers see creating form as the essence of what they do. Creating form need not happen at the end of the design process. Bringing shapes, colors, surfaces, and materials to life can precede the conceptual phases that are the traditional foundation of the design process. Concepts can be discovered from the detritus of open-ended form-making.

Preliminary research and analysis comes to naught when concepts are executed in a dull or clumsy fashion. Two designers will interpret a single creative concept—no matter how carefully it has been detailed—in distinctly different ways. Just as deliberate techniques can guide the planning and inception of a project, so too they can inform the processes of visual invention. Conscious techniques such as brainstorming and mind mapping can free the mind to discover and invent; likewise, strategies for thinking and making can provide tools or a frame of mind that will help bring pleasure, delight, and illumination to users.

Sprinting

Designers sometimes get stuck in routine ways of working: set it flush, add some white space, put a box around it, whatever. When seeking more creative approaches, designers can become paralyzed by the range of choices and possibilities. Try giving yourself less time to think and more time to act. Sprinting is a technique for breaking out of your own habits by forcing yourself to come up with a new visual solution in a fixed time frame and then moving on quickly to try something else. Sprinting generates visual directions in short spurts of time. When the time investment is short, designers often feel more comfortable taking risks and trying alternative approaches. Each concept becomes less precious and easier to explore and then discard. Sprinting works well with a defined set of parameters and a thirty-minute deadline. Sprints can be scheduled like meetings or calendar events. Be sure to leave gaps between them—each one will leave you exhausted.—Krissi Xenakis

"N ine-tenths of wisdom is being wise in time."
Theodore Roosevelt

Quick Picks. Lay out your designs on a table and get friends or colleagues to help edit and sort them. Design: Krissi Xenakis.

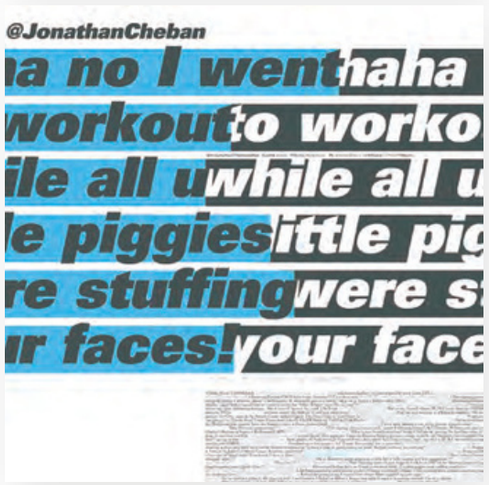
How to Sprint

01 Set parameters. Define some ground rules, such as a limited range of typefaces and a fixed set of layout elements. You might also create a few sets of rules and rotate them among your sprints.

02 Warm up. Five minutes of speed reading (look at inspiring books) or loose sketching (no computer) will help you get in the mood. Don't count the warm-up in your thirty-minute sprint.

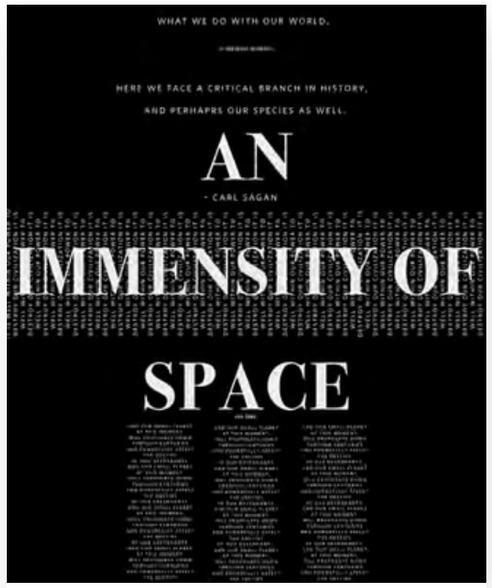
03 Plunge in. Try new ways of working. Ward off brain mush by spacing your sprints throughout the day. Work fast and have fun.

04 Decision time. When you have generated a body of work, print out small versions of your sprints so it is easier to compare and edit them. A good edit should pare away around 75 percent of the work. So, if what you need is one poster or layout, try sprinting at least four times.



Twitter Typography Series. For content, these posters use tweets gathered October 13-15, 2009, from that period's five most heavily subscribed Twitter feeds. In order to experiment with typography in a quick, immediate way, the designer created 100 posters in a series of 30-minute design sprints. She chose 25 designs to print and display. Design: Krissi Xenakis.

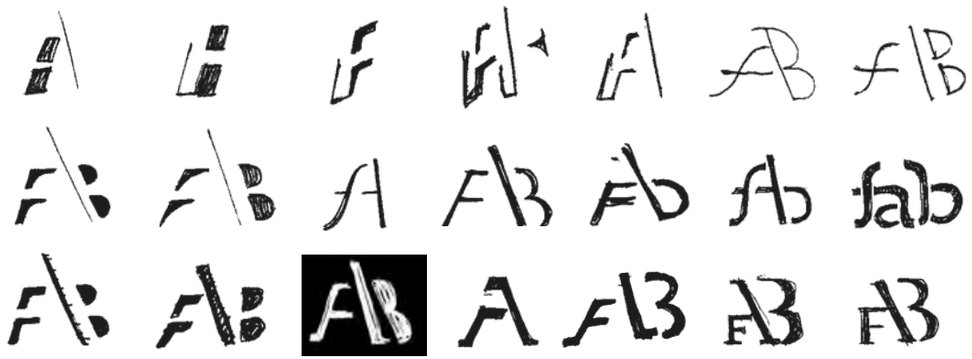
Mars Book Sprints. Here, the designer used sprinting to generate multiple typographic concepts for a book design. Her parameters included using variations of a centered grid, using only black and white, and using only the typefaces HTF Whitney and Bodoni. The text is a quote by Carl Sagan. The designer created a dozen poster variations. Design: Christina Beard.



Case Study
Newspaper Layout

Newspapers, magazines, and other formatted publications have style guides that serve as ready-made parameters for successful sprinting. Working with established elements such as headlines, decks, photographs, captions, and body text, the designer can focus on arranging the elements in a series of quick takes, exploring structured uses of the page grid as well as more relaxed or imaginatively framed solutions. The layouts shown here feature editorial content from i, a Portuguese daily newspaper (ionline.pt). The designers used 30-minute sprints to develop each layout.

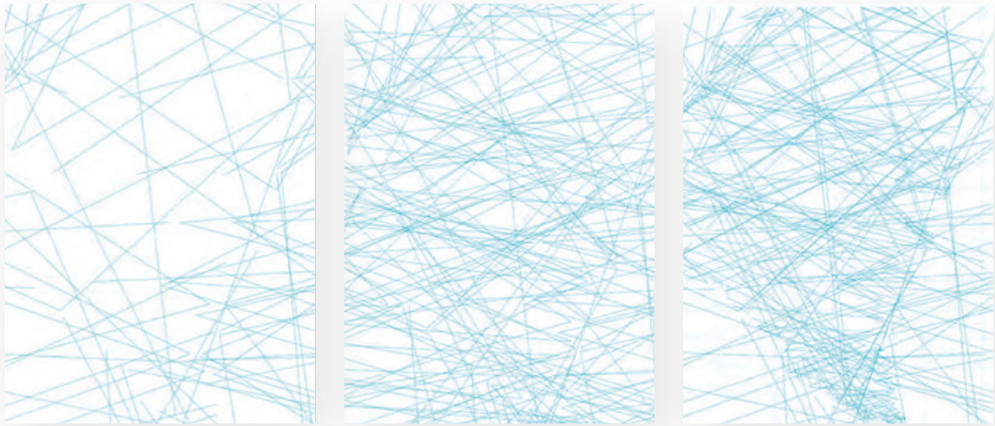
Planespotters. Text: Joana Azevedo Viana. Photographs: Dora Nogueira. Design: Katarzyna Komenda and Krissi Xenakis. Editorial content © ionline.pt.



Case Study

FAB Logo

Sprinting is a valuable technique for developing logo designs. Shown here are multiple studies for a symbol representing Fashion Architecture and Basic Design, or FAB, a new high school in Baltimore. Designer Supisa Wattanasansanee created a series of initial sketches and then chose a few basic directions to pursue. She worked quickly to generate variations of each core concept. She was able to develop several ideas in depth without getting bogged down in the final details. She primarily employed Illustrator software but she also stopped to make new pencil sketches on top of printouts of work in progress.



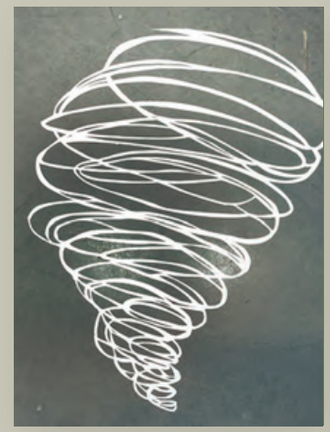
Populating a grid. By laying down a series of lines based on a photo of a cut paper tornado, the designer created the grid by outlining a basic armature. Additional grid lines were added to allow for typography and object placement. Design: Ann Liu.

Alternative Grids

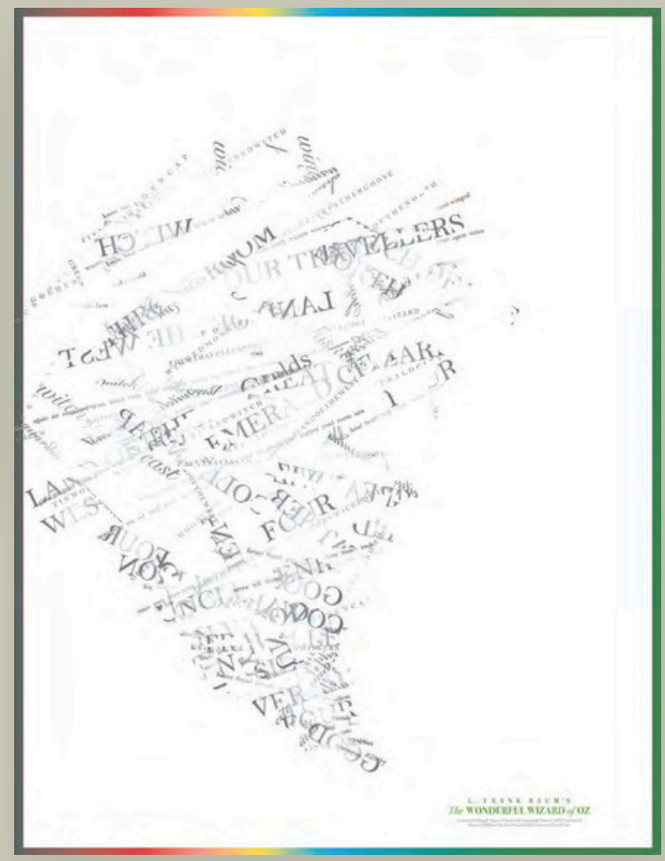
Graphic designers use grids to structure and organize information. In a newspaper, magazine, website, or blog—even in this book—column grids help create a cohesive look and feel. A single publication might employ different numbers of columns from page to page or screen to screen, but the underlying modules are consistent. Sometimes designers break the grid purposefully, but the grid serves to guide most decisions about scale and placement.

On the other hand, alternative grids can open the parameters of design into a more experimental realm. They enable designers to explore new ways of arranging content. Designed with different shapes and angles, alternative grids don't follow strict horizontal or vertical lines. They can be developed by looking at everyday objects and images or by creating patterns or textures out of the information being delivered. Rather than create an efficient process with legible results, as in the case of newspapers, alternative grids serve to explore the formal possibilities of layout and typography.—Isabel Uria

For a collection of pattern-based grids, see Carsten Nicolai, Grid Index (Die Gestalten Verlag, 2009).



Tornado Poster. Aiming for the illusion of depth, the designer used gradients on angled lines of type that sat on various grid lines within the tornado. The rainbow border was put in as a nod to the Wonderful Wizard of Oz old technicolor film. Design: Ann Liu.



How to Design Alternative Grids

01 Observe. Designers create patterns and grids out of endless sources, including the natural and industrial worlds. Cityscapes, architecture, trees, animals, weather patterns, and rock formations are among the endless possibilities. Explore the environment around you or look at works of art and design.

02 Replicate. Take a photograph or make a quick sketch of forms that catch your attention. Later, look for linear structures in the image. To create the experimental poster below, designer Ann Liu sketched a tornado. She then abstracted the sketch into a network of overlapping lines that cover the entire surface of the page.

03 Organize. Begin arranging typography and other elements in response to the underlying pattern of the grid. In addition to using the lines to guide the placement of elements, you can use them to cut, crop, distort, and overlap. The grid becomes a tool for open-ended play rather than rational construction.

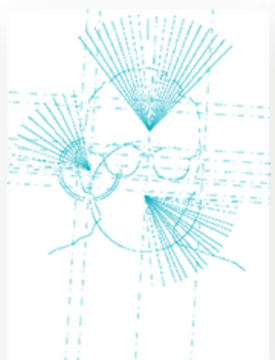
Case Study

Amazon Posters

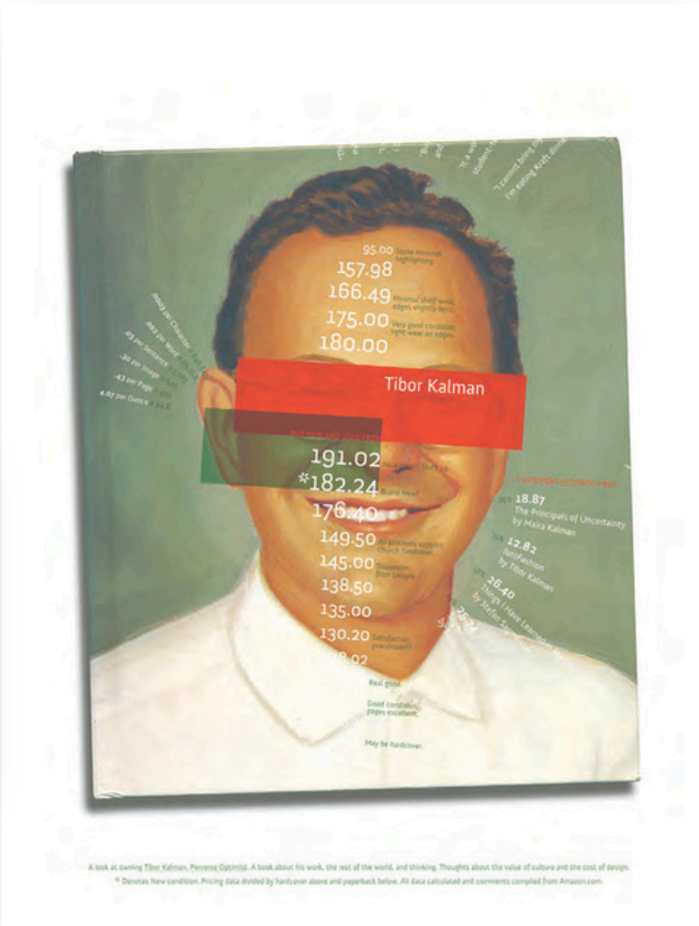
These typographic studies harvest text and data from Amazon pages about specific books. The designers used alternative grids to structure this found information.

A View from the Top. The designer used a map to structure text about Middlesex, by Jeffrey Eugenides. Design: Krissi Xenakis.

“ All visual information and forms, whether illustration, graphic design, painting or architecture are compromised of two-dimensional grids and patterns, much like the way that computer information is made up of zeroes and ones.” Carsten Nicolai

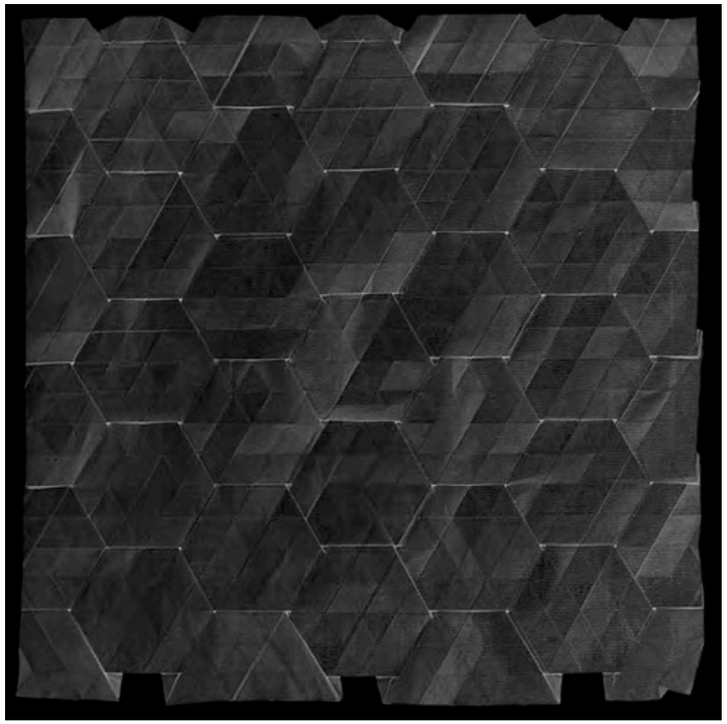


Face Grid. This poster about Tibor Kalman’s classic monograph Perverse Optimism uses a grid derived from facial features. Design: Chris McCampbell.

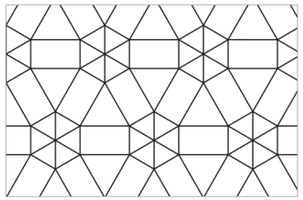


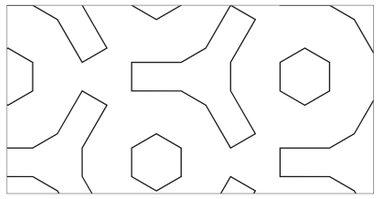
Case Study
Tessellated Grids

A tessellation is a pattern of shapes covering a plane with no overlaps or gaps. Tessellations commonly appear in tile work and decorative art. The lines in a tessellated pattern can inspire multiple grids and patterns.



Folded Paper Tessellation. This complex pleated paper design uses a geometric grid. Like all of the patterns illustrated on this spread, this pattern is a variation of interlocking triangles. Original folded paper design: Eric Gjerde. Paper folding and photography: Isabel Uria.





Variations from a Tessellation. Numerous geometric patterns can be derived from one structure. Design: Isabel Uria.

Working the Angles. A triangular grid underlies this large-scale graphic memory banner. Small base triangles combine to form larger shapes. Fill colors alternate to create depth. Design: Molly Hawthorne.

Walker Art Center Identity.
Design director: Andrew Blauvelt.

Kit of Parts

Designer Andrew Blauvelt uses the term “kit of parts” to refer to his systems-based design methodology. In creating a new identity for the Walker Art Center in Minneapolis, Blauvelt and his design team constructed an open-ended system rather than a static logotype. They devised a series of ornamental marks that are accessed digitally like a typeface, in combination with written text. The diverse patterns reflect the Walker’s diverse program. The Walker design team can produce endless variations of the system by combining existing elements; they can also add new patterns as needed, creating a living visual brand. Designers can use this way of thinking in many situations to develop series of genetically related forms.—Ellen Lupton

“ The nature of design itself has broadened from giving form to discrete objects to the creation of systems: designs for making designs.”
Andrew Blauvelt

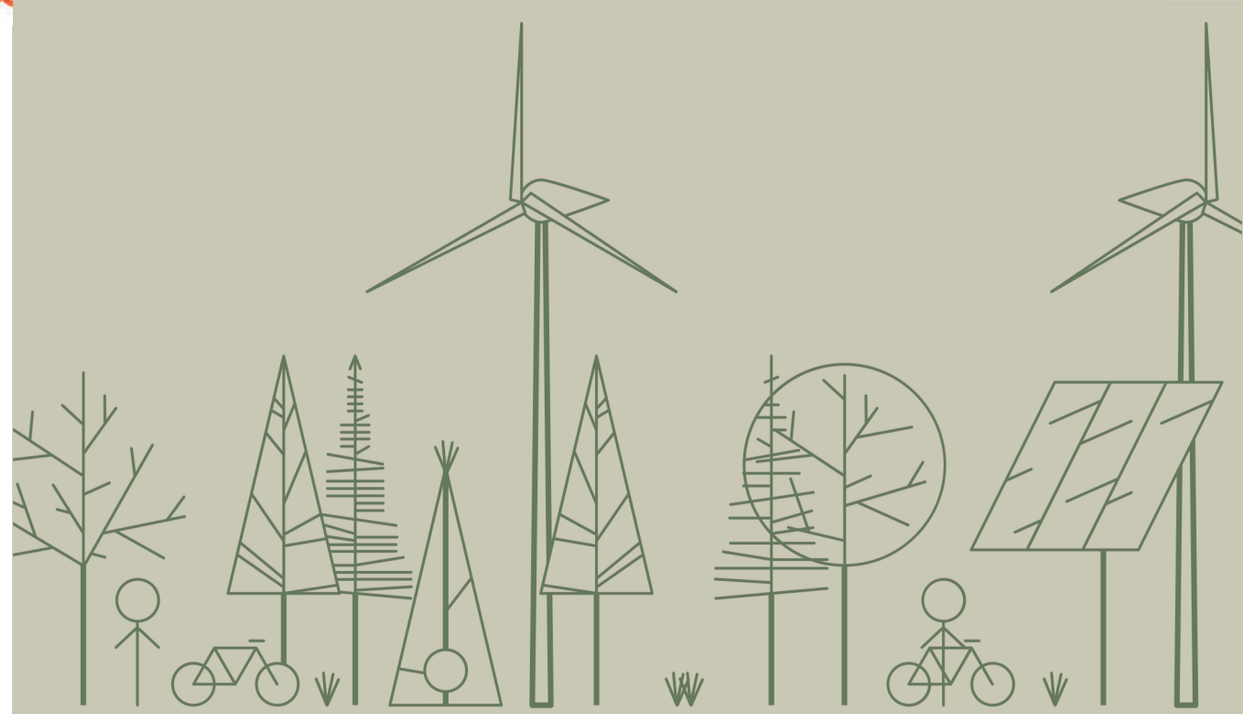
How to Design a Kit of Parts

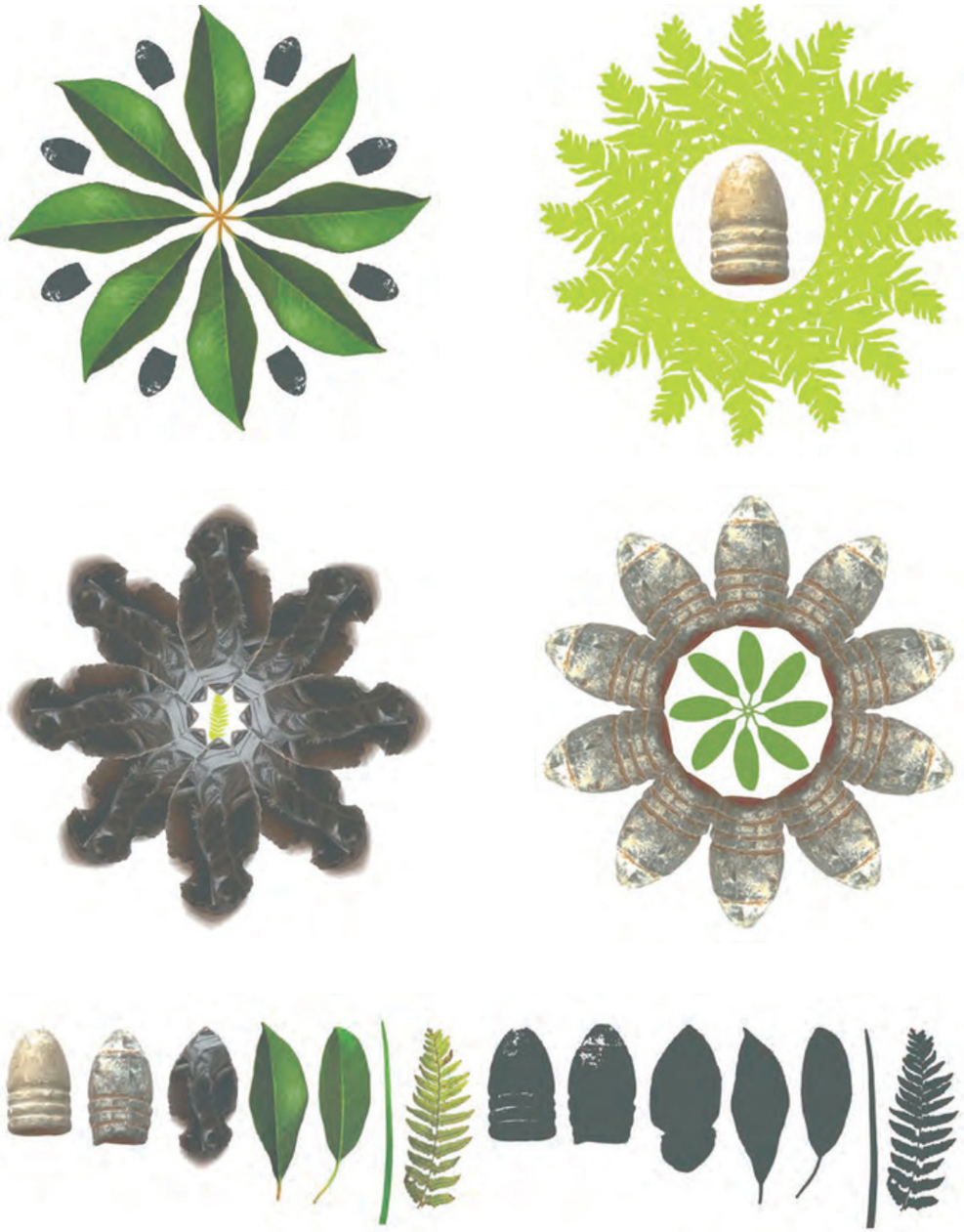
01 Create your parts. The first step is to create the kit. Elements can be built, drawn, or photographed by the designer, or they can be sampled from the existing culture. Designer Kristian Bjornard wanted to compile images of sustainable landscapes using a small number of elements.

02 Reconfigure. Determine how to combine your elements. Bjornard found that he could describe different types of trees as well as diverse modes of technology with his elements. He used a simple vocabulary of parts to generate a richly varied syntax.

Line weights

Shapes





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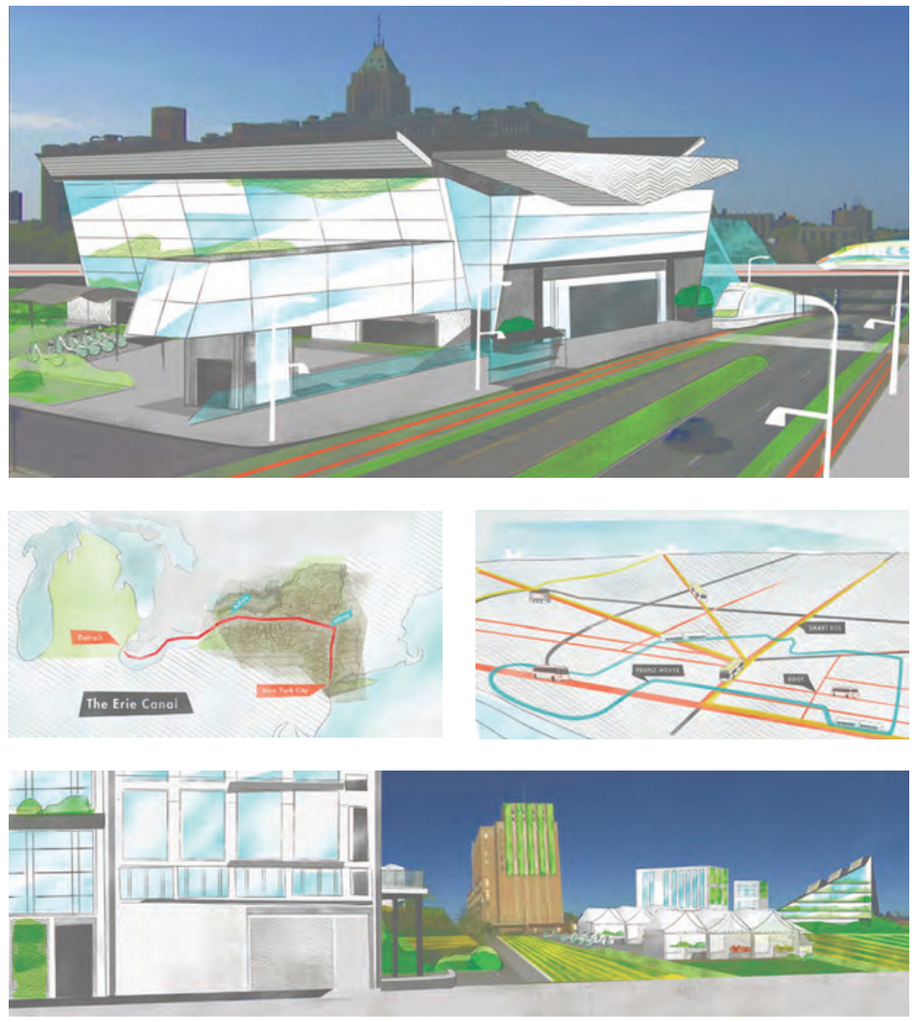
Bullets and Leaves. To create these elegant yet sinister images, the designer rendered leaves, bullets, and arrow heads both as high-contrast silhouettes and as full-color tonal images. She made the floral shapes by rotating and repeating the elements. Design: Virginia Sasser.

Letters and Icons. The kit of parts consists of a complete square plus a square sliced into two pieces by a circle. The designer created a relatively complex alphabet from these simple pieces. He went on to create icons of people and animals as well as flat patterns. Design: Aaron Walser.

Case Study
Detroit Animation

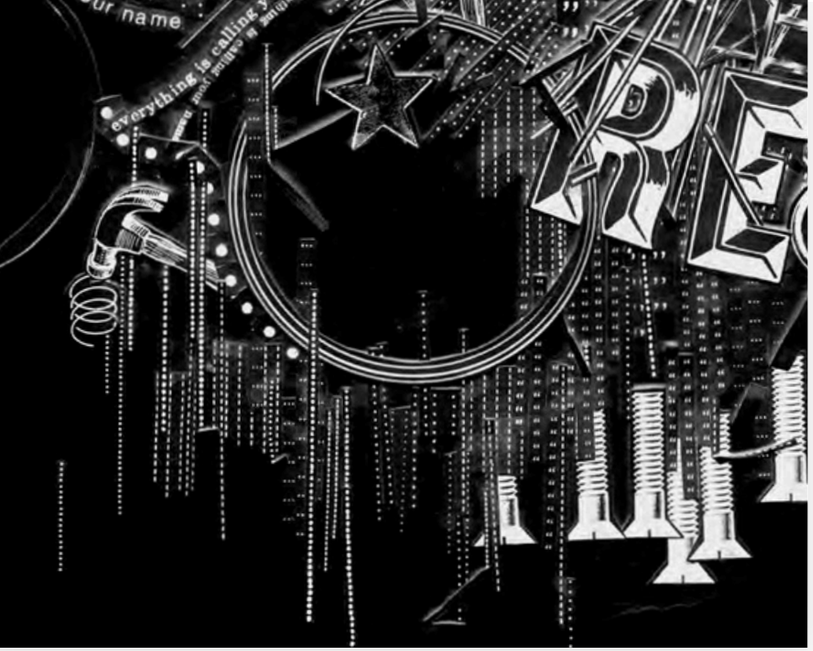
To create complex animations, the designers at the multimedia studio HUSH create toolkits of visual assets that are used by the team to assemble motion sequences. The toolkit consists of a palette of colors, textures, and illustration components.



Title of Piece Here. For a PBS documentary about the evolution of Detroit, HUSH was asked to create animations showing how the city might look in the future. They combined photographic images of existing buildings with drawings. The idea was to create a clear break between the current reality and the proposed future, conveying an optimistic tone. HUSH design credits to come here. Get hi-res images from HUSH. HUSH design credits to come here.

Brand Languages

Brand Languages, cont.



Martin Venezky documents his creative process in his book It is Beautiful—and Then Gone (New York: Princeton Architectural Press, 2007).

Tulane School of Architecture. The designer created layers of cut paper and he photographed the effects of glare to create the rich surface of this poster. Design: Martin Venezky.

Physical Thinking

Designer Martin Venezky creates graphic form by experimenting with the physical properties of materials. This process helps him step away from the computer and produce imagery and typography imbued with depth, imperfection, and accidental qualities. How does a piece of paper wrap around an object? What happens when a length of string falls to the ground? Slowing down the design process and observing physical forms can help designers learn from the nuances of space, light, and texture. Venezky uses this method to make unexpected connections between form and content. During the initial phases of his work, he experiments with physical materials, taking his time to develop concepts through process, instead of letting the concept drive the process. He allows surfaces and structures to speak to the content on their own. By letting the material work for him, he slowly builds the character of each project.—Chris McCampbell

"L earn to detect glimmers of hope among the debris of failure."
Martin Venezky

How to Think Physically

01 Draw. Starting with some kind of source material (a photograph, a piece of text), explore lines, shapes, and their relationships with each other. Pick out what catches your eye and make new connections. Don't worry about color yet. Don't try to make clever connections to content. It's okay to be abstract. Be critical of what is working visually and what is not. Experiment in several directions; if something is not working, try something else.

02 Build. Experiment by turning your drawing into three dimensions by working with paper, cardboard, foil, mesh, or any other available materials. Look for materials and objects around you, in the next room, or across the street. Ignore nothing, as anything can become inspiration. Study the form of your inspiration and try to realize how it can relate to your drawing. Place pieces together to create interesting patterns, textures, or shapes. Allow things to fall or rearrange themselves. Be accepting of collisions and haphazard groupings.

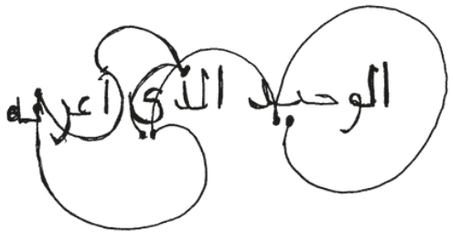
03 Photograph. Explore your creation through the lens of a camera. What can some elements say individually? What does the piece say from different angles? Study light and shadow, and observe what changes. When you come in close, the scale of the material can change and become more abstract and universal.

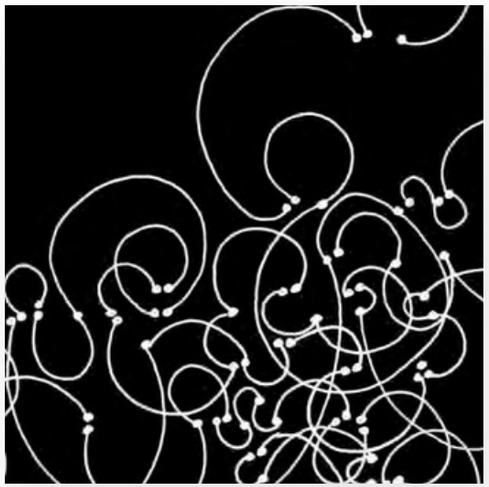
04 Conceptualize. Begin to bring content and meaning into your studies. How can the form now communicate meaning? Add pieces that may help to translate this. Start playing with color as well.

05 Refine. Bring your elements together into a whole. Think of where you can place and blend elements together.

Case Study

2D to 3D Poetry Poster





In a weekend workshop for graduate students, Martin Venezky handed out poems written in international scripts; he challenged the designers to respond to the poems without knowing their translation or meaning. The first step was to create drawings inspired by the form of the scripts. Next, the designers translated their drawings into 3D objects made from everyday materials such as paper, cardboard, and foil.

In the example shown here, designer Chris McCampbell pinned thin strips of paper to the wall to create looping lines in space, inspired by the ribbon-like forms of Arabic calligraphy. He then photographed the objects. Finally, he created a poster that incorporates lines from the translated poem. Following this unusual creative path yielded unexpected results.

Take the Matter Outside

Complaining is Silly. Stefan Sagmeister mobilized environmental forces to create this billboard in Lisbon, Portugal. He let stencils sit on top of newsprint of his roof in New York City. The exposed areas of newsprint yellowed in the sun. As more sunlight hit the billboard, the message faded.

Blow off the cobwebs. If your work feels stagnant and stale, try introducing it to the physical effects of your environment. This technique encourages exploration of cities, suburbs, rural pastoral farmland, your own backyard, or any setting in between. Design that works often carries a sense of belonging and a sense of context. Consider ways to find, implement, and test the relationship of your medium-of-choice to the great outdoors. Formulate scenarios, arrange encounters, conduct experiments, or search haphazardly. How can you redirect the medium by following and/or breaking laws of nature? Consider the idea that you are no longer design's superior natural selector but have allowed ecological interactions to occur collaboratively. The natural environment provides an accessible and universally available tool for generating authenticity. Basing design thinking on visceral encounters helps you "keep it real" in an otherwise digital world.—Elizabeth Anne Herrmann

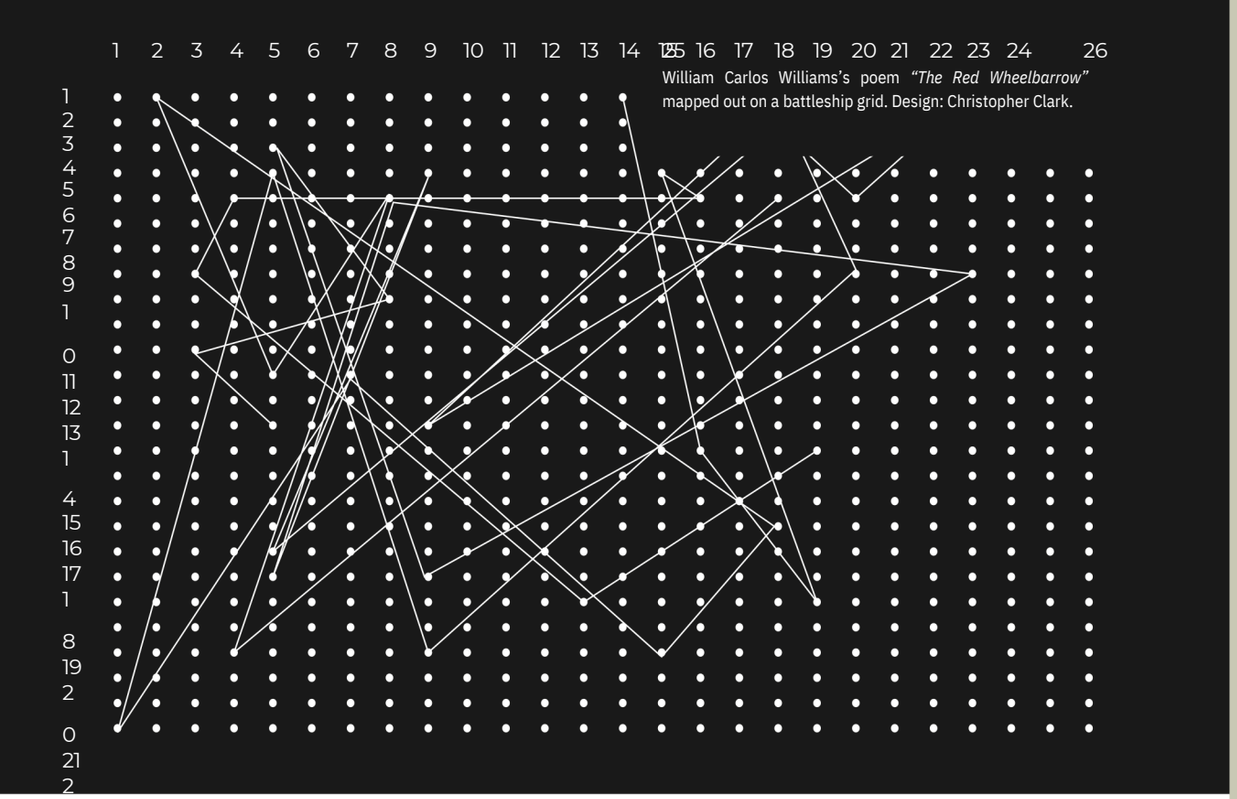
How to Take the Matter Outside

01 Texture. Ask yourself about the physical qualities of printed media, from the support (paper, wood, Plexiglas, cardboard) to the manner in which it is marked (inks, relief, die cuts, stickers, cut vinyl). What happens when these elements encounter a different physical environment? Consider texture as a means of decomposition. Use texture to add character to printed, digital, and motion-based work.

02 Climate Catalysts. Use weather conditions to catalyze change in your ingredients. Rain, wind, slush, ice, humidity, or a sweltering sun offer possibilities of entropic design by natural processes. Observe naturally occurring relationships and sequences. How do plants and animals instinctually transform under changing conditions? Observe the physical effects of time, climate, and pollution on surfaces found outside. Vinyl, a cheap and commonly used signage material, doesn't fare well outdoors for long periods of time. You can view this as a detriment or appreciate its disturbing beauty.

03 Projection. For motion graphics, try playing your clips outside. Study the effects of combining other sources of natural and man-made light with yours. What happens when a video sequence is viewed on unexpected surfaces, textures, intersecting planes, or odd angles and distances? What happens when you remake the piece in the venue where it originated? Try projecting a video sequence or photograph in the same place where the material was initially recorded—and shoot it again. Explore how the medium and content of your design reconfigure through its environment.

Climate Studies. Feel the a-peel. Let the climate do the work. Observe how surfaces rust over time. Look at how salt and grime smog up a windshield. Peer into a gutter to see your own reflection after a rainstorm. Experiment with how climate can change your own work in progress. Piece together new compositions from images of an environment breaking down. Photography and design: Elizabeth Anne Herrmann.



William Carlos Williams's poem *"The Red Wheelbarrow"* mapped out on a battleship grid. Design: Christopher Clark.

Unconventional Tools

Designers often put their ideas to paper in ways that feel comfortable and familiar: usually with pen, pencil, or computer. Standard tools often produce standard results. The most efficient mode of producing ideas may not stimulate new approaches. Using different tools is a way to inhibit the way we render our concepts—with results that may be less constrained by our own expectations. The complex personalities of tools can push your ideas beyond the ordinary. Brittle materials like tape and wire will resist your hand and add their own voice to a drawing. A peeled potato is a harmony of organic and geometric form. Deflated balloons have a beautiful sadness. Like physics or chemistry, good design can synthesize perfect ideas with the imperfect world they live in. —Christopher Clark

Draw it like you're messed up.

How to Use Unconventional Tools

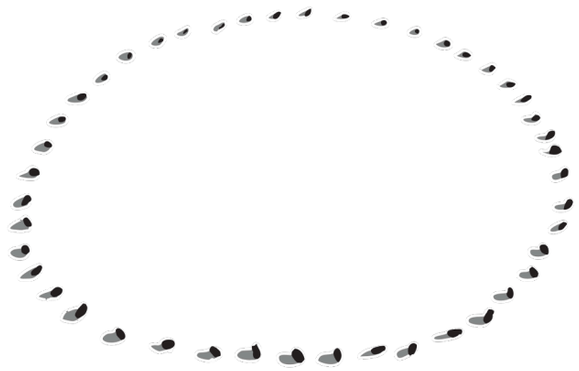
01 Decide what forms you want to create. A logo might call for a circle or square. A layout might need typography that is rough and naive. Perhaps a poster requires something that looks vaguely like a keyboard or the head of Marilyn Monroe. Keep your concept phase simple. The wonder of materials is their ability to pick up our mental slack.

02 Put down your pencil and step away from the computer (unless you plan to operate the mouse with your foot).

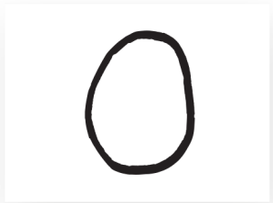
03 Find some marking tools. Try a stick from the backyard and some India ink or a hammer dipped in paint. Think of these components abstractly. For example, your marking tool might be a Battleship game board fixed with a data sheet of coordinates. After you've done it once, do it again. Put yourself at the mercy of your tools.

04 Choose wisely. Once you've tried different materials, choose drawings that balance form and function, beauty and clarity.

05 Make it graphic. Use your drawings to make marks suitable for communication. Translate your work into a medium of reproduction. You might plot your Battleship points in Illustrator, or adjust your stick drawings in Photoshop.



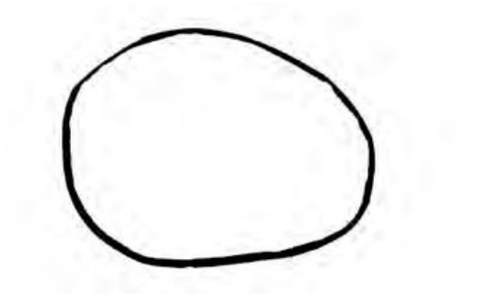
Heartland Eggs

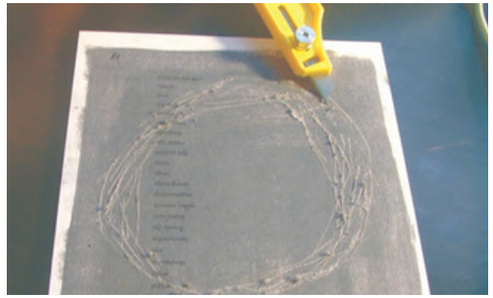


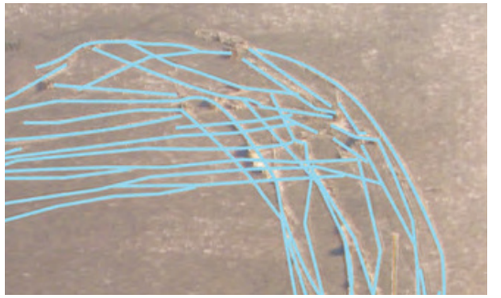
Case Study

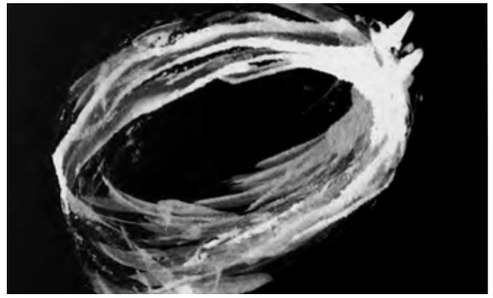
Heartland Eggs

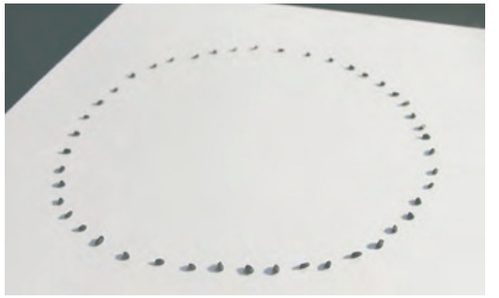
In this logo study for a fictional egg farmer, designer Christopher Clark employed unusual drawing processes to invent new forms, breathing an unpredictable sensibility into applied design work. His exploratory drawing process yielded a series of simple, spontaneous marks. His drawing instruments include a hammer and ink, acrylic paint and a box cutter, a camera and furniture, white tape on a studio floor, and basil seeds and paper. Clark chose the last experiment for its organic shape and subtle dimensionality.







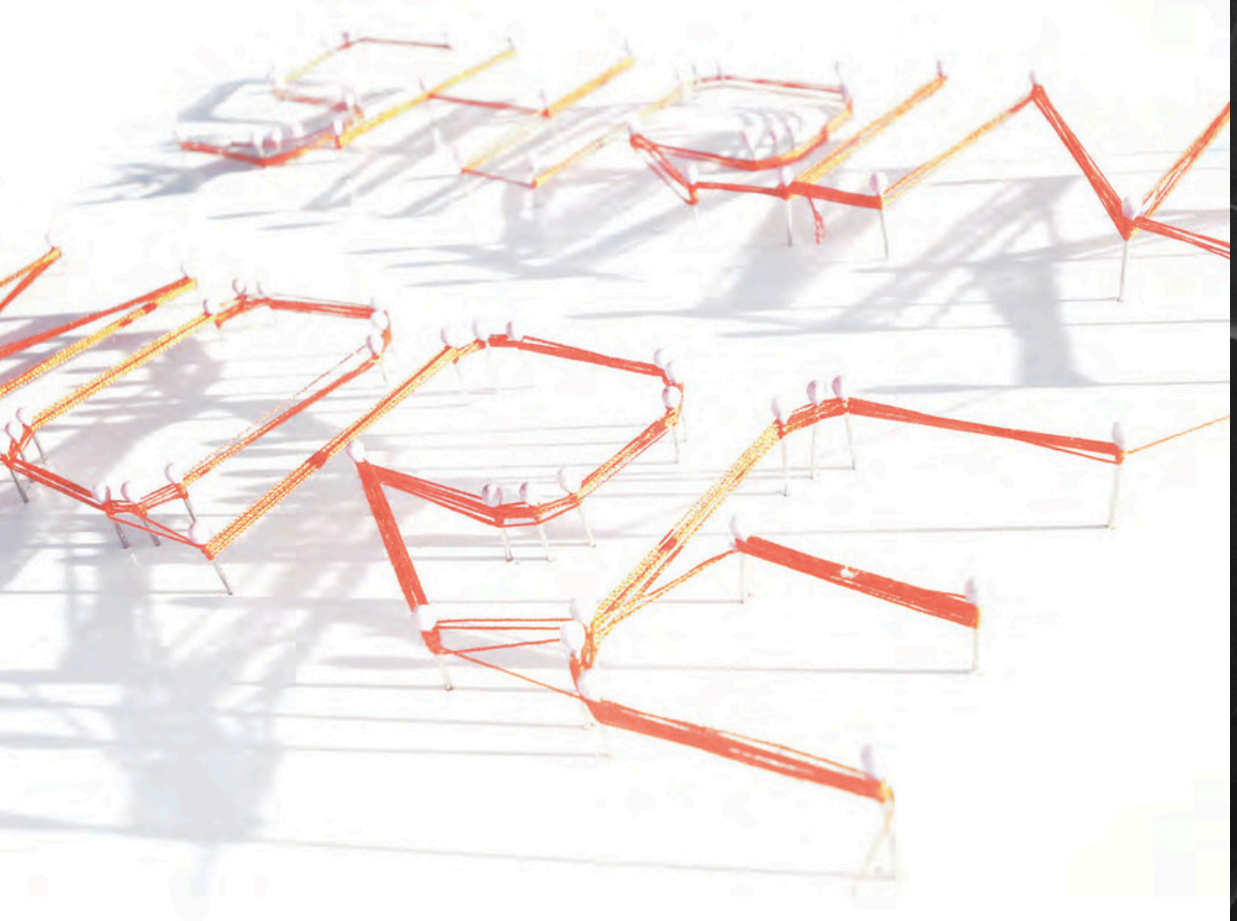




Case Study

Tracing with Toilet Paper

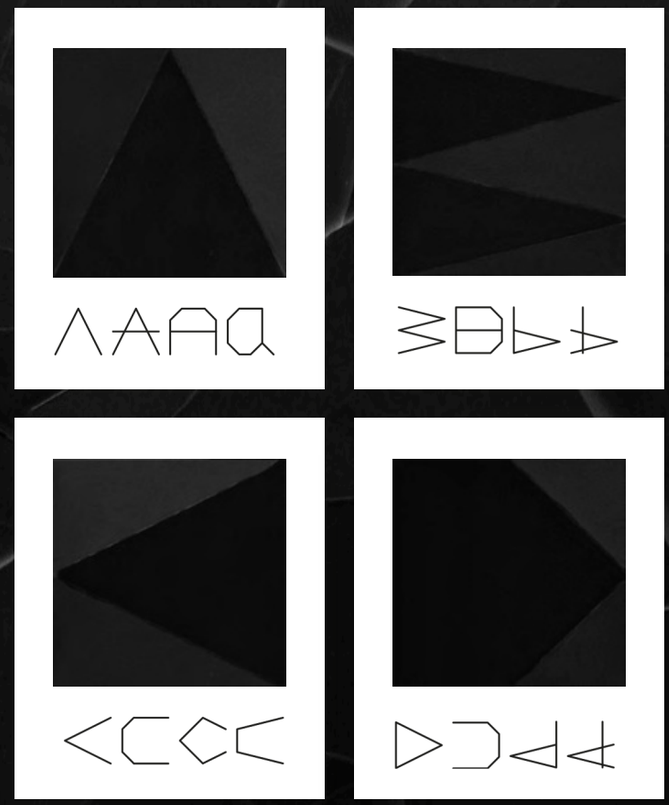
This project was part of a course taught by Pongtorn Hiranpruek at the Alliance Française in Bangkok. The course is open to the public, so many students are new to the visual arts. They lack drawing skills and are unfamiliar with software. This tracing and drawing technique helped non-designers generate visual images and learn how to use digital tools. First, they traced images onto toilet paper, leaving space between the drawings. Then they used markers to add color to their pencil outlines, allowing the ink to bleed through onto a piece of paper placed beneath the tissue. They scanned these blotted color images and digitally traced them with Adobe Illustrator to make vector graphics. The icons were screen-printed onto shirts.



Case Study Physical Lettering

Letters can be created with unusual tools and methods. Photographing the work can turn it back into two-dimensional form. Alternatively, photographs of constructed objects can be traced to generate linear images.

Tools. Letters were formed with push pins and string. The designer experimented with photographing the constructed object from different perspectives and in a variety of lighting conditions. Design: Supisa Wattanasansanee.



Folded Paper Letters. The lines of the alphabet were created folding 2 x 2 inch squares of paper. Design: Isabel Uria.

Regurgitation

Design doesn't always happen at your computer. If you have been sitting in your chair for too long, it is time to get up and make a mess. If your work is starting to resemble three-week-old cottage cheese, try this technique for expelling that sour smell. Regurgitation is a process for turning moldy iconographies into something fresh. Use it to restore vital materiality to familiar visual languages by making many iterations and making lots of mess. From the mass and the mess, you can come away with fresh ways of looking at commonplace artifacts. Begin the process with open-ended exploration and end it with ruthless editing. Images produced this way can become fodder for logos, identities, illustrations, or the pure visual substance of t-shirts or posters. Learn the "how" behind constructing meaning as you shift connotations and excavate personality from experimentation. Regurgitate: out with the new. —Elizabeth Anne Herrmann

Does your work resemble three-week-old cottage cheese?

Crushed Coke Can Studies. The regurgitation process extracts unanticipated forms from discarded objects. Design: Elizabeth Anne Herrmann.

How to Regurgitate

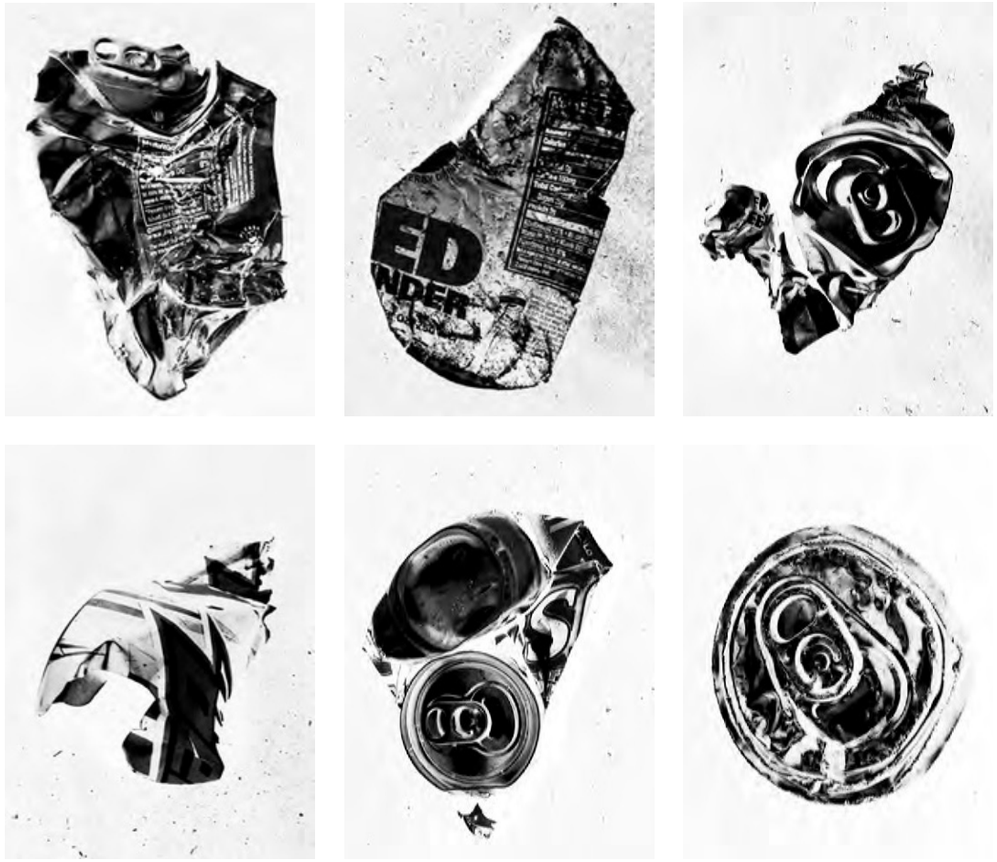
01 **Take a walk.** Bring along a plastic bag, camera, and sketchbook. Collect weathered ephemeral matter you find discarded on the streets, especially printed materials. Choose an artifact that has text on it, such as a broken bike wheel, a handwritten narrative, a parking ticket, a sign, an aerosol can, or scraps of cardboard.

02 **Study it.** What is it? What is it made of? What is it capable of doing? Of becoming? Explore its materiality and function.

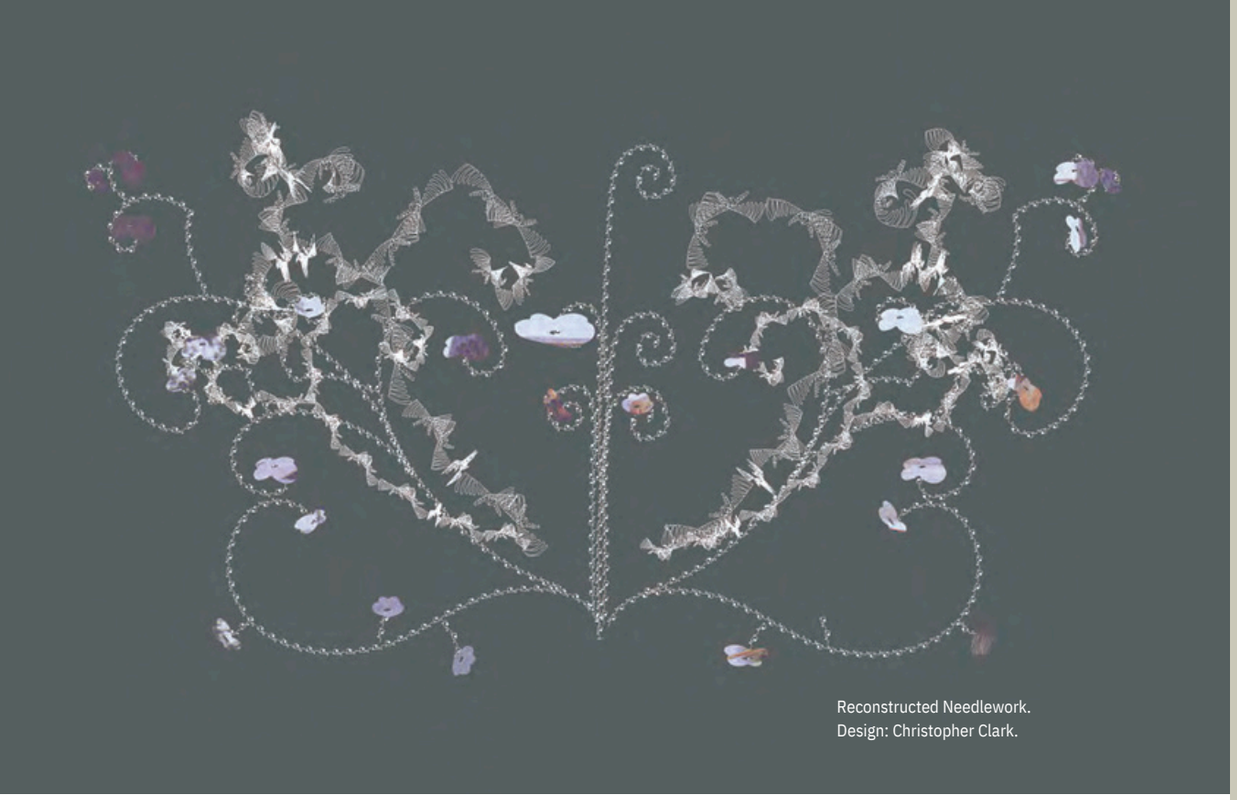
03 **Restrict yourself.** Using just this one artifact, reconsider and recompose. Do what you know how to do, what you don't know how to do, and what needs to be done. Break down the object physically. Demonstrate its essence: if it has none, give it some. If it has too much, take some away. Mess around with the parts. For example, if you drive a monster truck and have excellent tread, you could use that texture to reconfigure a Coke can. Shapes transform and letterforms torque, creating new and unexpected imagery.

04 **Document.** Using a digital camera and/or pen and paper, document the recomposed artifact. Consider environment, lighting, depth of field, and how the object is displayed. Your means of translation could mean anything from putting the artifact on a pedestal to shooting it against a green screen.

05 **Splice and dice.** Photocopy the drawings/photographs and your notes. Bump up the contrast, manipulate the images as the light moves across the glass, photocopy them onto previously photocopied papers, and more. Cut out parts from one print and collage them with others. Play with paper and ink. Get out a pair of scissors and a glue stick. Make at least fifty renditions. Don't count (but have fun).



Decanstruction. Photographic studies of crushed Coke cans yielded imagery for a screenprinted poster. Design: Elizabeth Anne Herrmann.

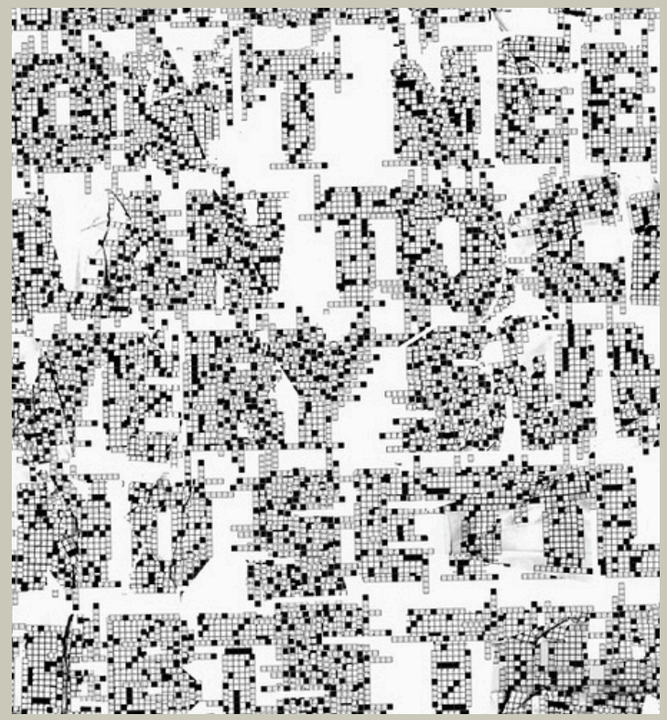


Reconstructed Needlework.
Design: Christopher Clark.

Reconstruction

Finding inspiration is easy. Translating it into your own language is a challenge. Collecting intriguing artifacts takes time and a sharp eye, but only hard work and careful thought can harness their expressive powers. Visual language has its own logic. Things look the way they do because of thought processes buried within them. A crossword puzzle does not look like a crossword puzzle unless the placement of black squares is skewed to the right and bottom sides; this is because word lengths are limited from the right hand side and never the left. The texture of a nineteenth-century needlework drawing is limited by the number of stitches available and the fabrics on hand. Learn to study visual languages and implemented them for new purpose in new media. The task is to dissect it, see its logic, and reconstruct it.—Christopher Clark

Images have a language that can be learned and spoken like any other.



Crossword Logic. Creating crossword-puzzle typography is harder than one might expect. An even dispersion of black and white squares reads only as checkerboard, not crossword. The visual language of a crossword puzzle conforms to the length and direction of words in a given language. The numbering system also plays a subtle but critical role in the unmistakable patterning of this graphic genre. Design: Christopher Clark.

How to Reconstruct

01 Collect source material: Renaissance paintings, sixteenth-century clocks, or the poetry of Walt Whitman. Choose your inspiration actively. Find what moves you.

02 Analyze and replicate your sources. If you want to know how a clock works, take it apart. The same thing applies to style. Understanding why something looks a certain way comes from unpacking it and playing with its elements.

03 Observe. As you analyze your sources, you will begin to notice how its means of construction makes it look the way it does. Take note of the details and study their origins.

04 Compile a dictionary of elements. If you were learning German or Chinese, you would study a word list. Likewise, designers can learn by building collections of shapes and marks. Use your list as a graphic vocabulary sheet.

05 Create images. Now that you understand a grammar and vocabulary, start constructing new sentences on your own. Draw lines and shapes based on those in your source material, but communicate your own vision and ideas. As you gain fluency in your new language, the potential becomes endless.

Case Study
Folk Art Studies

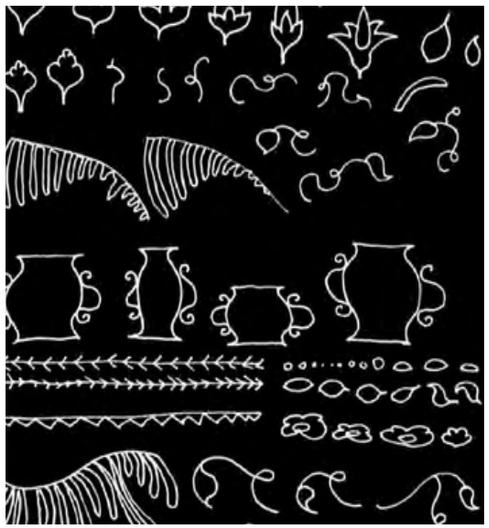
Designer Christopher Clark began his process by studying embroideries from the eighteenth and nineteenth centuries as well as traditional quilt patterns. He created an illustrative graphic style based on forms observed in the embroideries. After sketching the historic pieces, he built dictionaries of marks that he could translate into digital illustrations. The resulting pieces are graphic and contemporary yet harbor the naive delicacy of the source material.

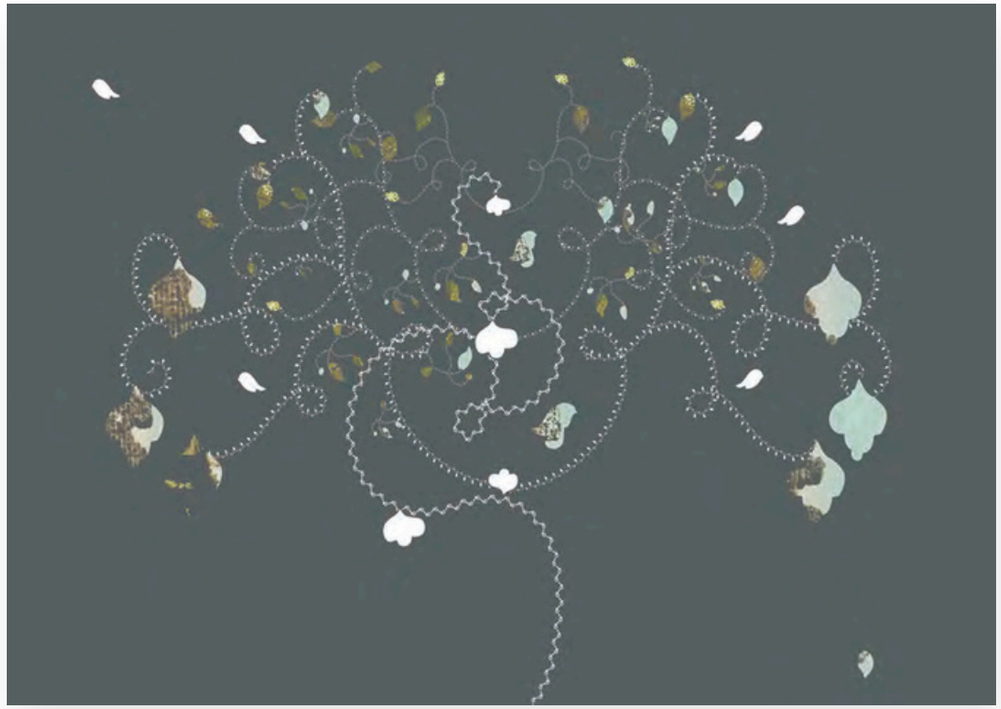
Sources, clockwise from upper left:

South Hadley, Massachusetts, 1807. Watercolor, pencil, ink, silk thread, metallic thread, and chenille thread on silk and velvet with printed paper label. 17 in. diam. American Folk Art Museum, Eva and Morris Feld Folk Art Acquisition Fund, 1981.12.8

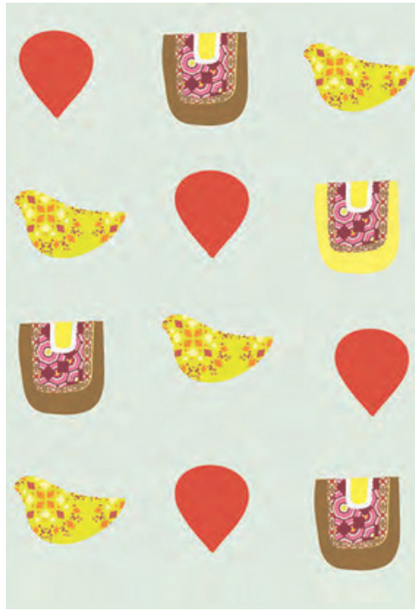
Sallie Hathaway (1782–1851). Probably Massachusetts or New York, c. 1794. Silk on silk. 17 x 20 1/4 in. American Folk Art Museum, promised gift of Ralph Esmerian, P1.2001.284.

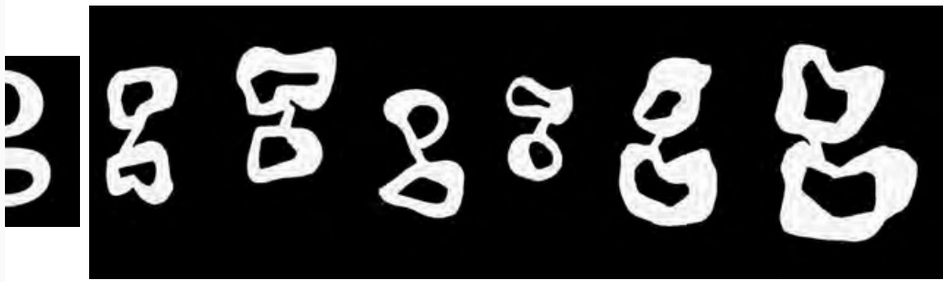
Artist unidentified. New England or New York, 1815–1825. Wool with wool embroidery. 100 x 84 in. American Folk Art Museum, gift of Ralph Esmerian, 1995.32.1





Not Like Grandma. Here, traditional quilting patterns have nourished visual imagery that is both graphic and ripe with personal voice. In these reconstructed illustrations, complex patterns nest within simple shapes to recreate a crafted vocabulary. The shape and color palettes were drawn from memories of family quilts made by grandmothers, great aunts, and church quilting circles. Design: Christopher Clark.





elggg. Witness how the straight-laced Frutiger “e” hatches out of its shell when instigated. It thrashes about, ripping apart endometrial layers before devouring its own exoskeleton. Shards fly, causing a severe puncture to an adjacent “g.” The final organism deflates faster than a bike wheel. Design: Elizabeth Anne Herrmann.

Aberrant Typography

Abnormal psychology separates unexpected behaviors from what society deems healthy or permissible. Likewise, fire alarms distinguish safe times from threatening ones through sirens and bells. On a universal level, we perceive shifts in normal states of behavior and experience. The stability of the background enhances our awareness of interruptions; the regular and irregular strengthen each other reciprocally.

Typography is a normative visual system. It involves arranging standardized elements in conventional, predictable ways. This exercise adds aberration to typographic form, juxtaposing disorder states with control states. When you push against a limit, it shows that you understand its complement, as each resonates within the other.—Elizabeth Anne Herrmann

Juxtapose states of disorder with states of control.

How to Aberrate

01 Model. Find a source of inspiration. Study esteemed classical or modern forms, or look at typographic languages you see on a daily basis: newspapers, books, magazines, websites, etc. Choose a model that is widely understood and accepted.

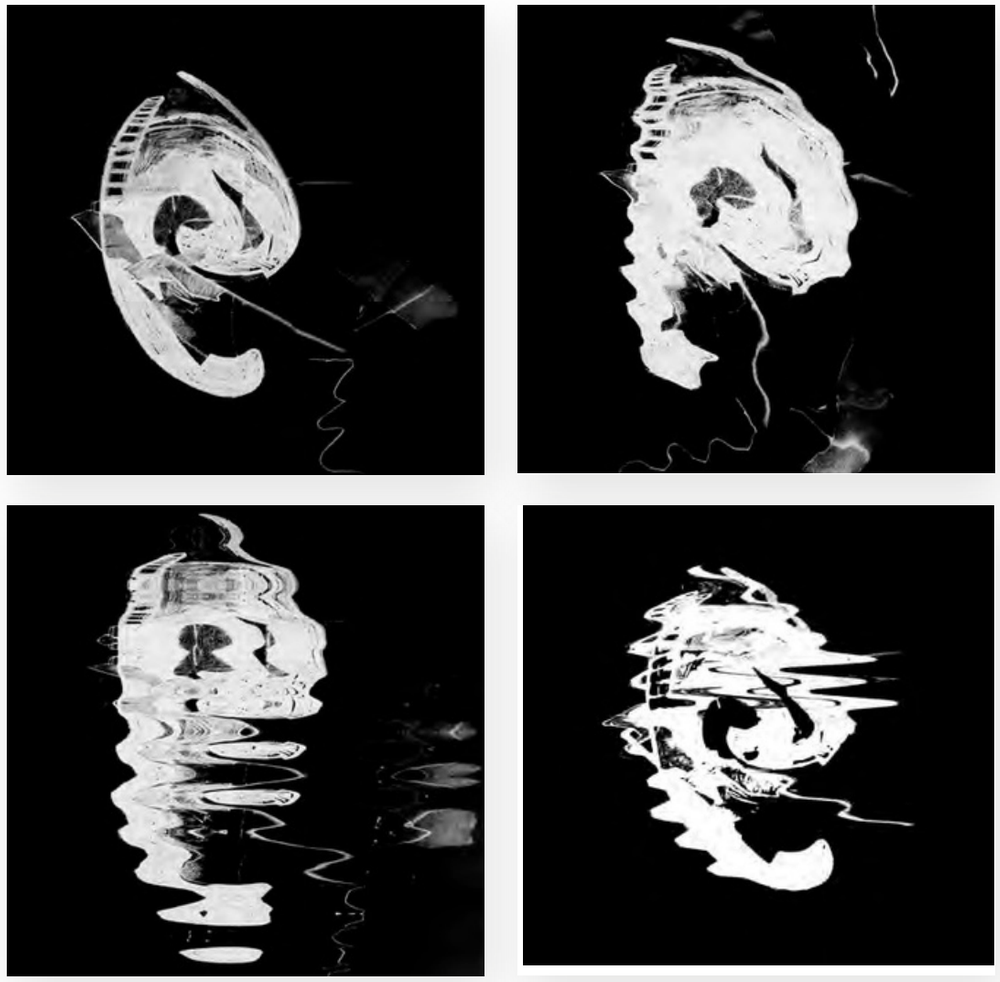
02 Control. Treat your own typographic material in response to the model you selected. Use your source to understand the expectations, restraints, decorum, and authority it embodies. Make a typographic composition that conforms to the behavioral standards of your model. Make your typography “fit in.” For example, emulate the scale and symmetry of a classical title page, or copy the rough grain of an old newspaper ad.

03 Disorder. Now, put your type under stress. Allow the normative rules of typographic behavior to inform antagonistic, alternate conditions. What becomes of your type when you place it in a state of malfunctioning anarchy? If you could make the two treatments sensibly disparate from one another, how can you red-flag the typographic tic? What happens when you shatter the elegance of your source? Release your inhibitions. The image above resulted from taking a garden tamp to a line of type.

Case Study

Distorted Letterforms

This study began by drawing letterforms with a flat-edge pen, emulating proper calligraphic strokes. In calligraphy, the contrast between thicks and thins results from the physical orientation of the pen. But what if the system becomes plagued with consistent inconsistency? To create these inebriated letterforms, designer Elizabeth Anne Herrmann systematically shifted Bezier curves to create an off-kilter effect. The visual emphasis moves from the strokes to the counters.



Build. The progression of this “e” demonstrates its process of construction using ink, tape, paper, white-out, and a photocopy machine. Pieces have been cut apart and reassembled, composed and decomposed, to build a new whole. Design: Elizabeth Anne Herrmann.

Conversations with Designers

Elizabeth Anne Herrmann asked over a dozen designers to describe their work process.

How Do You Get in the Mood?

So you have a design project. You look at it. It looks back at you. With the time you two spend together, a relationship forms. And sometimes it's hard to get started at all. Here, designers share tips and techniques for getting in the mood to get ideas.

Paula Scher

Ideas come in all kinds of ways and at different times. I get them waking up in the morning, or in taxi, or in the midst of a conversation, or at a museum. I seem to get my best ideas when I am not trying to have an idea but am involved in something else. If I am blocked and unable to come up with an idea, the best thing I can do is distract myself. Going to the movies works.

Abbott Miller

I get ideas by talking about a project. When you can talk with someone else, you build on each other's observations and arrive somewhere that neither person anticipated.

Carin Goldberg

I usually work on insanely short deadlines, so there is no time to get into any kind of mood other than a bad one. Usually, I panic and go into idea over-drive. I sketch like crazy until something clicks, and then I work like a maniac until I design something I'm happy with. I keep a sketchbook next to my bed and often wake up in the middle of the night frantically sketching. I like to keep the TV on while working. The din of inane banter keeps me calm and focused.

Maira Kalman

I don't have design ideas. I have deadlines. And a deadline usually gets me in the mood. For illustration and writing. And sometimes design enters into the final product. But I spend a lot of time wandering around, traveling, and looking at everything. People, architecture, art. I read books and listen to music. Thoughts and interests are bouncing around all the time. To really get in the mood, I take a walk. That usually provides plenty of inspiration.

Kimberly Elam

True creativity is unpredictable. Snippets of ideas come at odd hours in mysterious ways. These ideas are fleeting, so I always try to have something to write with so I can jot down notions, quick thoughts, or a satisfying combination of words. It's impossible to tell when the neurons will fire/misfire and suddenly something interesting will appear that begs for more investigation.

Don't underestimate the mind/body connection. Things such as refreshing sleep and strenuous exercise provide a relief from more cerebral pursuits. Getting away from the stress of creativity-on-demand helps reset the cycle. If creativity was easy, everyone would be doing it.

Bruce Willen

I don't think there's such a thing as a "technique" for getting ideas, so I'll just talk about a key principle: one of the most important elements of the creative process is collaboration. Working with another person can bring outside perspectives and diverse ideas and opinions that aren't possible working on one's own. Even just having a friendly ear as a sounding board can help distill one's thoughts and help separate the wheat from the chaff.

Christoph Niemann

An intriguing idea looks effortless. Unfortunately, I have discovered that the quality of a concept is more or less proportional to the effort and agony that goes into it. Hence the question "How do I get in the mood to have ideas?" is terribly close to the question "How do I get in the mood to do push ups?"

I can't have any music or any distraction. It doesn't help to look at any reference material or find inspiration in books and magazines. I just sit at my table and stare at a piece of paper. Some ideas come easier than others, but I am a bit disappointed that even after years of working, this process hasn't become any more jolly.

The one thing that makes doing push-ups more agonizing than thinking of ideas is that with the latter, I can at least drink coffee.

Philippe Apeloig

The inspiration for ideas, posters, and typographic compositions comes from many different aspects of my personal life. I live in the center of Paris in a very busy district, and I am constantly surrounded by noise from the streets and people. Even the dirt and grime add elements and layers.

For me, every project is different. I combine elements from contemporary dance, architecture, literature, and photography. I also spend a lot of time in museum exhibitions looking at different art forms. When beginning to create something new, at first I spend much of my time looking at interesting new typefaces and shapes. Doodling and drawing are all a part of my process. Drawing is a connection directly from myself and later onto the computer.

When I begin a poster, I lay out construction lines which will serve as support for the text. Most of the time I start from a text, from typography, and I continue with images. I use the editing techniques from film editing, I carve my ideas into pieces and then reassemble them in a different order. I manipulate them until the composition is right and it is strong enough to fix itself in the visual memory of the public.

The development of ideas is a very complex labyrinth. In addition to the pertinence of the concept, I take into consideration the structure of the page. In the next step, I break up the rigidity of my composition. I like it when a poster gives the illusion of movement. There must be an impression of spontaneity, even if the result is really a product that has been precisely and minutely detailed. I also dislike working with known quantities, those that are already ossified. This explains my constant hesitation, my temptation to do and redo things.

Mike Perry

I just vomit out work. It comes naturally and in abundant amounts.

When in doubt, make it with bellybutton lint.

How Do You Invent Form?

Perhaps you get down on the floor, lie on your back, and stare up at the ceiling imagining the dots and cracks coming together to make a shaggy dog licking a dead rat. Or maybe you take a trip to a distant land and observe Onkawanacarimebou peoples grind ruffage for a medicinal tourniquet. Whatever processes it takes, as an artist or designer you create form. Sometimes, you question your skills. You choose to purchase an iStock vector at the expense of making your own. Why? "Well, I dunno how to make that. I can't do that." What you might not know is that the best outcomes result when you invent new techniques to overcome what you think you cannot achieve. Inventing form is a process unique to everyone. Whether it's drawing, shooting, cutting, pasting, or smearing around some chicken blood, we give it our own spin. The following entries are responses to the simple question, "How do you invent form?"

Jessica Helfand

I am spending ten weeks in Rome in a studio with pencils and paper and wire and clay and oil paint and acrylic paint and a digital camera. Otherwise, I have nothing but my own agenda, which is to say, I have no agenda—other than the fact that I am working in a new and unfamiliar way. Well, not entirely unfamiliar, as I have been painting for nearly a decade, but not in circumstances such as these. I have stripped down everything contextual about visual form and have gone back to the beginning: the line. How do you define a line? Where does it start? Where does it go, and if indeed it does go somewhere, when does it stop being a line and become something else? When does it represent flat space, and when and how does it go from a two- to a three-dimensional representation of that space? What if you follow it and it breaks, or shifts, or migrates, or deviates into something else? And at what point do we perceive that line as something more than a mere abstraction? This last one is an old question—old for abstract artists who resist the representational arc of their work. The question persists not because artists make things look (or not look) a certain way but because the human mind looks for references to make sense of abstract form, to connect it to a known universe.

It is that space between the unknown and the known that intrigues me. My drawings, I am sometimes told, resemble calligraphic form. Do people tell me this because they know I was trained as a designer, and therefore my references must, by conjecture, be typographic? (As a counter-argument to this, and as a side project, I've started to make imaginary alphabets.) But back to the line, which remains for me the most elemental, fundamental component in making form. For one week, I made studies in color that loosely referenced the colors I witnessed in India earlier this winter—bold and vivid, unusual (read "clash-worthy") combinations that I painted methodically, illuminating the gaps between them by approaching the empty space with a paintbrush.

Knowing that I have spent most of my adult life at Yale, a visitor came in one day and shrugged. "Guess you had to get Albers out of your system."

Albers, I probably don't have to tell you, held absolutely no role in this exercise, which brought up another point about making form: do we need to copy others, modeling ourselves on their example, in order to achieve recognition for something? While I delight in looking at things in books and in museums, I don't personally feel this is how one should approach time in the studio making things. Philip Guston wrote brilliantly about this syndrome — about all the "voices" in your studio (and in your head) that you have to get rid of before you can do real work. My favorite quote comes from him: "What kind of work would you be doing if you thought no one was looking? Do that work."

So, that is what I think about making form. On one hand, ten weeks in Rome is a heavenly holiday. It is also a boot camp, in which the comforts (and familiarity) of studio life have been stripped away. I am starting over, learning by doing, with no preconceived notions of what form should be.

Keetra Dean Dixon

I routinely practice formal "thinking through making" exercises—or material explorations with no assigned outcome. This allows room to discover the unexpected. One example of this process which I applied digitally with the help of my hubby JK Keller is what I call Digital Tool Breaking: using digital applications in ways that they weren't meant to be used. We often partner Java script with Illustrator to push existing effects and filters beyond what would occur via typical human use.

My other favorite formal exploration method uses process. I often set up a system of rules to treat certain material and let that system play out over a period of time without intervening. Then I utilize/edit the outcome. I recently used this process to create a typographic sculpture. JK & I applied thin layers of wax to build 3D letter forms, repeating the layering process for a month.

Jonathan Barnbrook

Form comes first from a new ideology or philosophy. It very rarely can "appear" by just working or visually experimenting. Form has to be absolutely about the meaning of the work—what I am trying to say and the most interesting way to say it. Visual novelty is almost a distasteful consequence. In fact, I am very cynical as to the role of new form in graphic design. Yes always there is the need to recreate and reinterpret the world anew for each generation; it's a basic human need. However, we also have to look at how this new form is immediately appropriated. Offered up as novelty in order to sell people exactly the same thing over and over again. Designers should be smarter, aware of how their "creative need" gets used, if only so that they can be more careful about how and who they let it be used for.

Art Chantry

Geez, after 6+ years of higher education and 35+ years in the field, I have yet to figure out what the word "form" means. It's one of those words that is in common use in academic circles that I think really doesn't mean anything. It's sort of a word that gets tossed around to sound important and intellectual, but is totally vapid. "Form" is an abstract concept with no basis in reality.

Daniel Van Der Velden

I'll talk about form by describing a specific project I did: an invitation for ROOM, an underground gallery started and run by friends. In exchange for freedom (unlimited but committed), I did these invites for them for a few years. I am still very happy about the series. The whole ROOM series was conceived as a series of half-fictional letters containing information that was real.

The idea for the invite originated with me sifting through some hilarious—with hindsight—letters I'd written or received around the age of seventeen. Handwritten letters from girls sometimes had these big dots on the i's and j's. I thought it would be an interesting idea to write a typical adolescent letter of the type of "Dear John," which is the ultimate rejection letter, and then make that the invite. I wrote the text on a computer and a friend of mine, Vanessa van Dam—herself a graphic

designer—did the handwriting, adding big circles as dots on the i's and j's. The idea was that any receiver of the letter would basically feel something of that sensation of the seventeen-year old receiving a handwritten letter of rejection, while the hypothetical girl who'd written it would have this enormous amount of friends she'd go out with, who would be the artists exhibiting.

The idea about form is that the handwriting should convey a mood, one that Vanessa caught brilliantly! Even in an age of deteriorating handwriting and Facebook, the letter still has some of that mystery of someone desirable who is losing interest, pulling out, even though pretending to "still care." I'm not saying that was what I experienced at the time but that was the overall mood, an omnipresent "yes" and "no" at the same time.

Martin Venezky

I teach a class, Form Studio, at CCA, which is the first studio class that all our grad students take. A decent description of the class can be found in my book It Is Beautiful...Then Gone. The principles I developed for the class are the same ones I use in my own practice.

I like to begin with materials and engage their properties. I have a storeroom of materials, tools, and drawing implements on hand which I play with. As the results develop, I try to invent properties for the elements. The trick is to try and make the work feel like it designed itself out of its own inner logic rather having a form imposed by a designer. Like plants that are growing in a garden, rather than flowers that are arranged in a vase.

Louise Sandhaus

How do I invent form? Hmmm. I noodle around, mostly! I belong to the form-allows-function school of thought, so first I identify the problem the design is solving, and then I work towards making something that looks as wonderful and engaging as it is meaningful. I start with images of things that already delight me and use these as a starting place. Then I just play and play with my own approach and often with collaborators to get something that works. Working with collaborators forces me to articulate what I'm thinking. Conversation and Noodling. Those are my secrets.

Doyald Young

First off, I think it's impossible to clearly answer the question. You must first define "form." Form may be defined as dependent on the artist's aesthetic. In the vernacular, if the artist can't draw well and has lousy taste, his form will be ugly. If you want to delve philosophically into the subject, read George Santayana's The Sense of Beauty (which he later said was hogwash). Or, ask yourself what makes you think one object is more beautiful than another. Or more ugly, depending on the desired effect. Why are John Singer Sargeant's portraits elegant, that is, breathtakingly beautiful? As for my abilities, all that I ever try to do is to draw a two-dimensional object as carefully as I can, which is dependent on what I think is beautiful. For instance, there are many, many horrendously ugly fonts. What makes them ugly? So, you see, I really haven't answered your question. Except to say that every Marc Jacobs design is bone-deep ugly. And forget that it's camp.

Stephen Doyle

I don't honestly know how to answer such an open-ended question, short of writing a book, but I would rather cut up other people's books than write my own. I start out by thinking about language. Not type, not letterforms, but words, because they are so very abstract: symbols for sounds that get strung together until they make one collective sound and that can represent a thing or idea. Then I try to think if there is a way that that word can enter into the real world, where all things cast shadows and have physical properties. I like to endow these abstract things with properties that make them part of the world we see. But that's not how I make form, that's how I think about projects, or create work for myself. When i think about form, I often just start by folding paper. And sometimes the paper has words on it.

> " After sixty years, you edit without knowing where you are doing it."
>
> Milton Glaser

How Do You Edit?

Perhaps your strength lies in making—and making lots. Are you guilty of presenting fifty-page PDFs overflowing with renditions? Do you hoard seemingly useless scraps of paper and pick up eclectic materials off the street, hoping they will find their merit for a project later down the road? If so, perhaps editing does not come easily as making. You may get overwhelmed by the sheer quantity of variations you create. This gets coupled with fatigue from all the creating: choose something; it's time for bed. Editing the results gets trumped by generating ideas. Yet making choices is key to a successful outcome. These designers told us how they do it.

Ivan Chermayeff

The only criteria for choosing a design is excellence. The chosen solution must be appropriate, original, distinctive, and if possible simple and easily reproducible. It must also be adaptable to different media, perhaps requiring alternate versions for color or other requirements.

The most important part of the process of design is not to accept any direction easily. "Editing" means rejection, rejection, rejection, never stopping until you have something really good. This solves the problem in question. Never accept bad or only adequate.

The next problem is just as difficult, which is to figure out how to get a design accepted and to convey how a design is to be used.

Ken Barber

When it comes to editing, I let the project brief guide my decisions. Sticking to the job outline makes it easier to determine whether the work exhibits a clear purpose, conceptual integrity, and aesthetic appeal. If the work in question satisfies these requirements while responding to the demands of its application and the needs of the client, then the vetting process practically takes care of itself. For me, this process isn't exactly a conscious one, but rather an internal dialogue that I have formulated over years of personal practice.

Willi Kunz

By the time of editing, each of my designs has passed through three phases: concept sketch, preliminary design, and comprehensive design. Consequently, at the end of this process, I am familiar with the strengths and weaknesses of each design, and I am able to gauge whether or not it meets the client's expectations. At this point, the fitness of a design to solve a particular problem is clear to me, and its choice is more or less obvious.

After selecting the final candidate, I pick a second, to me still acceptable, design as an alternative for the unpredictable client who might have different ideas and goals. I always make sure that this runner-up is compatible with my first choice, in case the client likes some aspects of both—a rare worst-case scenario.

When editing reaches a dead end, I consult with my wife, who is not a designer. Her unbiased critique is illuminating, but in the end I follow my own instincts.

Erik Spiekermann

If we have been involved developing the strategy for a project, than we would have values to judge our work by. There should be a set of adjectives, not too redundant. (everybody wants to be dynamic and user-centric, so those are no good as metrics anymore). We measure our work against those criteria, always asking, "Is the result what the brand requires?" Recently, the rebranding for a chain of supermarkets with a large range of organic products sought to be "meaningful, alive, simple, genuine". Those are useful criteria even for a graphic designer to go by. The result won't be black-and-white grids.

If no criteria are provided, we make our own. Benchmarks can be the competition, the position we see the client in, their present design style, their ambitions but also their capabilities (which often enough are two different things). In the end, our experience tells us how much pain the client will take and how big the gap is between what they think they want and what we think they need. It is often better to ignore the client's brief and come back with a set of tough questions. Sometimes that ends the project; sometimes it starts a relationship.

Steven Heller

Let's be clear about what you mean by editing.

1. As a designer: Editing (selecting and self-analyzing) the best or worst solutions to problems
2. As a writer: Editing text to flow and parse well
3. As an editor: Commissioning, selecting, and critiquing other people's copy

The first type of editing is something I haven't done for a while. But when designing pages, I would always give myself two or three options. Like playing a child's game, I move elements around until I'm content with the outcome.

The second mode of editing is a process of writing, cutting, moving, writing some more. It's similar to designing. The words and sentences are elements of the puzzle as well. I see words as blocks of type.

The third kind of editing is often the easiest. I can see what someone else has done that is, say, over-indulgent, underwritten, or sloppily constructed. I can remove, add, and recompose if necessary. Usually, I trust a good writer to produce a good story. Then it's a matter of do I want to publish it or not.

I do not develop specific criteria in a conscious manner. I adhere to certain habits, but I try to be open to new approaches. Usually, I go by gut.

Luba Lukova

I always do a lot of research by reading and absorbing visual information. Then I try to distill what I've learned, and I begin doing preliminary sketches. I really like that part of the creative process, and I always want to extend it as long as possible. Usually, my first idea is the best. When I really like the theme of my project, like when I'm doing a poster for a Shakespeare play, I push myself to explore more possibilities even if I'm sure that my first idea is going to work, just for the pure joy of immersing myself in the text.

My editing process is very personal. It involves all of my intuition and logical thinking. I keep an archive of good sketches that have not been used because often they can trigger an idea for another project. In that sense, the work process is more important than the finished piece because I've learned and discovered new things that can be helpful in the future.

When I discuss my ideas with a client I usually show about three sketches; most of the time my clients agree with my choice. If I know the client well, I would sometimes show them my entire sketchbook, but I rarely do that because I'm afraid that can be disorienting. A couple of times I've shown just one solution in an almost finished form, and it has worked fine. On these occasions I've felt that my idea is right and there is no need to distract the client with additional choices. When I meet with clients I try to be a diplomat and make them feel that their own choice coincides with mine. But I'm also always doubtful about my work and sometimes I ask the cleaning lady in my building to tell me what she thinks. If she understands what I'm trying to say, then I know that I'm on the right path.

Jennifer Cole Phillips

I always begin by defining the problem according to this construction: subject/audience/purpose=voice. When a problem is examined in this way, the tenor and specifics of the visual and verbal language reveal themselves though their relative appropriateness to the context.

Beyond that, editing, again both visually and verbally, involves the discipline to reconsider, revise, and refine your choices so that the formal properties–composition, tension, rhythm, hierarchy, etc.–and the expressed message land precisely in the right place.

Ben Kiel

I'm a typeface designer, and the dirty truth about typeface design is that the fun, actual design bit is about 5% of a project, the other 95% is the production of that 5%. This means that there are really two modes of editing, one for the first 5% and one for the other 95%.

The first editing mode takes the form of research, investigation, and sketching. The first question that one asks is "What is this typeface to do?" The answer to that question guides the editing process. One starts with a vague idea of what is needed, either informed by a client, a use, or a thought. Researching ways that the problem may have been solved in the past, looking at historical models for clues of what to do or not do, and sketching forms is the first bit of editing, though it's really the gathering stage.

To edit all of that down, I then start playing with ideas. Often, I'll use tools to explore the possible design space; things like interpolated versions of trial fonts (using Superpolator) to find out things like how high/low/wide/tall/open should a ascender/descender/serif/counter be? The goal here is to find the limits of the design space that you're working in. Knowing what won't work is just as important (if not more so) than knowing what will work. One is constantly referring back to the intended use to judge which variations are working. This is an iterative process, trying things and rejecting or combining them until a good working model emerges for how the face should be.

One usually just does this on control characters, so that you don't have to draw everything to test. In short, this phase of editing is experimental, where you throw everything that might work at a wall and see what sticks. The end result is a tight brief for how you want things to work and look. Taking that brief into the next part is where the rubber hits the road and production begins. One draws everything else for the type family with this defined model in mind. Editing here is akin to looking at the blueprint and rejecting things that don't fit the mold. Mind, the blueprint doesn't spell everything out, so things have to fit the spirit of the plan, but they need not rigidly conform.

Georgie Stout

On some of our bigger branding projects, we conduct studio-wide charettes, which allow for designers of all levels and areas of expertise to sketch logo ideas. These often yield walls full of concepts, some viable, some not. Often there are real surprises, things that we wouldn't have thought of or allowed to develop if we had been working with a more controlled sketching process. We usually discuss and decide as a group to narrow them down to a more manageable set that we can refine and post again. I usually edit down to a set of ideas that seem to resonate with the content first and foremost as well as solutions that are graphically strong. I guess it's a kind of internal knowledge (as you say, a gut instinct) of what you think will work well for that particular client, along with a desire to always include ideas that seem unexpected and new.

Rudy VanDerLans

Your question made me think of a story told by Ira Glass about how aspiring designers start recognizing good design (he was talking about writing, but it applies to all art) long before they can make good design. There's no shortcut to getting from recognizing good design to actually making it. It requires practice, and it requires a lot of editing, and you get better at it over time. And if you're lucky, you'll never really get there, because if you do, you're probably not challenging yourself.

Obviously, design=editing. And when I design something I work on it until it makes sense and looks good, and until any further change made to it makes it

less so. And the longer I've been working this way, the more difficult it has become. I thought it would get easier but it hasn't. It's a constant search to recognize what comes naturally to you and what feels good to you, and the ability to express those feelings honestly without much concern for what is currently in style while knowing full well what is in style.

When I stick with all that, I may end up with something that looks half way decent.

But I'm beating around the bush regarding your question. And that's a form of editing, too, I guess.

Anyway, I've been working on a very involved type specimen book, and I've been thinking about the issue of editing as I'm working. I can honestly say that I cannot describe the process that goes on in my mind. It turns out that the decision-making process I utilize is a complete mystery to me. By not trying to come up with a smart answer simply because the question needs answering is a form of editing as well.

David Barringer

How do I edit? I dream. I improvise. I fail and try again. I could talk forever about editorial judgment. How do I edit? My answer would come in the form of a poem, a novel, an essay. Beauty is mostly pretty and a little ugly. The best kind of play hurts a little bit. I work toward an essence. I keep what works and throw out what doesn't. I do too many crazy things until one of them is the beautiful kind of crazy, and I stick with that. How do I edit? Basically, it varies.

If you are an adherent to a particular -ism (modernism, postmodernism, realism, the International Style, De Stijl, Paul Randianism (!), the Bauhaus, whatever), you have solved with one stroke of your sword the Gordian knot of editorial judgment. In other words, you abdicate your judgment in favor of strict rules. You still have to apply those general rules to your specific design (the way lawyers apply the law to specific cases), but you don't question the rules.

As for myself, I don't follow an -ism or a strict set of rules. Which means I am not just the lawyer and the judge, I am also the legislature and the philosopher. I can change the rules. I can change policy. I can change the whole system of governance, as it applies to my current design project. This can be liberating and empowering, but it can also be a real pain. It can be a lot of work. I can become ambivalent. I can paralyze myself with indecision.

So I have many tricks and strategies and lines of thinking that I follow. I will limit myself here to the design of book covers. For book covers, I strive to represent some part of the content of the book, be it mood, tone, genre, a character's perspective, setting, or something else. That gets me started. Then I fool around with ways to limit myself. Because the rules have not been written, and the tools are wide open (I can use an ax to chop wood into type or I can paint on my chest or, you know, on and on), I have to find some way to limit myself. These limitations can be drawn from the book's content. Let's say abstract and black and white and all hand-made. Or literal photography and collage and left-justified type. Or cartoonish and garish color and warped perspectives. Somehow these limitations enable me to move toward a mood or style or point of view. Then when this stuff is swirling around in my head, I remember to work backwards from the final object: hardcover or soft, dust jacket or belly band, and, of course, budget! And time! And then you've got the client's requirements ("Please use this photo my brother took; he spent so much time Photoshopping his cellphone photo!").

Practical concerns help limit the horizon of possibility, which for me stretches as far as the mind can conceive, forward and backward in time. So once I've messed around with seeking limitations, I see what I have left. What other criteria can I use to get me started? Sometimes it's something as simple as whim. I feel like using a photo. Or I feel like trying something I've never done before, like making type out of braided bread for a murder mystery about a baker who strangles his victims. Har har. But sometimes that's enough to get me going.

That playful phase of seeking out forms inspired by content and seeking out limitations in tools and perspectives and practical concerns will end soon enough, and I've got to crank out some covers. There are so many moments of trial and error within the messing-around phase of sitting down and working that I'm going to skip that squint-at-the-monitor minutia. The number of judgments that rocket through my brain in those little moments approaches infinity. It's the period of intense work that is analogous to a sprinter running down the track or the basketball player dribbling down the court. You can try to break down the decisions in those moments using slow-motion or frame-by-frame photography, but there would still be more moments in between those frames that you could investigate, looking for that inspired moment when the athlete made the judgment that changed everything. So, instead, in design, I do the work of moving and making and deleting and trying again. It's after this period of concentrated work that I sit back and review the three or thirty-five covers that I've done for the book. Variations on a theme, on a mood, on a tool, on a perspective. Now I have to edit. I have to cull the herd.

This is tough and yet not so tough. If nothing jumps out at me as perfect, then I realize none of them will work. If there were thirty covers, it's likely because I regarded every one as a failure and kept creating cover after cover. But even if there are only five covers, I can reject any cover for any reason, and end up with a cover that is unobjectionable—and bland, boring, and blah.

This happened to me with the cover of my recent book. I realized I was too close to my own book to design the cover. So I art-directed! That was my most significant editorial judgment as a book designer. I recognized my own failures, and so I asked someone else to illustrate. This illustrator did not have the intense personal relationship to or in-depth, near-paralyzing knowledge I had of the book's contents. So he cranked out half a dozen illustrations, and I knew one of his iterations did what I had been trying to do but had failed to accomplish. I worked with him to refine the illustration until it was a wonderful kind of perfect, in style and interpretive as well as emotive power. (And you can see how abstract and general my language gets here; it's easy to find all the reasons a design doesn't work; it's hard to find the one reason it does.) Anyway, the illustration could be interpreted to mean what I wanted it to mean. Meaning! Was that how I edited? Maybe! I then set the type for the rest of the cover, and wham. Finally, exhaustingly done.

Other book covers have different stories of the judgments I made to reach a final design. Sometimes the client wins out with their vision, and I don't fight it. Sometimes deadline dictates. Sometimes budget determines. In those sorts of cases, I'm usually, to be perfectly honest, happy to have finished the job, but dissatisfied with the final product. Most of my designs that are made according to a compromise external to the art (external to the meaning!) are functional but dismissable. There is a shoulder-shrugging banality about the whole enterprise.

The best designs, the ones I love to interpret and look at again and again, are something else entirely. They connect to the subject matter, the content, they are not literal but figurative, they can sustain more than one interpretation. They make you want to pick up the book and look at the cover, but they also reward you when you have finished the book and return to look at the cover. These are all conclusions about a design. They are qualities of a final design. They are not practical rules for making editorial judgments, really. Knowing the qualities of the final design doesn't help me get there. It's like I can see the foggy outlines of the mountain in the distance, but that doesn't help me determine the best way to get there. I need to go through all the work I described above to get there, and I may still end up at a different mountain—or in a different fog.

Basically? I dream.