



This section explores various drawing processes and their integration into design and production—including practical application through a series of selected real-world case studies.

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# Pro- c/ .ess ps/

Drawings come to be through an intensive dialogue between intuition and analysis. The opening stages of their evolution initiates a period of play in which a designer first confronts unlimited possibility for subject matter, means of representation, and form language. In this initial investigation, the designer must leave preconception behind to test spontaneously the available options; to evaluate what results from these first attempts; continually to add, subtract, alter, and rediscover; and eventually to resolve the forms that contribute to the fulfillment of the designer's purpose.

The process takes place through creating, obliterating, and reworking. Each idea, each form, each structure, as it manifests in the accumulation of marks and gestures, presents information to be incorporated or refuted. The process almost cinematically records its development for contemplation, accepting missteps as necessary components upon which to build the right elements. In that sense, the drawing process is very forgiving; it is assumed that accidents will happen and allows them to become part of the final work.

So often, designers who don't typically draw are paralyzed by the fear of not getting it right in one shot. It's important to recognize that the process of drawing defines "failure" as a clear direction toward improvement; only by seeing what isn't right can one then conceive of any possible appropriate alternatives. That recognition builds skill and then confidence in exercising it. The very idea of failure transforms into the idea of discovery, liberating designers to actively seek out the true depth of their creative sensibilities. This fear is also often compounded by the misconception that the purpose of drawing is to accurately reproduce observed reality. Considering the works of such fine artists as Alice Neel or Henri Matisse—which certainly are not accurate depictions but, seem somehow "right" because of the artists' gestural confidence and their decisive demonstration of universal principles—reveals the limitation of this idea.

The process itself, while more or less universal, is unique to every designer and, very often, to the context of each individual project. Some designers favor intuition over analysis and allow form to live as it comes into being, freely altering as it develops; others approach drawing from a highly structural and analytical standpoint, architecturally planning and constructing it in discrete stages. Only through experiencing the process can one define one's own methods and how these may be applied in any given situation.

Beyond the process of making the drawing itself, a designer must also integrate this act into the overall ideational process of design with regard to other design elements and the process of production. How the drawing comes about, its medium and method (whether physical or digital, or both) must be considered in the context of photographic and existing typographic structures or styles that may be used, as well as how these will be incorporated in the environment of the software being used to prepare the completed work for print or screen-based publication. Drawing, as will be seen, happens literally in image-making but also informs a conceptual process of manipulation in composition and content interaction at many stages during the development of a total project.

# The Search: Ideation and Resolution

Many designers, despite the individuality of their approaches, tend to follow a staged process that leverages basic notions garnered from early formal training, even if they are very experienced. The fundamental idea of this process is to define the simplest aspects of the image first—the broad strokes, as it were—and then, through successive stages, to clarify and enhance more complex aspects with increasing specificity; in effect, building a rough foundation and then filling it in. Although this process may be described and understood intellectually as linear, it is usually reiterative and circular, meaning that it often necessitates stepping back as a result of going forward. Intuition guides the exploration; analysis of what results defines a particular direction; intuition returns to test variations; analysis guides the drawing toward its final form.

## Modeling Creative Processes

The design process may be mapped using a few different models. As seen here, such models typically incorporate similar stages of inquiry that act in different relation to one another.

### Exploration

The designer examines a range of different approaches to understand their respective potentials in the given context: visual brainstorming to discover possibilities.

### Focus

Comparing the results of the exploration, the designer evaluates which possibility—or combinations thereof—may yield the most interesting and clearest direction for the visualization of the subject.

### Construction

The designer integrates and “builds” the components of the form and composition, working with the attributes he or she has selected.

### Testing

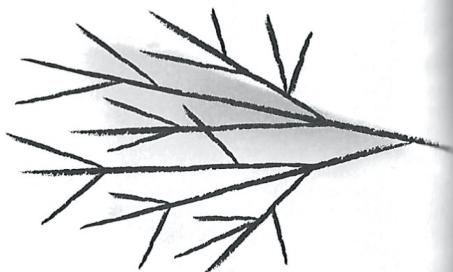
As the drawing takes shape, the designer experiments with variations—in scale, rhythm, position, and so on—to determine how these options confuse, clarify, or augment the constructed image.

### Refinement

Not to be confused with “clean-up” or mere simplification, this stage concerns editing the form to clarify relationships—to bring them to a state in which they appear purposeful and somehow “complete.”

## Converging Tree

Visualized as a series of stages in which multiple alternatives are compared, and some selected for further refinement, in successive rounds; at each juncture, the choice of alternatives narrows until only one refined state remains.



## Focus Target

Similar to the tree model, each set of alternatives directs the designer to the next level of specificity; in this model, however, only one option is given focus at a time and future directions selected from testing and refining it alone.



## Iterative Spiral

The path of exploration is generally a path of gradual, simultaneous exploration and refinement that readily circles back to incorporate understanding from previous phases.

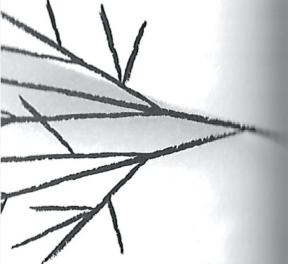


## Staged Augmentation

A continuous, linear evolution where each stage is formed directly upon the previous one.

## Growing Tree

ed as a series of stages in which alternatives are compared, and selected for further refinement, in five rounds, at each juncture, the set of alternatives narrows until only one state remains.



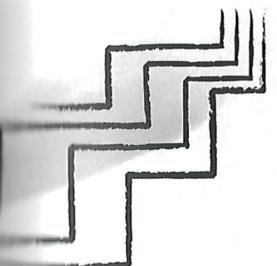
## Target

er to the tree model, each set of alternatives directs the designer to the level of specificity; in this model, however, only one option is given focus at any time, and future directions selected from among and refining it alone.



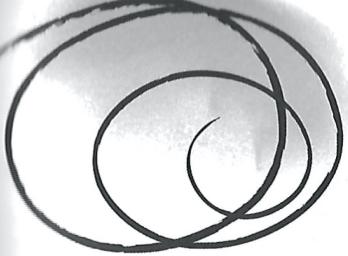
## Iterative Spiral

The path of exploration is generally linear, a path of gradual, simultaneous exploration and refinement that iteratively circles back to incorporate and test understanding from previous phases.



## Staged Augmentation

A continuous, linear evolution in which each stage is formed directly from, and incorporates, the previous one.



## Emphasizing Exploration

In some sense, every stage of the creative process is one of exploration, so it's important to really understand what it means: investigating, without preconception, as thoroughly and objectively as possible. To envision an end result and work only toward that usually results in a formulaic response, even cliché; it blinds a designer to potentially more inventive solutions. Cutting the exploration short before seeing an exhaustive diversity of approaches similarly denies comparison of all the options—the best one may be unknown. At every juncture, the designer must accept the exploration's results, whether these support an intended goal or reveal limitations, even failure: the point is to discover what is effective and discard that which isn't, rather than force the visual solution to conform to some predetermined desire. Being open to rethinking is critical. Try not to like anything in advance: find what works and then like it because it does.

## Refinement and Resolution

The process of clarifying form language, compositional structure, spatial relationships, and so on works toward achieving a state of "resolution," a condition in which the drawing's visual attributes have become somewhat singular—indisputably embodying a particular quality such that their relationships seem "decisive," or that they appear intentional (two forms clearly aligning, for instance, or clearly not).

The work of refinement, or making specific editing decisions (such as smoothing a curve so that it actually appears to curve fluidly) should not be equated with trying to achieve the apparent "cleanliness" or reducive quality of an icon or translation. Gestural drawings that announce their medium explicitly may be highly refined; sometimes they show this process of refinement as "leftover" sketch marks, or elements that have been erased and redrawn, which become part of the resolved language. There is no right or wrong to be found in a form language's resolution. It simply exists one way or the other and, in the context of all its parts, seems the one best way to be.

- Naturalistic or stylized?
- Profile or head-on view?
- Optical or isometric perspective?
- Close-in or distant?
- Horizontal, square, or vertical proportion?
- Planar or volumetric?
- Mass or line?
- Field or singularity?
- Focused or dispersing?
- Energetic or passive?
- Same or different size?
- Repeating or always differentiated?
- Curvilinear or angular?
- Equidistant or not?
- Parallel or diverging?
- Aligning or not?
- Gradual transition or abrupt change?
- Touching or overlapping?
- Staccato or fluid?
- Consistent thickness or modulating?
- Rising or falling?
- Tight curve or open and steady?
- Alternating or progressing?
- Darker or lighter value?
- Soft or sharp?
- Diagonal or orthogonal?
- Multihued or monochromatic?

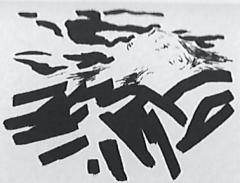
## Exploration for the Sake of Experience

Outside of an academic setting, it's a rare luxury to be able to study a subject in great depth. Even so, it's important for a designer to set aside a significant portion of a project's schedule to thoroughly investigate as many different possible approaches up front, even in a limited time frame. The experience thus gained ultimately allows the designer to make faster, more reliable decisions at later stages.

### What is an adequate exploration?

The study of a mountain scene shown here, an academic exercise, nonetheless reveals the thoroughness and diversity of process toward which designers would be well advised to strive. This open-ended study began with illustrative, naturalistic attempts at differentiating the scene's three spatial areas (sky, mountain face, and landscape), but the designer knew intuitively that something more inventive was possible.

All images on this page spread:  
Andrew Iskowitz United States/  
Completed in the advanced class in graphic  
design, Basel School of Design; Peter Olpe,  
Instructor; Basel, Switzerland



A Early studies focused on line, complex detail, and regular positive/negative alternation.



B Greater contrast in weight and positive/negative distribution



Investigating contrasting line, mass, and scale detail revealed dramatically different options for identifying each kind of space, with different tools—pens, round and flat bristle brushes, sponges, and white paint—exaggerating these variables /A–E/.



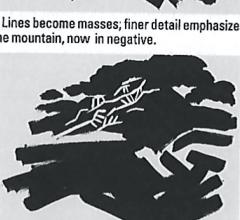
F Line weight concentrated on the mountain form and a textural sky area



As greater foreground mass accumulated from study to study /A, B, C/, the designer returned to incorporate flat, planar forms for the mountain face and then, subsequently, tested sharp, small-scale linear detail in both positive and negative /C, D/. Heavier textural and linear motifs /F–J/ later merged as evidence of discoveries made in previous studies.



H Less controlled gestural



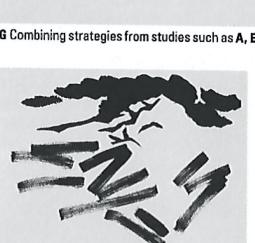
C Lines become masses; finer detail emphasizes the mountain, now in negative.



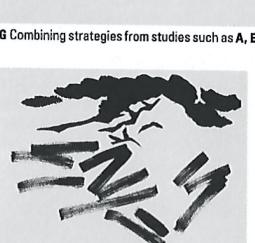
D An evolution toward heavier marks overall, contrasted by reversed line detail



G Combining strategies from studies such as A, E, F encapsulates a preliminary phase



E Maintaining weight contrast with overall heavier line motifs



H Again reversing strategies for weight distribution along with reduction in the mountain face



J A test of the planar mountain and reversed line detail combines with strategies in H.

I Lesser gesture with greater weight distribution



M An evolving emphasis in foreground again integrated

Reaching such conclusions, the designer to reverse the logic, focusing weight on the mountain contours while the landscape with lighter lines /K, L, M/. Seeing this process another combination of geometric shaping the mountain in opposition to the primarily negative foreground thereafter, uniform weight parts of the image, whether line or mass, and in various ways.

As greater foreground mass accumulated from study to study **A, B, C**, the designer returned to incorporate flat, planar forms for the mountain face and then, subsequently, tested sharp, small-scale linear detail in both positive and negative **C, D**. Heavier textural and linear motifs **F–J**, later merged as evidence of discoveries made in previous studies.



**I** Another evolution exaggerates approaches seen in **F, G, and H**



**A, E, F** encapsulates a preliminary phase



**J** A test of the planar mountain and reversed line detail combines with strategies in **H**.



**B** Less controlled gestural marking



**N** The light, linear foreground contrasted by heavy marking strategies from **D, H, and L**



**R** A return to generally heavier marking with the simplicity of study **Q** but more foreground detail



**I** Loung gesture with greater specificity of weight distribution



**O** Another variation merges sky and mountain, separated by loose reversed lines.



**S** A late-stage study returns to generally even line weights throughout.



**M** An evolving emphasis on the lightness of the foreground again integrates textual marks



**P** Further spatial merging tests negative detailing seen in studies **D** and **J**



**Q** A dramatic simplification combines aspects from **K, N, and O**

This exploration ended when the designer achieved what he considered an adequate level of understanding. Had there been a defined, practical goal, the designer would have a tremendous body of research on hand from which to make further, directed decisions to support it.

On the following pages, studies that inhabit varied geographies of drawing concisely demonstrate fundamental processes and their seamless integration of intuition and analysis.

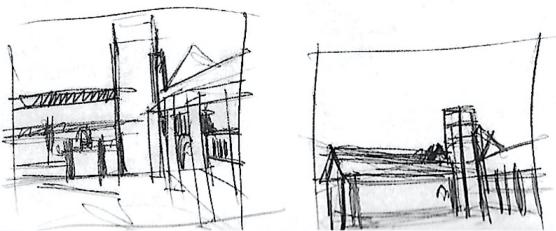
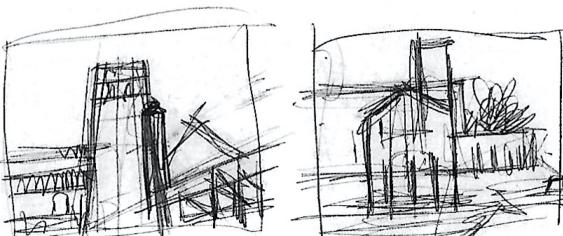


**Empirical, Volumetric Drawing /  
Timothy Samara United States**

The author's goal was to understand and represent complex, structural relationships in architecture using a typically academic, perspective-based approach.

**Exploration**

Quick studies /A/ compared different vantage points and their effects on the overall proportion of masses, distribution of axes, and the relative clarity of understanding—what would be revealed or obscured at a given angle and how the structure would break the space of the format.

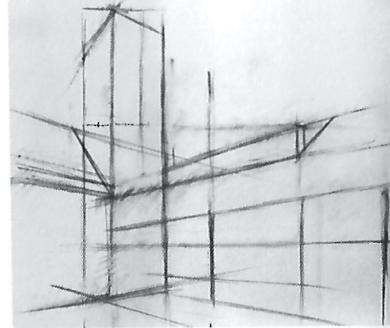


**Focus**

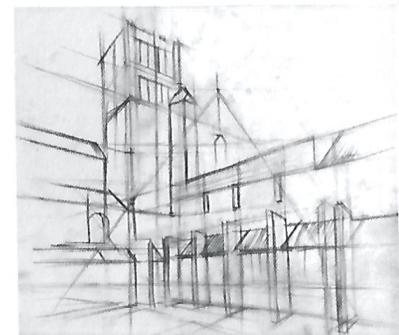
A relatively low, close-up viewing angle was chosen /B/ to emphasize the height of the vertical tower and horizontal thrust of the adjoining hall. The relatively symmetrical perspective of this view overcame potential confusion of more detailed structures inherent in the dramatic, asymmetrical perspective of other studies; setting the main vertical axis to the left of the format's center counteracted a potentially static quality in the symmetry.

**Construction**

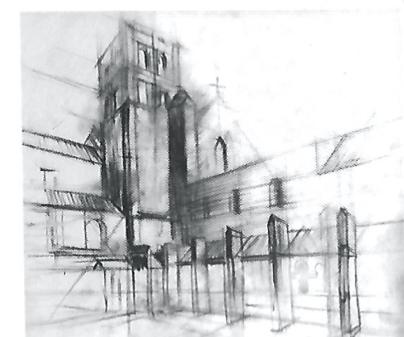
Major axes and contours were drawn first /B/, establishing the compositional structure and defining the relative measures of heights and widths among the building's components. After the most general, large-scale measurements were verified through comparison, more intricate axes and contours /C/ were continually added to articulate subordinate structures.



**B** The selected vantage point best reveals the building's structure; major axes break the format into dynamic proportions and establish rudimentary divisions between the building's components.



**C** Extrapolating axes provides reference for more complex divisions and helps confirm relative distances among forms.



**D** Darker weights confirm desired lines and loops to emphasize specific components, as weight builds within the tower structure, the designer darkens the buttress and tower right as a counterpoint. Other

**Testing**

Upon achieving a minimum of form, tested additional deeper value emphases helped prove and tested dynamic count across the page with the tool to undesired ones, eraser, while the drawing's

**Refinement**

Determining the value (lighter or darker) at areas can create a sense toward. Rather than story lines, the room and us disintegrate a sense of movement, as their spatial and horizontal slight smudges help resolve the form by the untouched



reveals the building's structure; major proportions and establish rudimentary components.



evidence for more complex divisions and long forms.



ed lines and begin to emphasize voids within the tower structure, the lower right as a counterpoint. Other strong, triangular axis connections.

### Testing

Upon achieving a spatially-accurate armature of forms /C/, the designer tested additions of texture and deeper value /D/ to see which emphases helped clarify perception of space and structure, as well as lend dynamic rhythm and movement across the format. A light touch with the tool permitted removal of undesired emphases with a kneaded eraser, while still adding evidence of the drawing's evolution.

### Refinement

Determining an overall progression of value (light to dark) along the vertical axes from exterior to interior created a dramatic visual pull inward. Rather than remove exploratory lines, the designer embellished some and used the eraser to hazily disintegrate others, exaggerating the sense of movement. Textural, diagonal strokes that follow the angles of the pitched roofs impart further movement, as well as help define their spatial relationships to vertical and horizontal planes. Erasing and slight smudging of specific axis lines helps resolve the unfinished exterior of the form by integrating them into the untouched areas of the format /E/.



E Further erasures at the left, extension and embellishment of seek lines along the tower, and controlled alternation of darkening and diagonal erasing all clarify value progressions and axis relationships.

Drawing  
/for Graphic  
Design

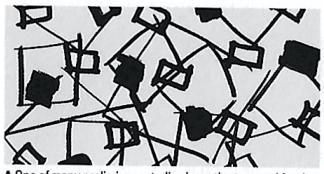
Processes

The Search:  
Ideation and  
Resolution

# 6

## Nonpictorial Language Study Catherine Harvey United States

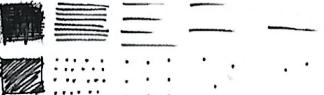
The designer's goal was to invent a series of non-pictorial images, unified by syntax and gestural logic, that would also demonstrate the language's versatility.



A One of many preliminary studies investigates combinations of syntax—here, overlapping open and closed squares.



B A later, preliminary study shows a progression toward a more specific syntax in simpler configurations.



C In focusing, the designer visually "outlines" the variables with which to work: line weight, spacing, and geometric axes.

### Exploration

The designer roughly sketched a number of form languages /A/B/. Many of these seemed too complicated; two examples show a greater restraint toward the end of this phase, focusing on a single form element (squares, versus lines) acting in varied relationships (overlapping versus separate).

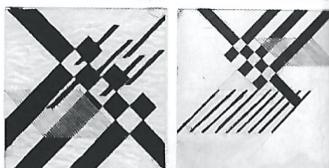
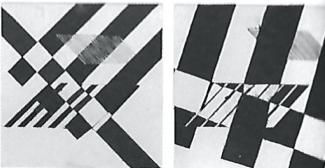
### Focus

Deciding to pursue a language of lines, the designer focused the study even more specifically by mapping out a family of weights and densities, along with a rotated 90° axis as a compositional device /C/.

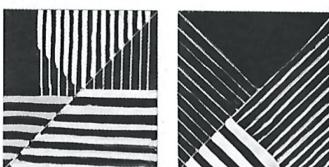
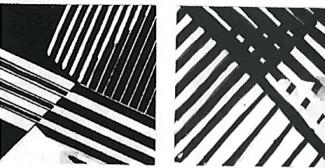
### Construction and Testing

Working with cut paper and casein paint (drawn with brush and ruling pen), the designer built each layered study as a kind of test, blurring two phases /D/. Among nearly 150 variations, she often repeated compositions, changing one element for comparison. She also explored versions based on a dark background /E/, ultimately discarding them as too heavy.

While testing a black marker, the designer noticed a new kind of staggered rhythm /F/; she expanded upon it, introducing differences in spacing and a heavier diagonal element—all aspects she had previously examined. But now, leaving behind the 90-degree axis afforded a looser, more fluid kind of geometry the designer felt was fresher and less rigid.

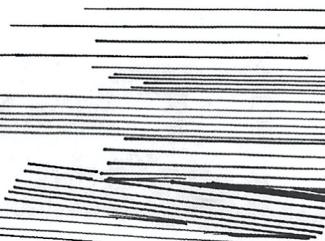


D Construction variations test the variables, further limited.

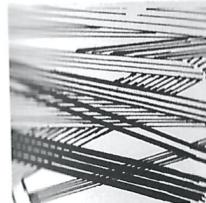


E An alternate series constructs the drawings in negative and with simpler conditions of overlap.

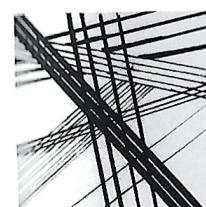
F What began by testing a marker suddenly revealed a new direction that was both simpler and more organic in rhythm.



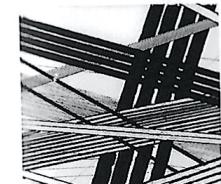
G A controlled version of the new language, using ruling pen



H Visualizing the language with weight progression for greater contrast



I Examining a greater diversity of angles, weights, and spacing



J Even more extreme contrasts combine with overlaps of light elements on dark ones for more ambiguous space.

Following the initial sketches, the designer began to explore the language's potentialities. She began to experiment with the variables of line weight, spacing, and angle, and to consider how they could be used to create a sense of depth and movement. This led her to investigate the use of perspective and the creation of three-dimensional space through the use of overlapping and intersecting lines. She also began to experiment with the use of color and texture, and to consider how these elements could be used to enhance the overall impact of the design. The final result was a series of abstract drawings that were both visually striking and conceptually rich, demonstrating the power and versatility of the non-pictorial language that the designer had created.



iations test the variables, further limited.



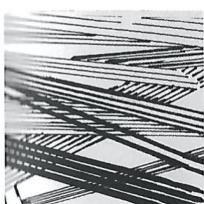
ing a marker suddenly revealed a new  
with simpler and more organic in rhythm.



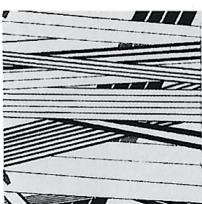
H A controlled version of the new language, using ruling pen



K A refined composition merges aspects of G, I, and J.



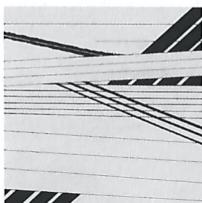
H Visualizing the language with weight progression for greater contrast



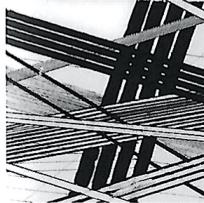
L Fewer weight and spacing differences; lighter elements obscure dark ones



I Examining a greater diversity of angles, weights, and spacing

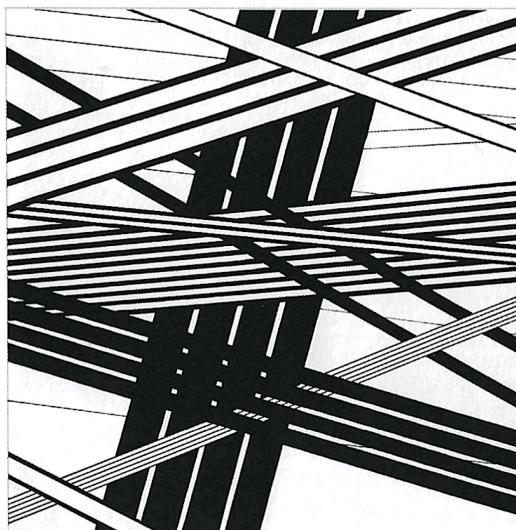


M Variables explored in K and L pushed to greater extremes

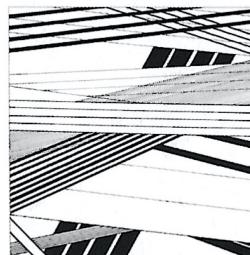


J Even more extreme contrasts combine with overlaps of light elements on dark ones for more ambiguous space.

Following this unexpected evolutionary leap, the designer continued simultaneous construction/testing of line compositions: comparing progressions in weight /H/ with alternations /I/; radically divergent angles /J, L/ with those angled more subtly /G, L/; dramatically varied weights /J/ versus similarity of weight /G, M/; differing overlap conditions between foreground and background elements /J, K, L/ ; and differing degrees of complexity and activity /G, I, L, M/.



N The final base composition



O Selecting these specific variations from among those available created a clear progression among variables to define a sequence: darker to lighter, dynamic to static, multiple weights to fewer, and increased obscuring.

## Refinement

From among roughly 30 versions, the designer selected three /N–O/ whose basic compositions together suggested a progression from light to dark. She refined the language by defining a set number of line weights and spacing intervals and, from image to image, simplified the number of elements and weight changes in stark, even jumps.

Drawing  
/for Graphic  
Design  
Processes

The Search:  
Ideation and  
Resolution



### Letter/Icon Logo Development TacticalMagic United States

The goal was to design a logo for an animal rescue organization.



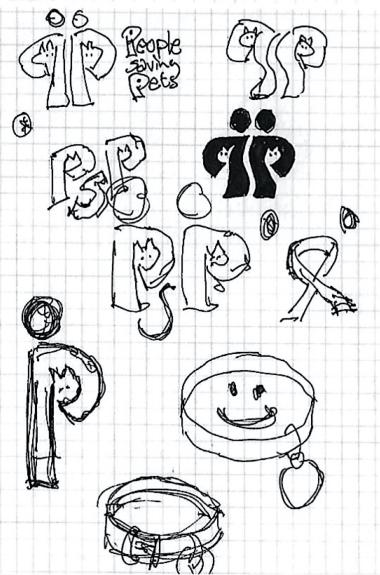
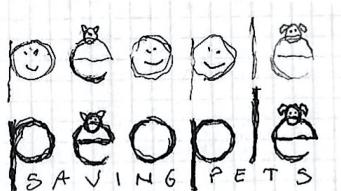
A A wall of extremely varied options produced by the design team explored pictorial and nonpictorial possibilities.

### Exploration

A team of designers developed numerous concepts spanning a range of approaches: icons, symbols, letter marks, wordmarks, emblems, and combinations thereof. Rough images were reviewed together /A/ to compare their respective qualities; one concept was selected as capturing the essence of the organization's mission—a figure protectively holding a cat—in a bold, letter-based form /C/.

### Focus

The process for the chosen concept began earlier /B/, already concentrated on typographic possibilities. In early sketches, the designer made a decision to limit the primary form to the important initial letters of the client's name and noticed that the shape of the letter's bowl and its counter could create a space for an icon. While several sketches examine the interaction of two figures, it became clear that a single figure/letter /C, D/ would make a simpler, more immediate impression and still be meaningful relative to both of the Ps (people and pets) in the organization's name.



C The first constructions maintained the integrity of the P form most clearly.



D A rougher sketch organizes the forms with greater vitality and more clearly suggests the figural form.

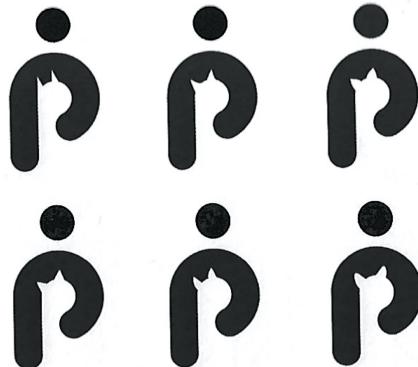
## Construction

The *P* form was initially built more conventionally, maintaining its strictly typographic structure and emphasizing the icon form created by the counter /C, D/. Adding a ball serif suggested the human figure more clearly, but resulted in an awkward gesture. Separating the ball as a dot freed the designer to position it above the *P* form; this strategy merged letter and figure more succinctly /D/ and produced a more stable, protective quality. The terminals of the letter were further rounded to correspond to the dot-like elements, as well as to soften the form, making it friendlier.

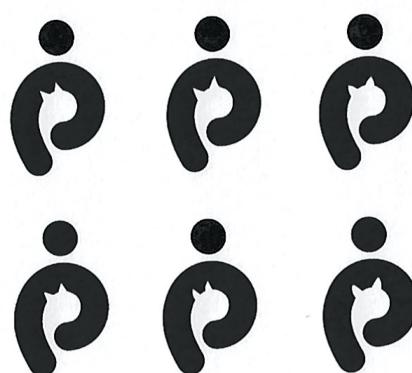
## Testing

Once the basic form was constructed, the designer explored options for curving gesture to humanize the form. An extremely gestural version /E/ was eliminated because it weakened the letter's stroke weights and threw the figure's stability off balance. The two remaining alternatives—one with a straight vertical stem /F/ and the other with a continuously curving profile /G/—were compared together in a series of variations that explored the size and shape of the interior icon, ear shapes, and spacing.

E This refined, almost completely curvilinear version, was tested against earlier versions of those shown in F and G, but discarded as not legible enough.



F The designers tested shaping and proportions of the cat form's ears and head in the version with the straight vertical.



G The curved-arm version ultimately seemed more gestural and welcoming; it underwent the same extensive testing of the reversed cat form's ears and head.

## Refinement

The curved version was chosen as friendlier and more protective; the ears of the cat icon were drawn turned to follow the gesture of the interior curve of the *P*'s main stem, itself straightened very slightly to reinforce the letter structure /H/. A sans serif with rounded terminals for the typographic component /I/ supports the curvilinear syntax of the mark and imparts a quietly playful quality.



H The final mark offers strong gesture and contrast along with stability.



I The accompanying logotype consists of a rounded-terminal sans serif face.

uctions maintained the form most clearly.



ch organizes the forms with  
nd more clearly suggests the



**Custom Display Face**  
Dana Tandoi, SUNY Purchase  
United States

The designer's goal was to create an alphabet that would relate conceptually to an assigned client's mission—protecting waterfowl and wetlands.

### Exploration

The designer determined early that conventional letter-drawing and tools /A/ might not yield as interesting or conceptual a face as she felt was needed, experimenting instead with other methods. Ink and toner, interacted upon by water /B/, as well as letters made from bread, ripped leaves, and grass /C,D/ introduced unusual contouring, along with narratives about the environment and eating habits of waterfowl.

### Focus

One of the letter constructions made from heavier grass and twigs was inked, then printed and dragged /E/ to create a dramatically organic contour whose details also seemed reminiscent of bird tracks, legs, and beaks; the designer chose this direction as most interesting.



A Early study with a flat brush



B A drawing with felt pen subjected to water



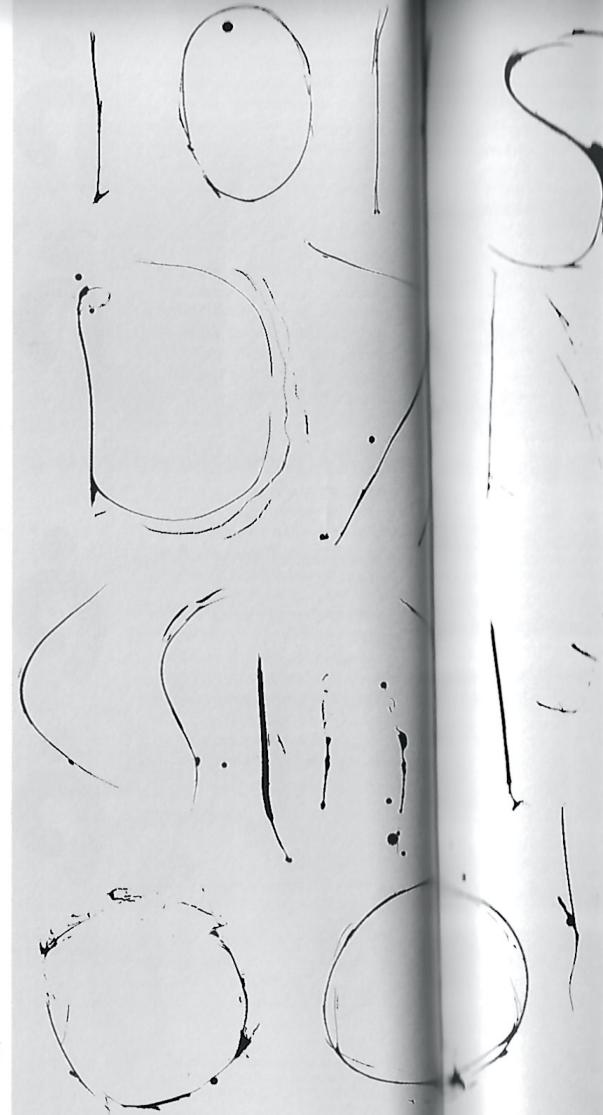
C Forms made from ripped bread (top) and ripped leaves (bottom)



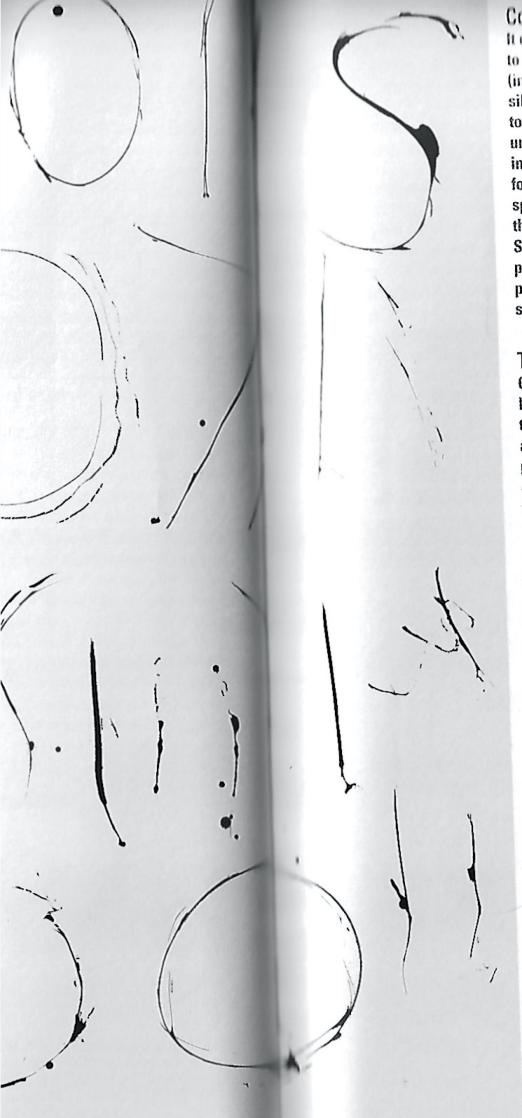
D Forms made from grasses proved overly light in weight.



E When inked and printed, the grasses yielded very interesting new forms.



F The designer made an extensive "library" of stroke and detail shapes, both by direct impression and dragging.



## Construction

It quickly became clear that trying to construct the letters "at a stroke" (in one shot), would be nearly impossible—especially if also attempting to achieve proportional and stylistic unity among them. The designer instead created a library /F/ of printed forms—straight lines, angles, curves, splotches, and independent details—then scanned them at high resolution. She selected basic elements for the primary character shapes, cutting and pasting details in various positions to support each letter's structure.

## Testing

Once both sets of uppercase and lowercase letters were constructed, the designer began a process of altering individual stroke weights and placement of details /G/ to establish a consistent rhythm of variation among the letters for stylistic unity /H/.

## Refinement

In the final stage of the alphabet's development, the letters spelling the client organization's name were ordered in various ways to compare rhythmic relationships; details were further enlarged or reduced, strokes thickened or thinned, and edges simplified for a stronger impression. The designer composed a sample configuration as a kind of logo /I/ in which changing letter sizes, baseline relationships, and the introduction of alternate characters create a lively, organic form.



G After roughing out each letter's structure with elements from the library, the designer adjusted the combinations, scales, and complexity of elements to create a consistent variation in texture across the alphabet.

Dd Kk Ll Uu  
Tt Ee Ii Mm  
Ss Nn Cc

H The final set of uppercase and lowercase characters



I The designer constructed a logotype to experiment with the refined forms.

Drawing  
/for Graphic Design  
Processes  
The Search:  
Ideation and Resolution

**Testing**  
The design  
constructed  
back and b  
and white  
weight ref  
embellish  
of the fish  
bring visu  
greater de



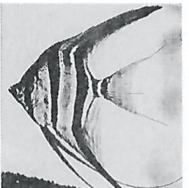
### Stylized Translation

Lauren Reese, UArts United States

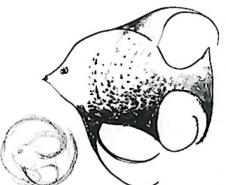
The goal was to represent the essence of an object's form and express its function.

### Exploration

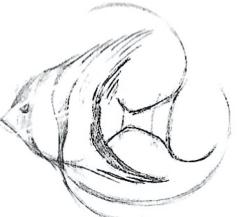
With translation, exploration distills the essential structure of a subject—in this study, a fish—as a unique, expressive form whose reductive syntax conveys a relevant idea. The designer began by attempting to understand the fish's basic attributes with studies from reference /A/.



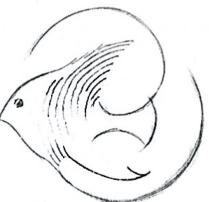
A Photocopy of a photographic image used for reference



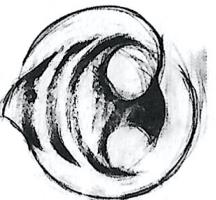
B The first quick study captured useful detail, but the form's structure was unconvincing and in need of study.



C Naturalistic study of the form



D Extreme reduction focuses on circular line movement and defining overall contour.



E Merging qualities of A and B with greater weight contrast in the lines

A first sketch with pen proved illustrative and demonstrated misperception of the subject's proportions /B/. Careful construction, comparing each part's relationship to others, resulted in an accurately naturalistic structure after in-depth study /C/. At the same time, the designer's

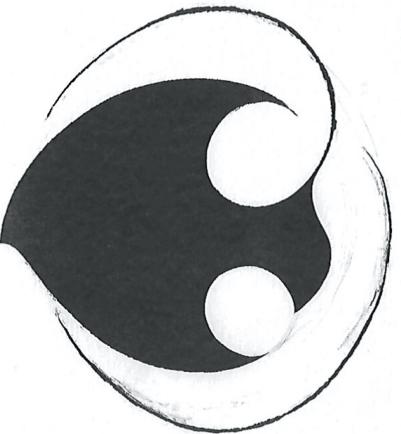
own gesture (and memory of curve activity in the first sketch /B/) engendered a swirling extension of the fish's fins that not only integrated its shape with exterior negative space, but evoked the animal's movement within its watery habitat /D/. The designer continued to embellish the structure she had explored with relevant details—the eye, stripes, and exaggerated line/mass contrast for greater description /E/.

### Focus

Having gained this understanding of the form at a more complex level, the designer focused on the basic mass of the fish's contour and the extension of the linear curves as the most fundamental expression of the form.

### Construction

Working with casein paint and alternating between black and white, the designer composed the primary shapes /F/, adjusting the proportions of positive and negative shapes and the modulation of weight among the curves to arrive at a sturdy, generally resolved template for further development. With respect to the source subject's structure, and to enhance a sense of its typically forward movement, the lower fin's terminus was shifted to the left of that of the top fin; the lower curve curls back upward to optically flow into that of the upper fin; and the upper curve was weighted to pull the eye from the tail back into the form's origin at the left.



F The base form, constructed with black and white paint, then photocopied as a template for further study

G Heavy  
textural su

H A test of  
surface m

I Margin  
of II with

### Testing

The designer photocopied the constructed base and, again working back and forth between both black and white paint, altered details, weight relationships, and tested embellishments to the surface plane of the fish's body for detail that could bring visual contrast, as well as greater description, to the form:

textural motifs /G, H/ graduated from dark to light to suggest the fish's scales; stripes to capture characteristic markings /H–L/, visualized as progressions of line weights and as continuous lines that modulated in thickness.

### Construction

Working with casein paint and alternating between black and white, the designer composed the primary shapes /F/, adjusting the proportions of positive and negative shapes and the modulation of weight among the curves to arrive at a sturdy, generally resolved template for further development. With respect to the source subject's structure, and to enhance a sense of its typically forward movement, the lower fin's terminus was shifted to the left of that of the top fin; the lower curve curls back upward to optically flow into that of the upper fin; and the upper curve was weighted to pull the eye from the tail back into the form's origin at the left.



With black and white paint, then photocopied



H Heavier masses combine with textural surface activity



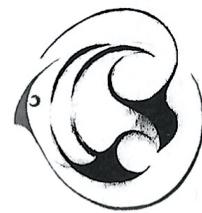
J Testing fewer curve elements in the body



I A test of the line pattern to help articulate surface and structure simultaneously



K Waving lines and greater mass in the face more decisively integrate parts



L Merging (and simplifying) the linear elements of H with the heavier masses of G



M The final translation

### Refinement

As a result of her tests, the designer found a language that was primarily linear, changing in weight and approaching planar mass at times, which would create rhythmic contrast and more cohesively integrate the large area of the body with more delicate structures. Articulating curved lines across the body's surface as waves /K, L/, rather than following the front curve established by the head /J/, added greater movement and continuity among the elements. Even the eye, for example, is linear, yet creates a perception of spherical volume while corresponding to the surrounding syntax.

Weight emphasis was pushed downward in the face, rightward in the lower fin, then upward out of the tail to ensure continuous optical circulation; the eye is encouraged to circle reflexively around the form, emphasizing the impression of the fish's movement in water /M/.