

TRADITIONAL DRAWING TYPES



This chapter identifies the basic varieties of traditional drawing, which range from simple sketches to sophisticated presentation renderings. Any drawing is the result of a series of decisions one makes about the subject and how to communicate it. Consider the three steps of drawing: **identify** the subject information or drawing data, **construct** the drawing framework, and **illustrate** the final image. Apply this process to creating a quick drawing in a sketchbook or developing a rendering for a design project. By breaking the drawing process down into a series of small but strategic choices, you will build confidence in your visualization skills and overcome the fear of drawing that so many designers experience.



12

11 Simple shade and shadow technique. This 8½ x 14" ink on Mylar drawing was first outlined and then shadowed with diagonal lines parallel to one another. Windows are filled in black to contrast with the mullions.

12 Practice sketching people. I created four smaller images on one page to shorten the drawing time, as the people I was drawing were changing positions.

Sketching

One fundamental method of drawing is from direct observation. It is enjoyable to draw plain air, with a subject in front of you to study. But when there is no base information available, you can also sketch from your imagination. This takes some practice and confidence, but it is possible to produce great drawings without any references—cartoon illustrators do it every day.

Purchase a small sketchbook and carry it around with you. Get into the habit of sketching everyday scenes and design ideas for projects. Set aside time during vacations and business trips to sketch buildings or scenes (Figs. 1.13–1.14). Your drawings will become an unforgettable record of that place and time.



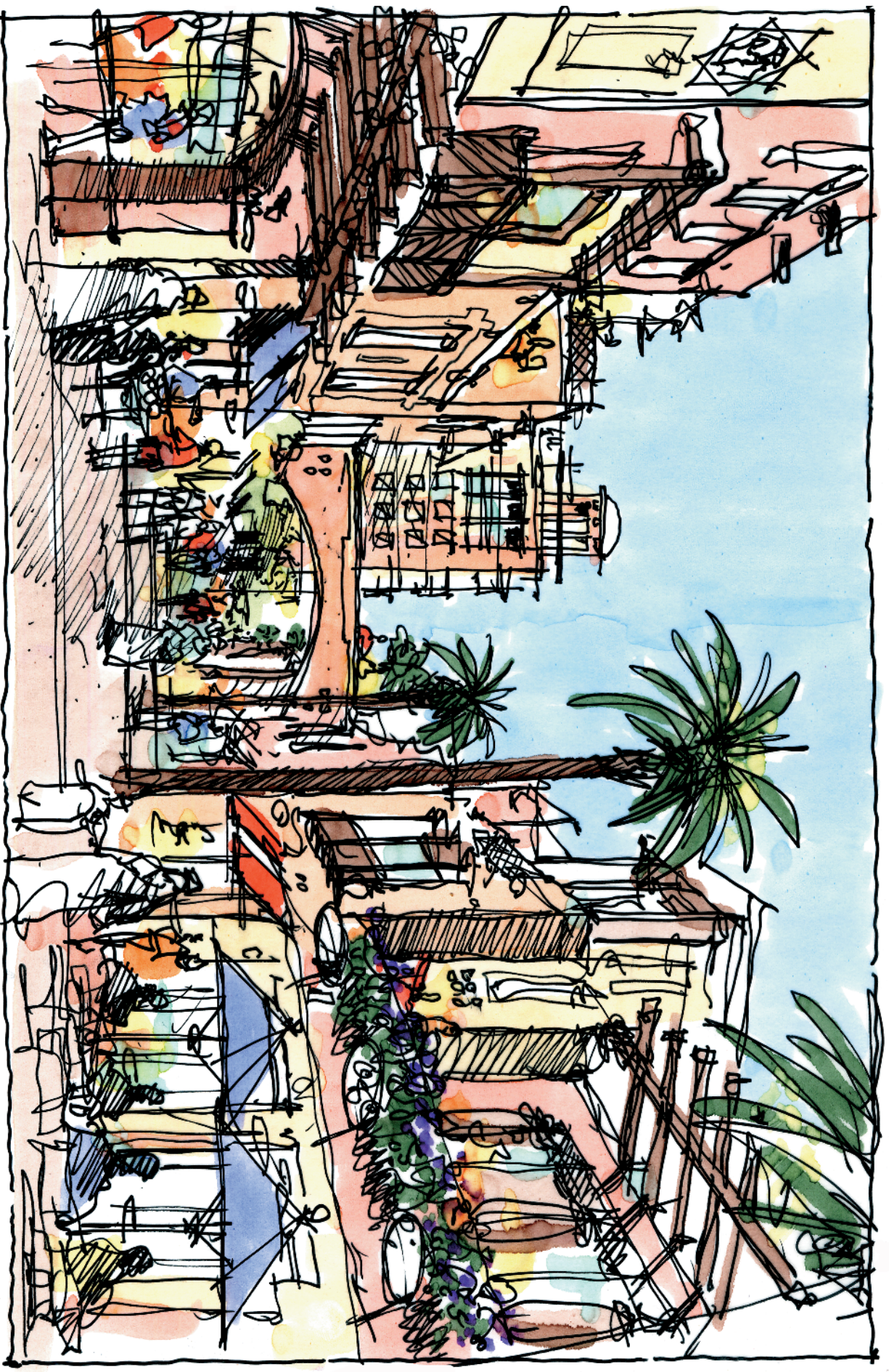
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13 Draw the entire town. This sketch, from the viewpoint of the coastal town's pier, took about an hour. Complex window patterns and white walls create an architectural texture that contrasts with the rough natural textures of the mountain above the town.

14 Small watercolor sketches are fast. Watercolor sets and sketch pads are available in small travel sizes. This watercolor sketch at Yellowstone National Park captures the architecture and surrounding landscape nicely. *Watercolor by Karin Pitman, AIA, ASLA.*



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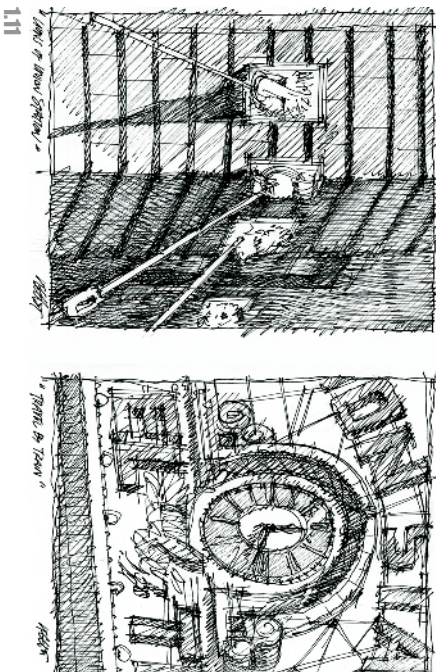
Observation Drawings

Stop, look, and draw

Purchase a small sketch pad or sketchbook (9 x 12" or smaller) and take it on your next holiday or business trip. Sitting still will not be easy, but dedicate some time to sketching an interesting scene or building detail. Many people develop the discipline of making observation sketches and design notes in journals; these then become ongoing records of their creative process.

Drawing from Real Life

Take a sketchbook outside on a warm afternoon and start drawing. It will be a lot of fun and provide you with valuable drawing practice, which you can never have enough of. Organize a group of creative friends and go to an interesting place together to sketch for an afternoon. Then do it again. **Observation drawings** are created simply by looking at your subject and drawing it, without using any tools other than your pencil or pen. The object you draw might be a view you want to capture in your sketchbook, an architectural model, or even a photograph that you use as reference.



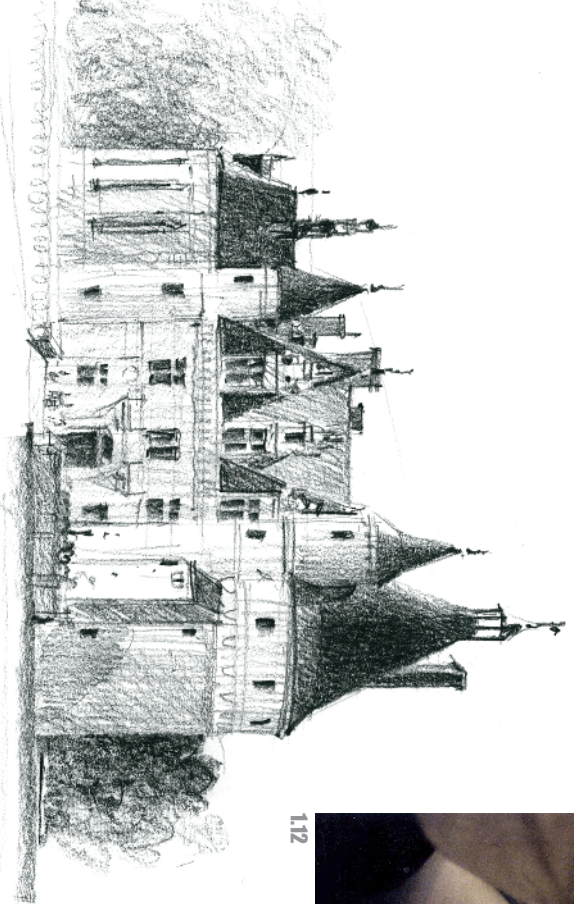
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110 Travel sketch. This observational drawing of Châteaude Cheronceau was done in about 30 minutes during a vacation in France. Prismacolor pencil in an 8 x 10" Strathmore 400 sketchbook. *Drawing by Paul Stevenson Oles, FAIA.*

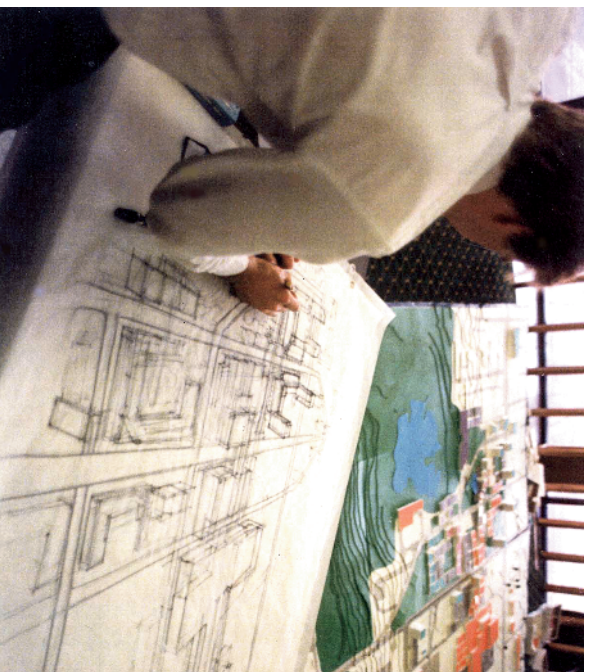
111 Quick lunch-hour sketches. This pair of 5 x 6½" sketches of a historic train station was drawn while eating lunch across the street. The small size and scribble sketch technique kept the drawings quick and loose. Instead of capturing the entire building, these sketches show tightly cropped portions of its historic detail. Permanent ink pen on bond paper.

112 Direct observation perspective sketch. A large study model of a regional mall, park, and civic center is being sketched directly from an angle that establishes the perspective and massing of the buildings. 30 x 40" felt-tip pen on vellum. This direct drawing technique may not be as accurate as sketching from an enlarged photograph or computer model, but it is quick and accurate enough for conceptual presentations.

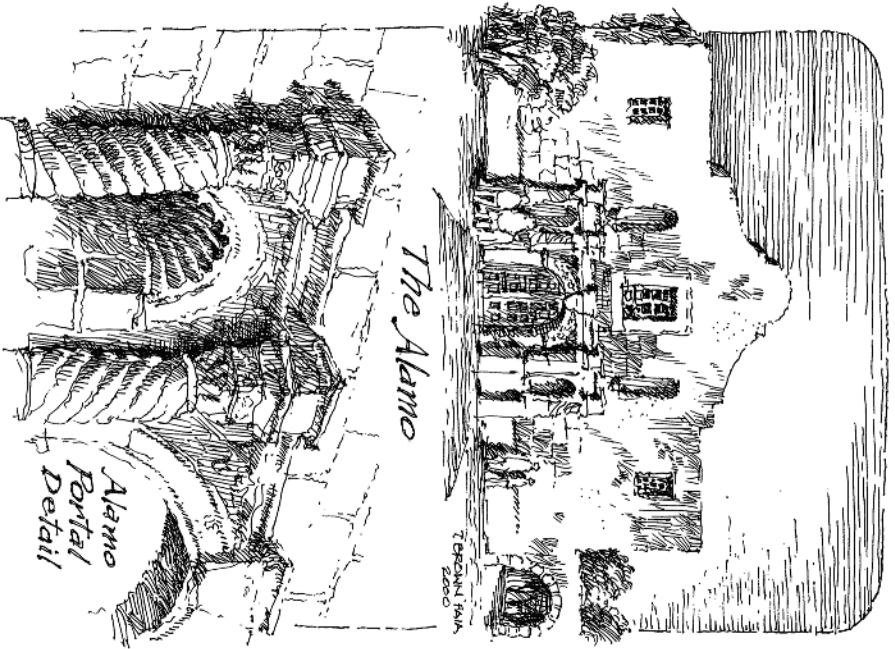
113, 114 Architectural sketchbook. This talented architect has been filling sketchbooks with drawings since the 1960s, beginning as an architectural student traveling in Europe, then as a soldier in Vietnam, as a traveler in South America, and as a keen observer during a long professional career. His 8½ x 11" sketchbook is always with him. The observation sketches on the facing page are of famous buildings that he drew in his free time during business trips. He used rolling-ball pens because of the consistency of their fine lines—and because they are easy to draw with. *Drawings by Terrance Brown, FAIA.*



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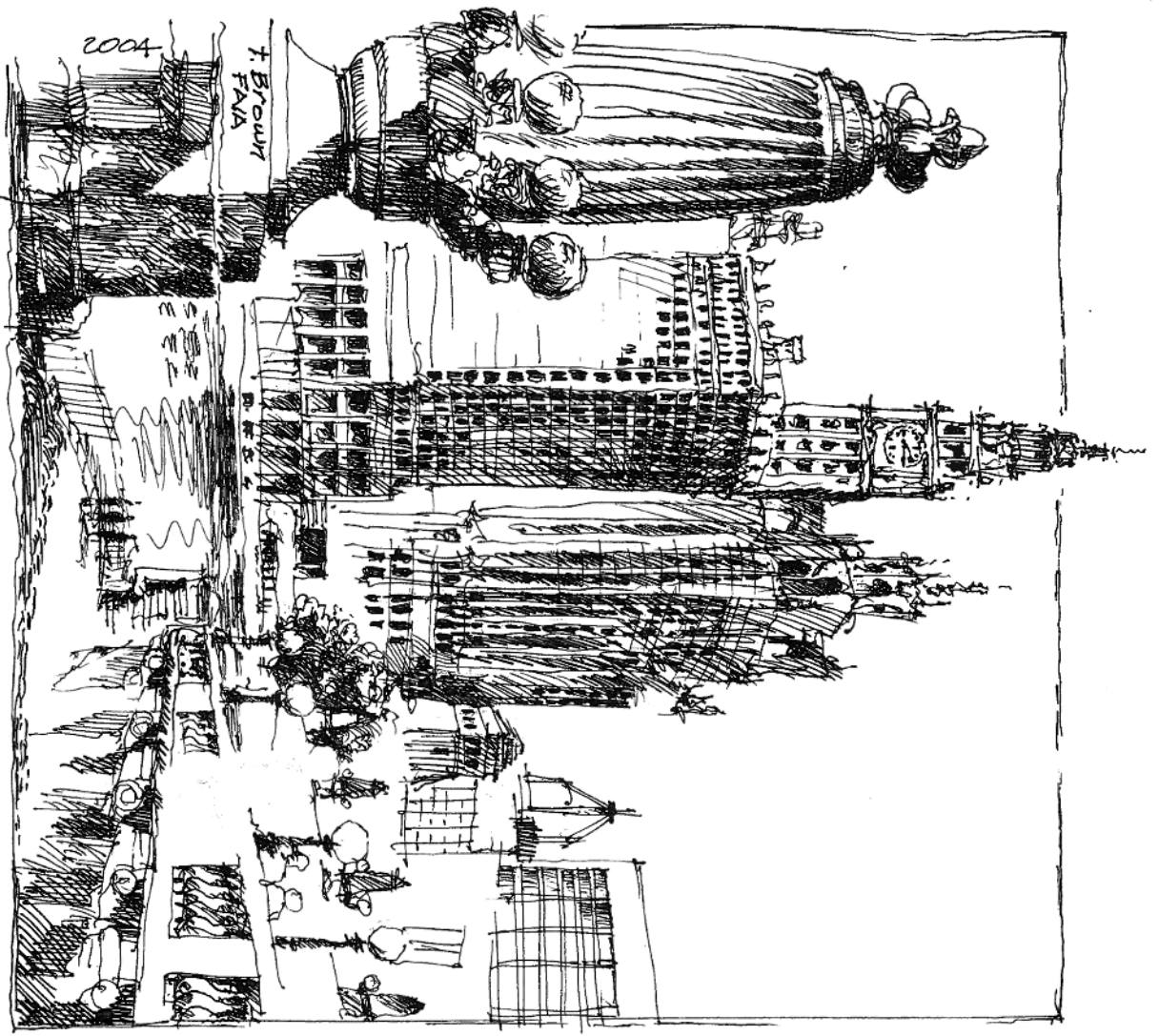
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113

“No amount of skillful invention can replace the essential element of imagination”

—EDWARD HOPPER



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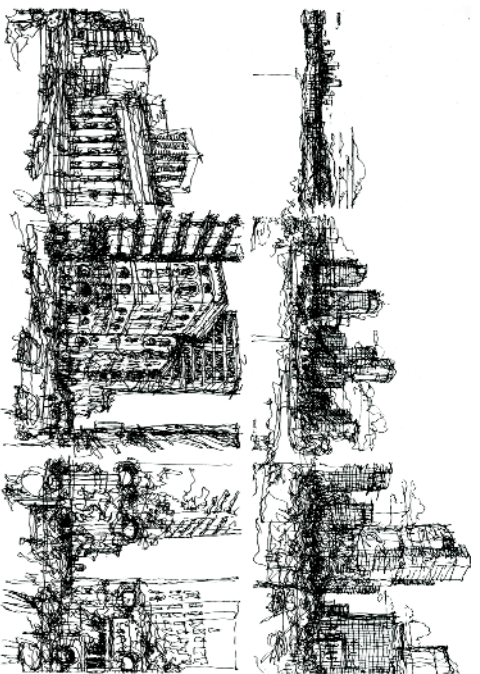
CHICAGO
Wrigley Bldg. & Tribune Tower
Chicago River

115 Walk through downtown. This series of images was based on photographs taken at different locations. Using the severe scribble technique enabled each segment to be drawn in about 10 minutes. They show basic massing and movement without any detail. 18 x 18" permanent ink on Mylar.

116 New uses for an old neighborhood. This sketch illustrates simple modifications to the sidewalk, graphics, storefront, side yard, and cars that communicate the potential of renovating the mixed-use street. Using the photo as a reference for existing information added believability to the 8½ x 11" drawing. Felt-tip pen on vellum with Chartpak AD marker color.

117 Visualize a sketch when you take the picture. This building was a perfect subject for a sketch showing architectural and streetscape improvements. The photo was used as a reference to approximate the perspective and building proportions.

118 Capture the moment in a sketch. This Italian dog was looking for tourist handouts and willing to stand still while I sketched him patiently waiting at the stairway. 6 x 9" pencil drawing on bond paper.



Control Your Drawing Time and Size

Observation drawings involve selective editing; you must control the amount of time you spend making the drawing as well as how much detail you put into its delineation. Give yourself a short time limit to sketch. Then compare your results with another drawing that took longer. The comparison may surprise you. In many instances, a sketch created quickly represents the subject more successfully than a sketch that took longer to create. Given a short amount of time, you may only trace the edges and shapes of the subject, filling them with tone and texture later. The expressive movement found in these gesture drawings is rich in emotion and free from the constraints of technical drawings.

It is also important to determine the size of your sketch. Standard field sketchbooks tend to be 7 x 10" or 9 x 12". The smaller paper size is more portable and forces you to draw small, saving time. Select a drawing pen or pencil that is good for sketching in a small format (see pp. 80–85).

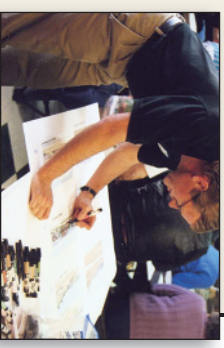
Drawing from Photographs

Since you will not usually have the luxury of drawing from life, take a picture instead! Grab a digital camera and take a series of reference photographs to draw from back in the studio. Study the photos and block out your drawing using the information that you see.



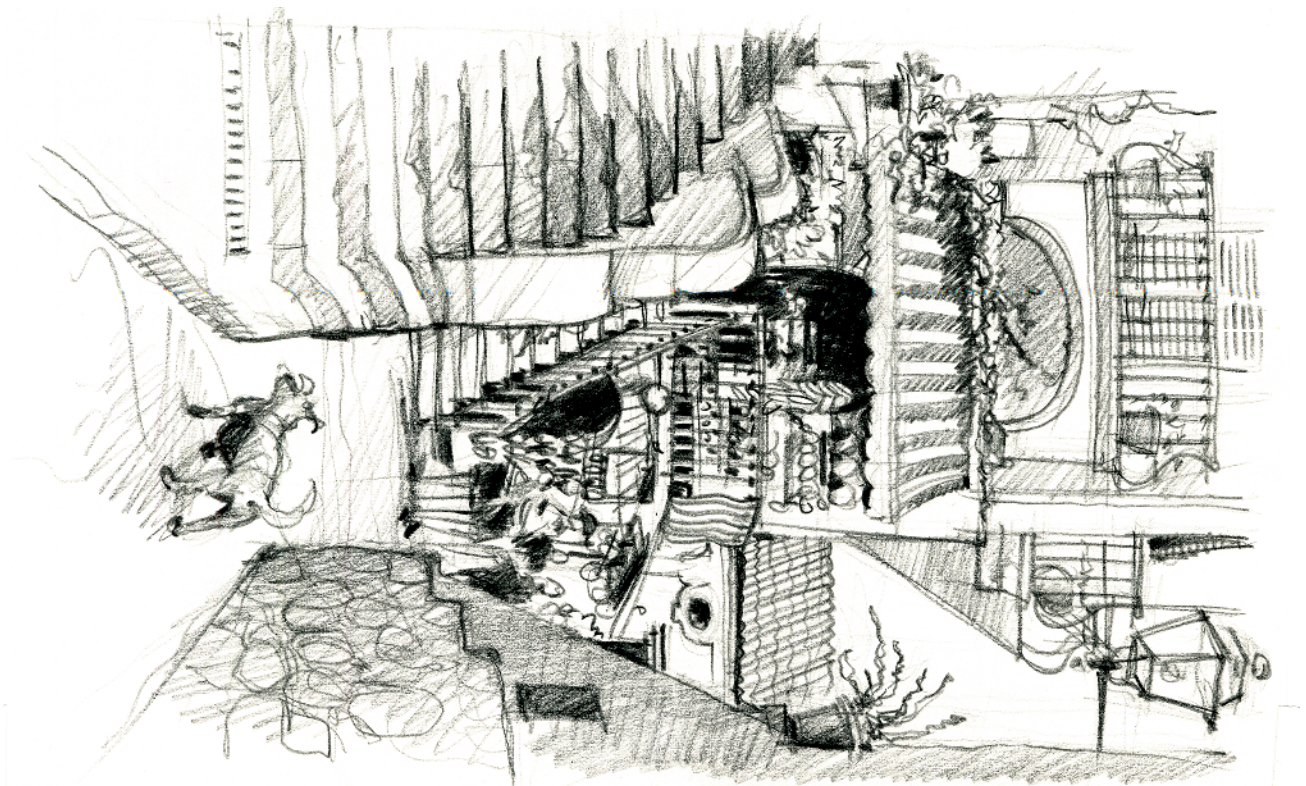
Quick Tips Observation Drawing

- If you are drawing outdoors, clip your paper to a piece of foam core or heavy cardboard, which will serve as a windproof drawing table.
- Don't overdraw your subject. Visualize the most important information, simplify and outline the less important objects, and leave the unnecessary data out of the drawing.
- Create new information as you draw. You are not obligated to draw your subject verbatim unless you've been told to do so. Go ahead and alter, embellish, and modify the object you are drawing. Drawing is a creative process.
- If you have trouble drawing objects such as furniture or cars, mass out the subject as a simple rectangular "shoe box" form first and then gradually block in the details.
- Edit out unnecessary items and show only the information that is important to your design story. For example, if you are drawing a natural landscape and an ugly road and bridge are in the view, just leave them out.
- There is no harm in using a ruler or drafting triangle to help you keep lines straight. It's easy to accidentally draw crooked lines, which can diminish the quality of your drawing.
- Tilt your drawing board up so you can work with your face square to the paper. If the board is flat and you are looking at it from a severe angle, the image may stretch out of proportion.
- Record the amount of time it takes for you to create an observation drawing. Draw the same subject again in less time and compare the differences between the two images.



OBSERVATION DRAWING PROJECT

Select an outdoor scene that has a variety of man-made and natural shapes, such as a street scene in your town that has trees, storefronts, people, and other activity. Make a sketch of your subject in 10 minutes or less. The sketch should be black-and-white and no larger than 6 x 9". Put that sketch aside and make another sketch of the same view in 5 minutes or less. Then make a third sketch of the scene in 1 minute. Compare the three sketches.



Imagination Drawings

Use Your Mind's Eye

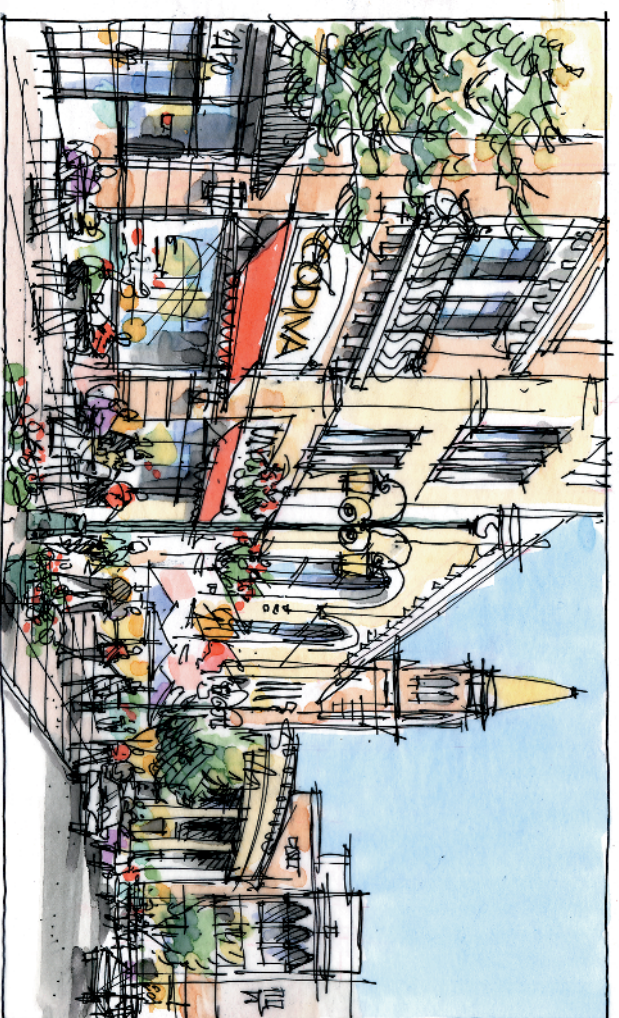
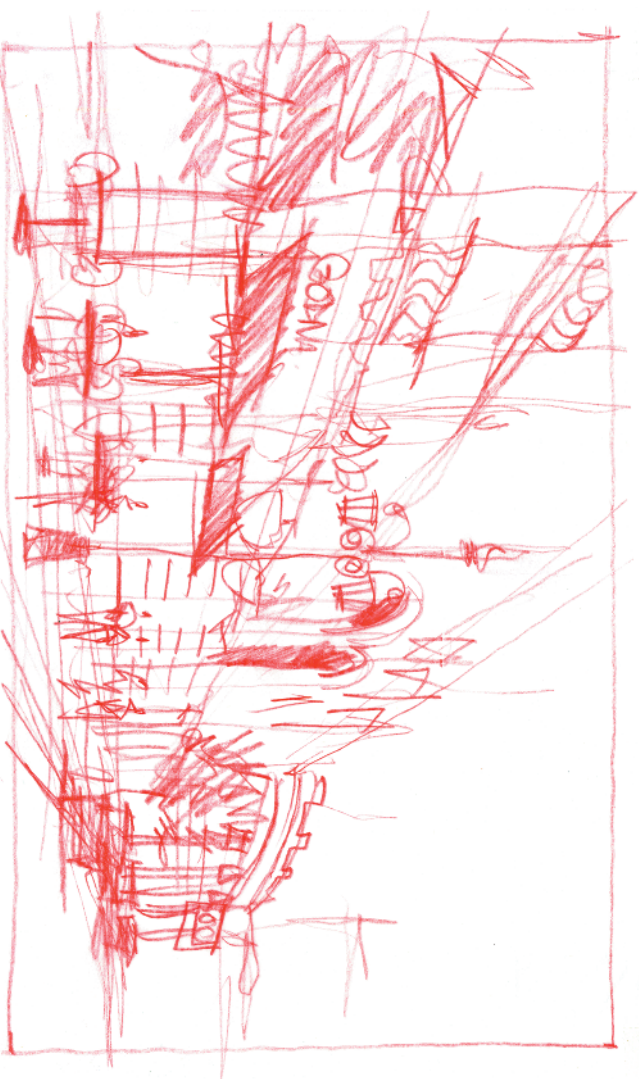
Imagination drawings are created strictly from your mind's eye, using practically no visual references. Drawing this way is often called cartooning or storyboarding. Such drawings can be generated quickly, without a lot of detail. They are often used for design feedback and to form the base information for more finished drawings.

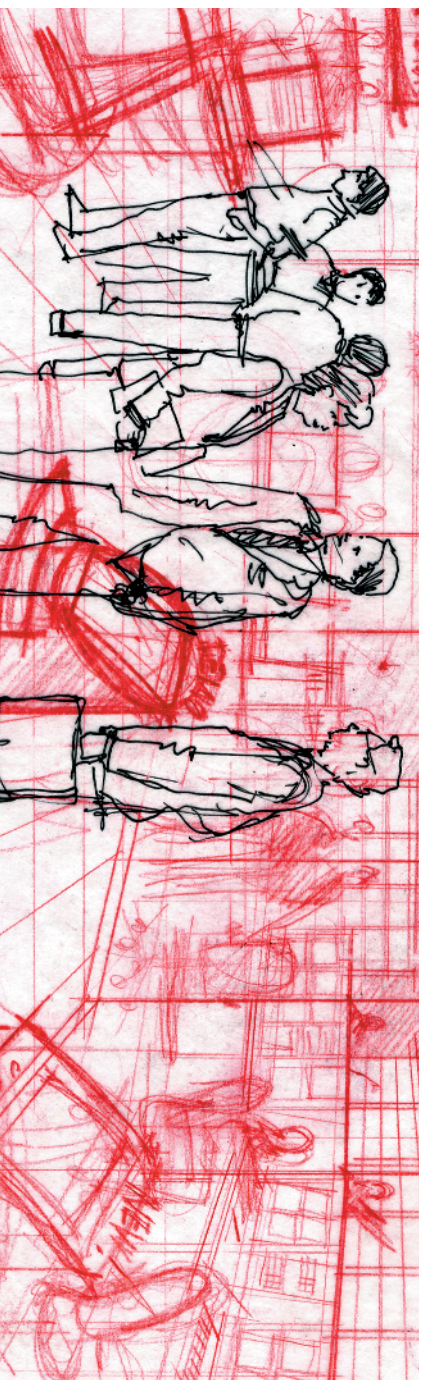
The film industry has always used storyboards for visualizing various scenes and set designs. Walls covered with imagination drawings from numerous illustrators help directors understand and visualize a film early on, in the project's concept and development phase. Architectural design and planning projects often begin with many imagination drawings developed in the concept phase of the project. These multiple images can visualize a sequence like traveling through a building or down a public street. Storyboards can also identify a variety of different viewpoints for the project that can be edited and eventually become more developed drawings.

During an architectural charrette early in the design process for a new science museum, I storyboarded ideas on 8½ x 11" paper as we conceptualized the museum (Figs. 1.43–1.54). I produced over fifteen sketches in the afternoon workshop. Although the drawings were extremely rough, they allowed everyone to clearly understand the design concepts. Later I was able to make the final drawings without additional input from the group. Depending on the complexity of the image, I might lightly block out the drawing with pencil and then apply a darker layer of pencil or ink for the final sketch.

**"Imagination is more
important than knowledge."**

—ALBERT EINSTEIN





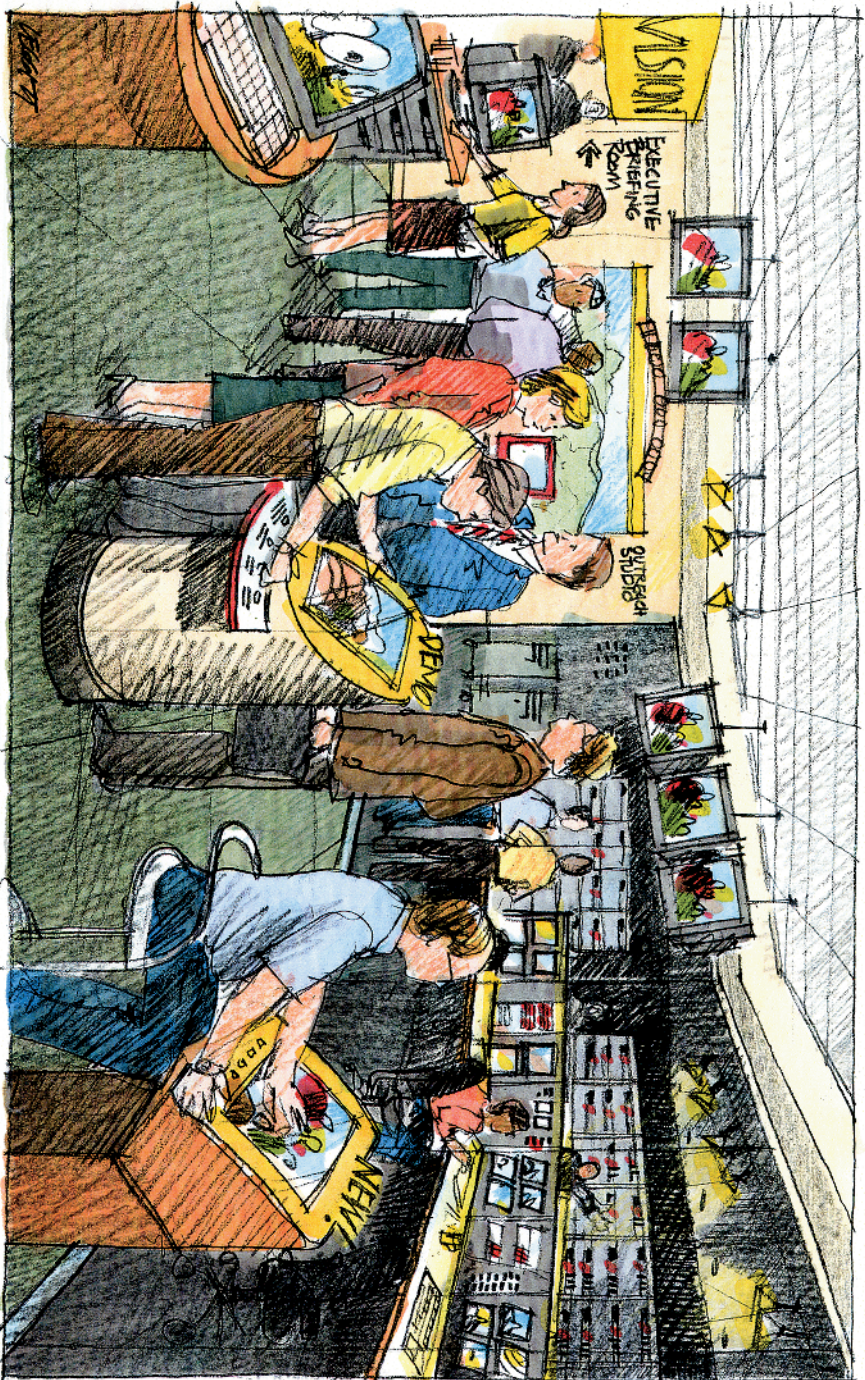
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119 Pencil mock-up of a retail street. This 6 x 9" soft red pencil on trace is a one-point, eye-level sketch of a commercial streetscape. It was one of many quick thumbnail sketches visualizing different areas of a development.

120 Final retail street drawing. This drawing was traced directly over the pencil mock-up. More detail was added with a felt-tip pen on vellum. Color was added with a limited number of Chartpak AD markers.

121 Red pencil mock-up with traced people. The one-point perspective of this interior room was drawn with a Sanford Col-Erase wooden pencil. Red lines are easy to see beneath a second sheet of vellum as the final black pencil drawing is completed. People were carefully traced in ink from an entourage file, 7 x 11" on trace.

122 Markers and colored pencils add texture. The pencil drawing (Fig. 5.24) was digitally printed on presentation-weight bond paper and colored with Chartpak AD markers. Additional texture was added to the carpet and skin tones with Prismacolor pencils. A black pencil overlay on the right side of the drawing emphasizes the different lighting in the adjacent video production room.



122

123 Pencil and pen combination on paper.

This humorous imagination drawing depicts an imaginary ski resort in Southern California with the coastal highway threading beneath the structure. People ski for half a day on a plastic snow surface and surf for the other half. The 18 x 24" detailed drawing was created with a technical pen on hard-finish Bristol board; additional tone was created with a soft graphite pencil.

124 Loose hatching pattern. This 10-minute 8 x 10" sketch of an outdoor plaza is drawn with minimum detail. Shading is done almost entirely with continuous zigzag lines. Felt-tip pen on vellum.

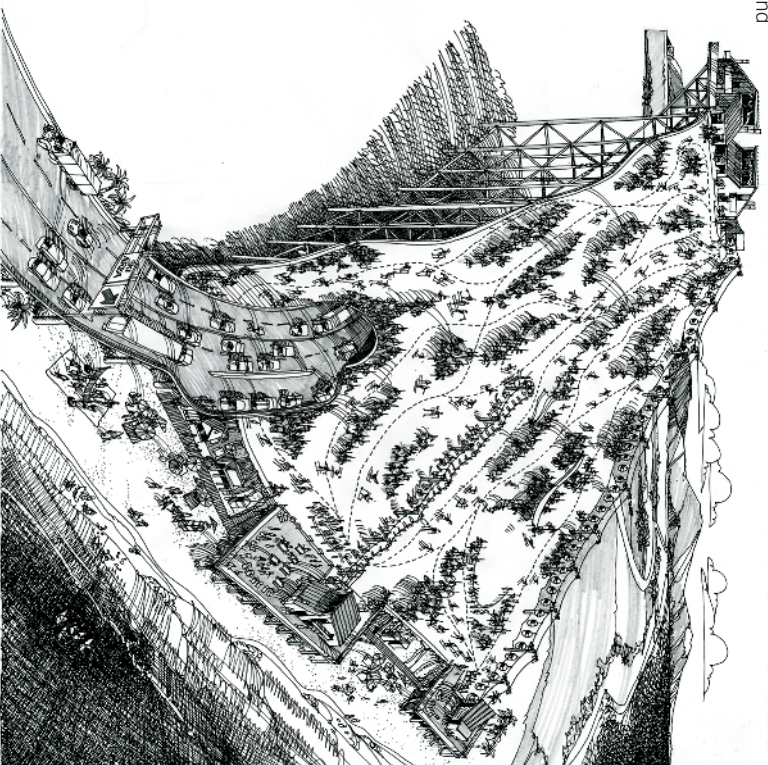
125 Zoo kiosk design. A moderate amount of detail was needed to accurately communicate the size and proportion of the exhibit structure. The drawing was one of five alternatives and began as a 1/2" = 1'-0" scale elevation. Felt-tip pen on vellum with gray Chartpak AD marker shadows.

Don't Be So Serious

Imagination drawings don't have to be serious. You can have lots of fun sketching humorous situations and even cartoons. This "light" drawing technique is very effective for newsletters or informal presentations. School or office get well or good-bye cards are perfect applications for cartoon drawings, too.

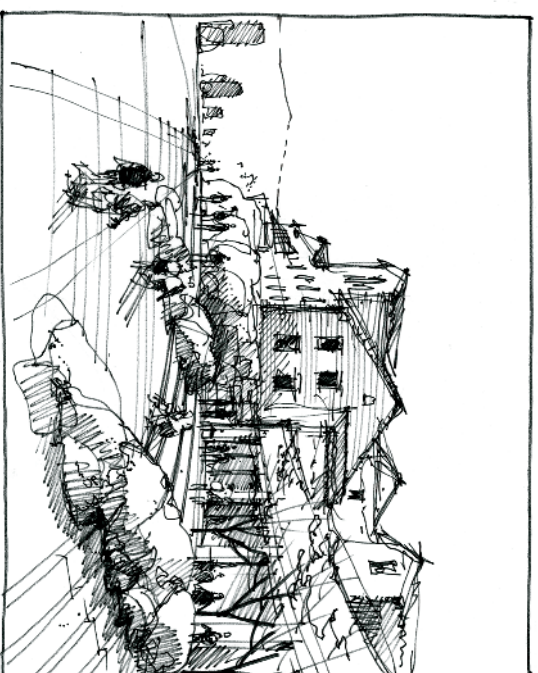
Be Aware of the Drawing Detail

When you draw from your imagination, it is easy to get trapped into showing too much detail. If you only need to communicate a rough concept, then keep the drawing fairly undeveloped. Try to make it proportionally accurate with a believable perspective view, but show as little detail as possible. The campus plaza sketch (Fig. 1.24) is an example of a drawing with minimal detail.

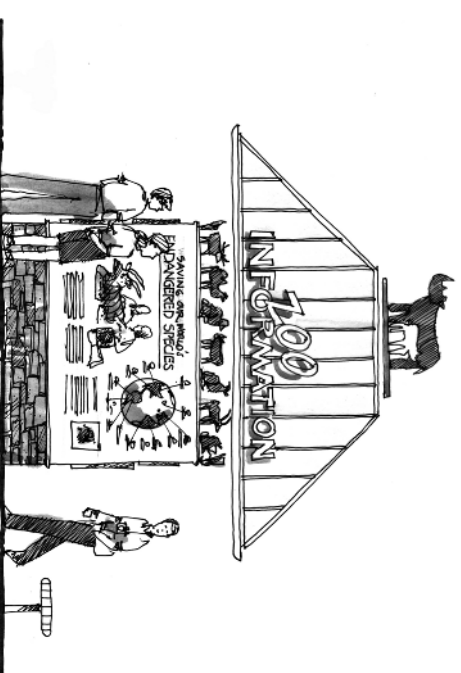


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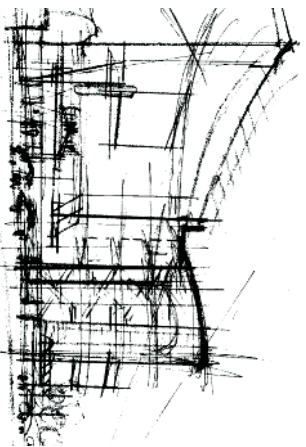
In other situations, you may need to show more detail and commitment to the design, even though no solid design direction has yet been established. For example, the quickly generated zoo information kiosk sketch (Fig. 1.25) then required more delineated signage elements and more carefully drawn proportions. (Both of these examples were used in formal client presentations.)



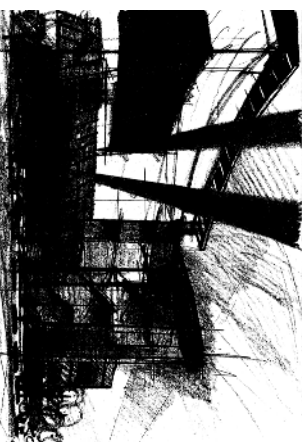
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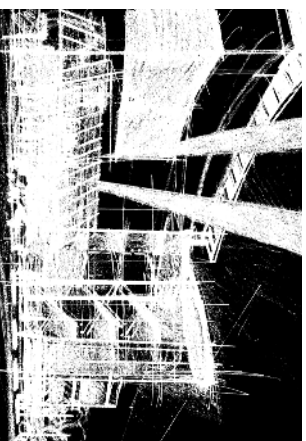
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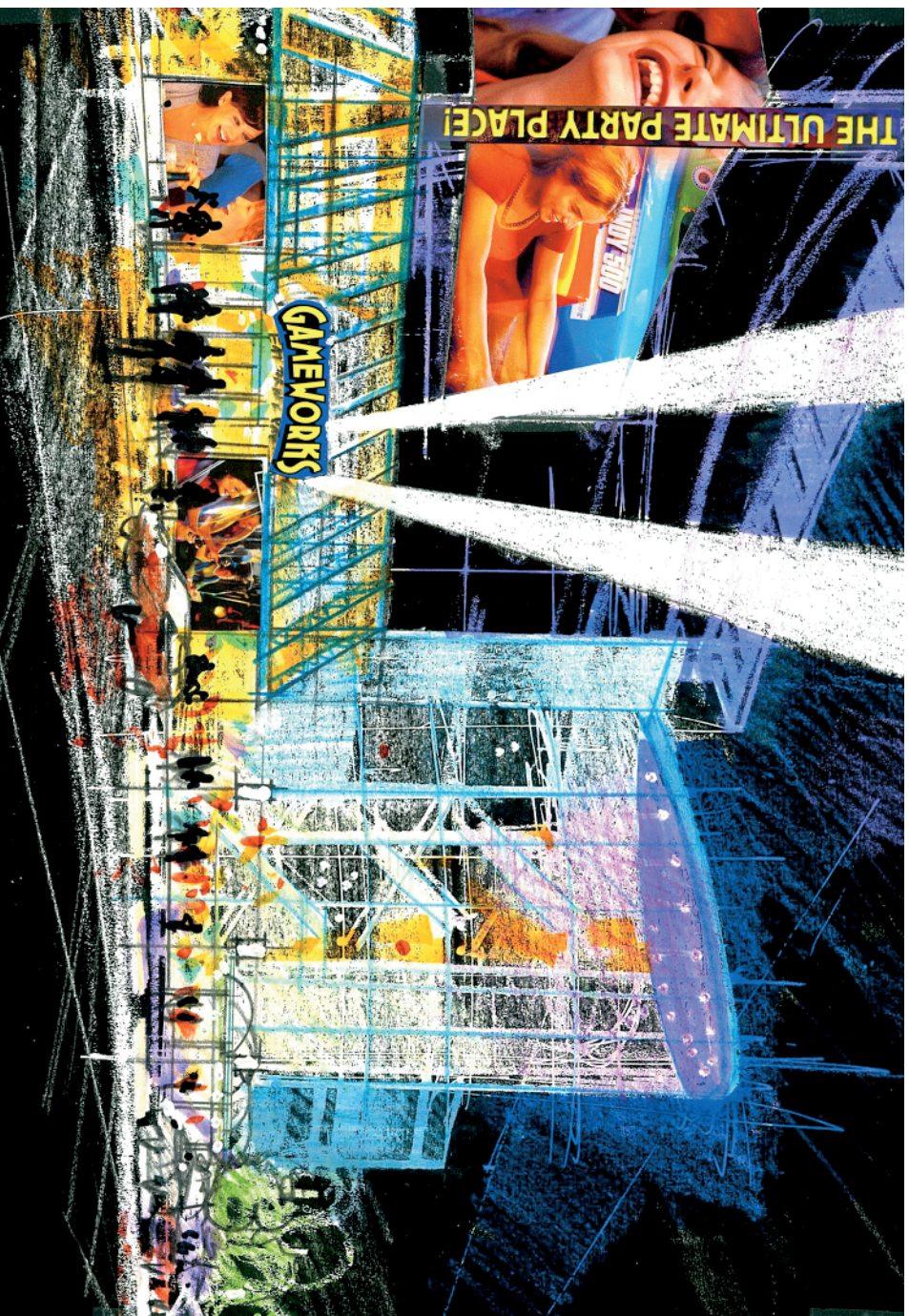
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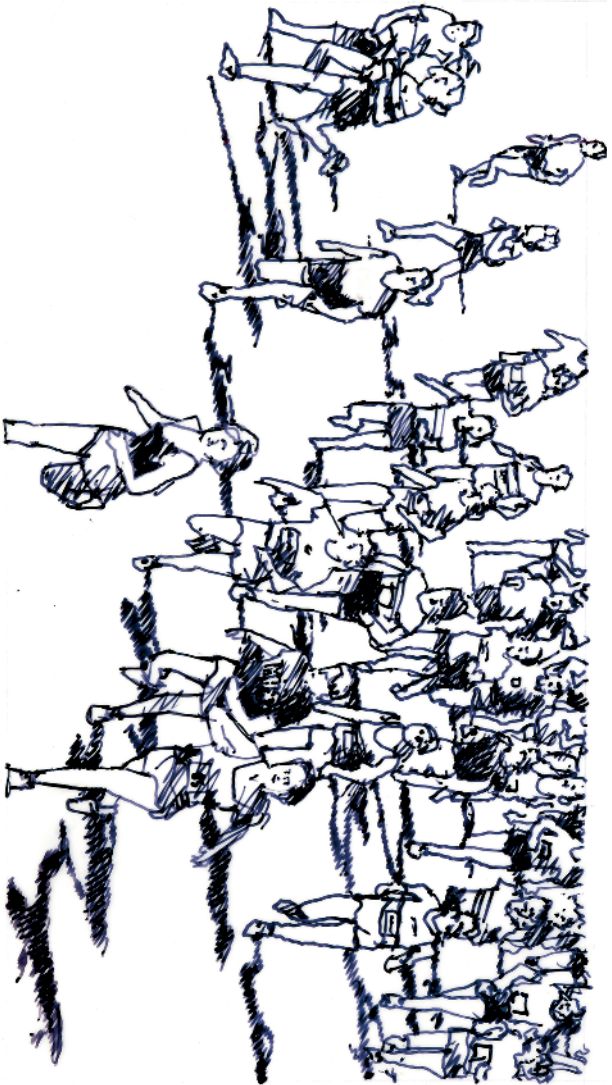
126–129 Storefront design concept. This drawing series represents an imaginative approach to quickly visualizing the dramatic nighttime lighting of a retail entrance. The process involved several drawing, scanning, and reversal steps to achieve the mixed-media solution.

126 Step 1: The initial freehand perspective was blocked out on 8½ x 11" paper with a felt-tip pen. The image was scanned and reversed in Photoshop.

127 Step 2: The reversed image was printed and additional black tone was applied with pen and pencil to those locations where building and spot lighting were anticipated.

128 Step 3: The drawing was once again scanned and reversed in Photoshop. The new image was printed on bond paper for final color and graphics.

129 Step 4: The image was colored with a combination of markers and colored pencils. A white-out pen was used to create lights and add "sparkle" to the drawing. Graphic signage and photographs were cut out from other sources and applied directly to the drawing with a glue stick. *Drawings by John Leggitt, AIA.*



130

1.30 Running race promotion. This 4 x 8" permanent ink on Mylar drawing was loosely based on a photograph, scanned, and then silk-screened on shirts to advertise a local architect's convention fun run.

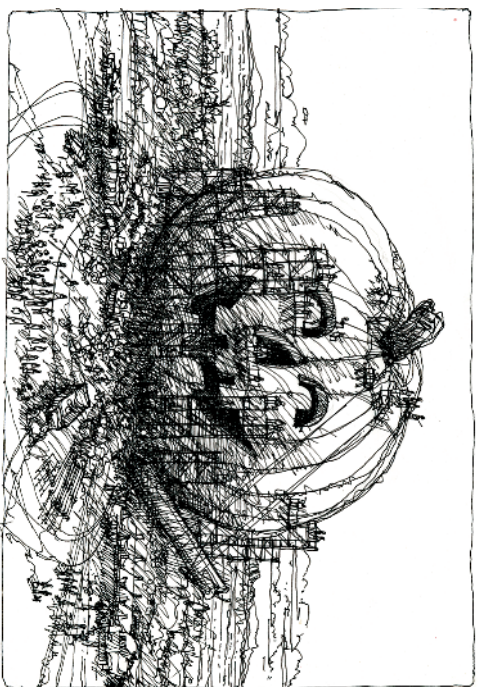
1.31 Architect's Halloween party invite.

Imagination sketch of a construction site with people carving a giant pumpkin from scaffolding. 5 x 7½" fine-point technical pen on vellum.

1.32 Global technology poster. This 8 x 10" permanent ink on Mylar drawing was first blocked out with red pencil on vellum. The drawing was used as a poster for an event featuring global communication.

1.33 Theme restaurant sketch. This quick drawing for an imaginary themed restaurant was drawn without any mock-up. 6 x 9" on trace with Pentel Sign pen; color markers with Prismacolor pencils for added tone.

1.34 Big TV. This 4 x 6" cartoon sketch reveals the growing size of televisions. Permanent ink pen on vellum.



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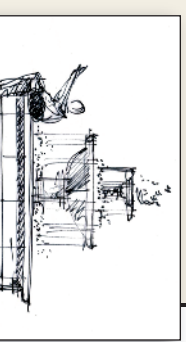


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Preferred Drawing Sizes

Ideally, imagination drawings should be between 8½ x 11" and 11 x 17". The smaller the image, the less detail it requires and the less time it takes. Two or three quickly generated drawings are generally more effective for visualizing a design concept than a single, more detailed image that takes longer to draw. Figure 3.29 illustrates a prototype restaurant with different exterior regional styles applied to the same structure. Even though a floor plan never existed, the side-by-side drawing comparison effectively allowed the client to understand the overall concept and further develop the idea.

Quick Tips Imagination Drawing



1.33



1.34

- If you want your drawing to fit on 11 x 17" or 8½ x 11" paper and you are drawing on an oversized piece of Mylar or trace, put crop marks on the larger sheet to represent the final page size. To accurately establish the location of the crop marks, trace over a sheet of paper that matches the final dimensions.

- Add a final touch to your drawing by erasing your layout or mock-up lines, eliminating any overlapping lines, and making last-minute improvements to areas of the drawing that you are not happy with. Be critical of your work and always try to improve your technique.

- The best way to indicate the transparency of glass is to draw objects on the other side of it. For example, if you are drawing a window, create a view of plants or people through the glazing. You can also show reflections of nearby objects. Drawing diagonal lines across the glass also simulates reflections.

- A smaller drawing with less detail will save you time and still communicate your design idea.

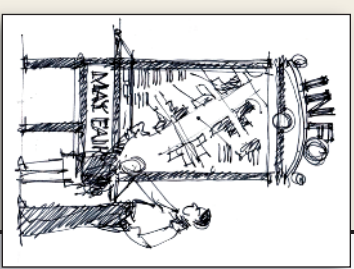
- Add humor to your drawing. Don't be afraid to exaggerate key elements of the image. The benefit of making drawings from your imagination is that they do not have to be realistic or accurate (Fig. 6.64).

- With freehand drawings, it is very easy to accidentally make the vertical lines crooked, especially if you are drawing at a slight angle to the paper. Use a triangle or straightedge and lightly draw a few vertical guidelines with a pencil. You will then be able to see any nonparallel lines by standing away from the drawing and looking squarely at the image.

- If you are creating a storyboard or series of related drawings, make all of the images exactly the same size and format.

IMAGINATION DRAWING PROJECT

Select a design project at work or at school. Without any assistance from models or photographs, create a series of imagination drawings, or storyboard, that conveys what someone might experience if he or she walked through or around the space. Make all of the drawings similar in size and format, using the same drawing pen or pencil. Add color to the images if doing so will support the story.

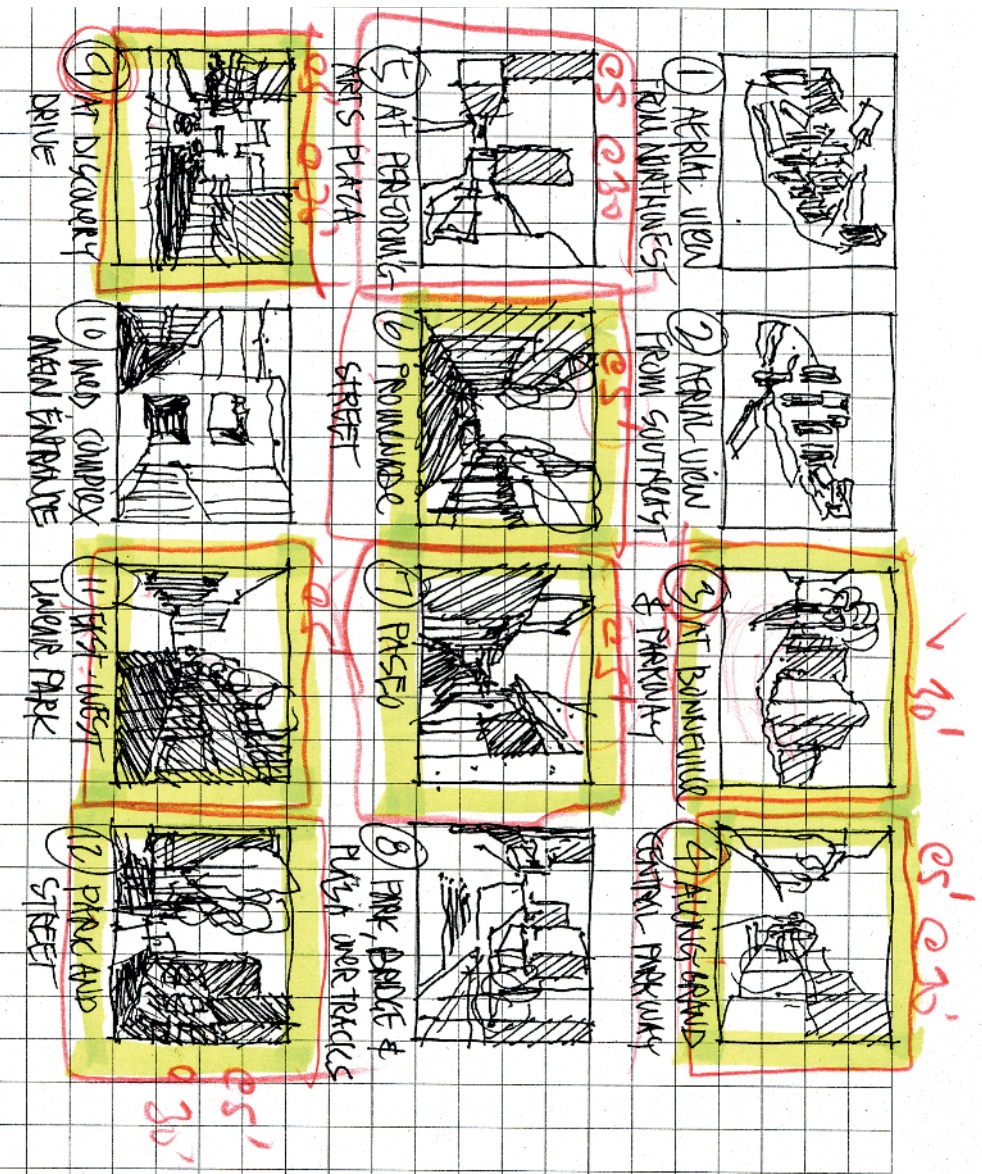


Thumbnail Drawings

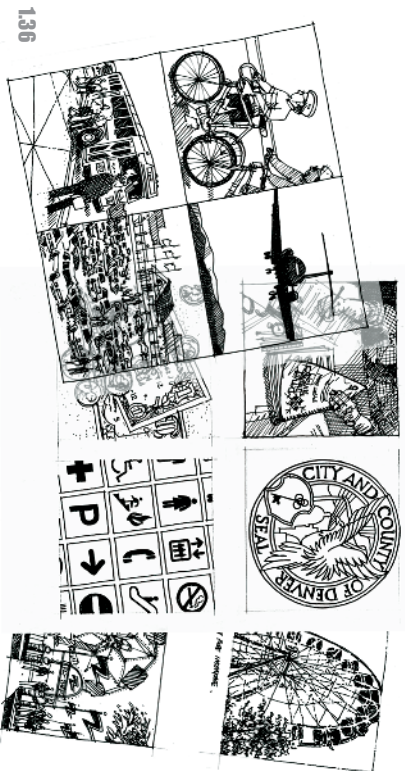
Keep It Small

Thumbnail drawings are the easiest drawings to create. Due to their postcardlike size, detail must be kept to a minimum. Very simple line drawings without much color or variation in tone, they are often used in the margins of reports to support the text. Sometimes they illustrate objects or logos; they can also be used like clip art to embellish graphic documents. In the early design phase of a project, thumbnail drawings help storyboard multiple ideas that are later developed through more refined drawings.

The best size for a thumbnail is 4 x 6" or smaller—any larger and you'll need more detail and drawing time. And thumbnails can be reproduced even smaller than that. If you reduce the image by 50 percent, the illustration will be sharper and may fit better on the page. Use ink linework, as you may not get a quality reduction from a color drawing or one with varying tones. A great shortcut for making thumbnail drawings is to keep a file copy and high-resolution scan of every drawing you create and reuse portions of those images for new thumbnail drawings. Reusing and modifying existing work saves a tremendous amount of drawing effort.



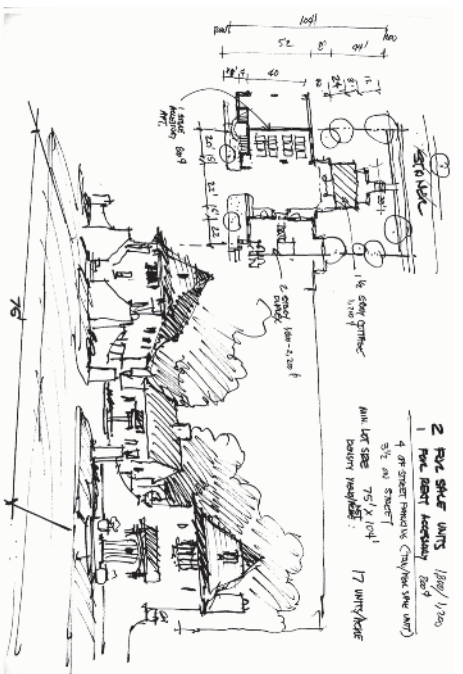
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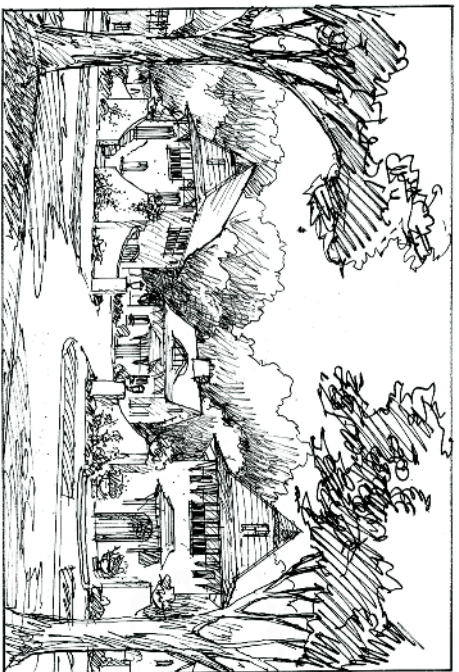
136

135 Thumbnail storyboard. This series of twelve thumbnail sketches represents possible view ideas for concept drawings. Drawings by Patric Dawe.

136 Ink drawings reduce well in documents. The various thumbnail sketches on this page all share a similar characteristic: they are each less than 3 x 5" and drawn with an ink pen. Notice how many images are cropped, and how the detail and hatching varies.



1.37

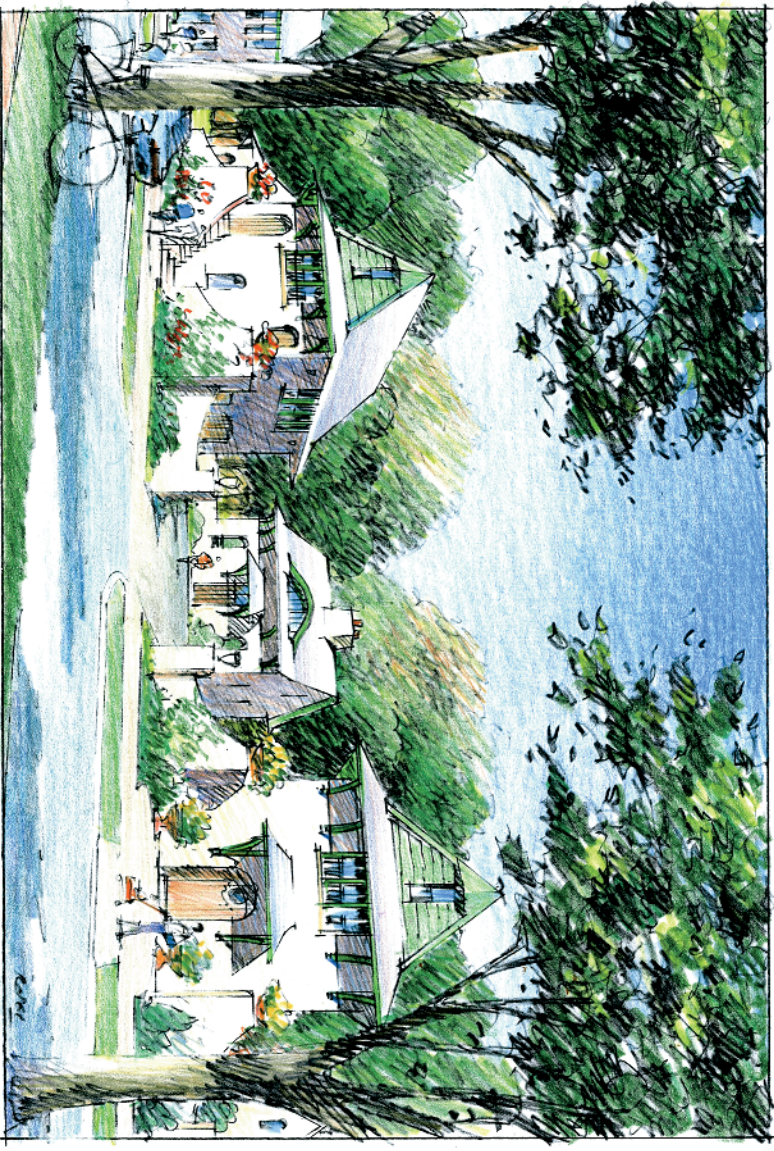


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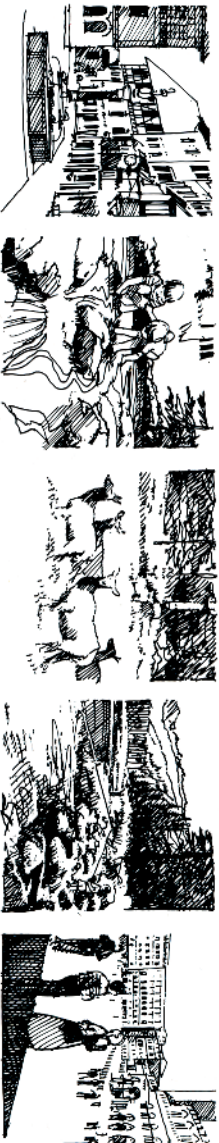
1.37–1.40 Teamwork drawing. Clearly articulating design intentions during a public planning charrette was important and required the teamwork of architects Seth Harry and Peter Roper. Seth first generated quick design sketches (Fig. 1.37) and then developed a freehand perspective with more detail, entourage, and composition (Fig. 1.38). Peter refined Seth's drawing and developed the final pencil drawing (Fig. 1.39) which he then colored with Prismacolor pencils (Fig. 1.40). Drawings by Seth Harry, AIA, and Peter Roper.



1.39



1.40



141

141 Thumbnail sketches for a book.

Each of these ink line drawings was sized 4 x 4" and traced onto Mylar from photographs. They were then reduced by half and published in a book about designing in mountain environments. Each of approximately forty original images created for the publication was the exact same size and proportion and used the same delineation technique, without any frame around the image.

When to Use Thumbnail Drawings
 As either a single image or a series of multiple images, thumbnail drawings support graphic reports and documents effectively. In a design summary report, PowerPoint presentation, or newsletter, text alone is boring and unimaginative, but limited layout space may not allow for large drawings. Incorporating thumbnail drawings is an imaginative solution that breaks up large blocks of text and adds a personal touch to the graphics.

How Much Time?

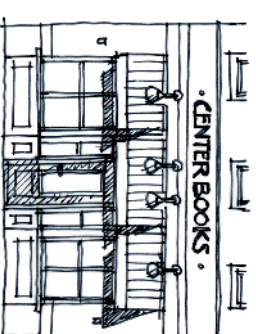
Keep the time it takes to make thumbnail drawings to a minimum. These drawings aren't supposed to be information rich; they just support the text and add character to a graphic document. Try not to spend any more than 15 minutes on each thumbnail. They don't have to be drawn from imagination—they can even be traced from other sources. Remember, less is more!

142 Thirty-minute vignettes.

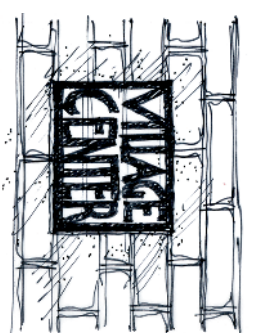
These four thumbnail sketches identify different streetscape elements during the concept development of a project. The ideas were easy to sketch and allowed the client to visualize the many alternative signs that could be integrated into the building. Felt-tip pen on trace.

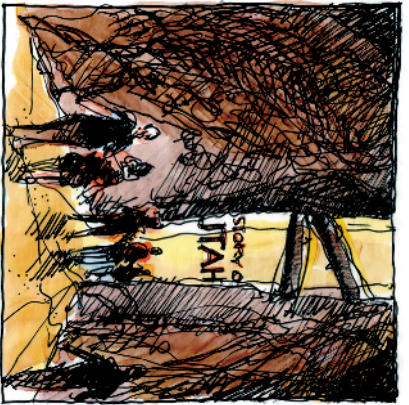
143-154 Quick color studies for an exhibit.

These 5 x 5" drawings were from a series of two dozen quick conceptual sketches for a new aquarium exhibit. Each image was drawn with a felt-tip pen on vellum. A record scan was made before each drawing was colored. Chartpak AD markers were applied directly to the original artwork, and each was scanned a second time for use in a presentation document.

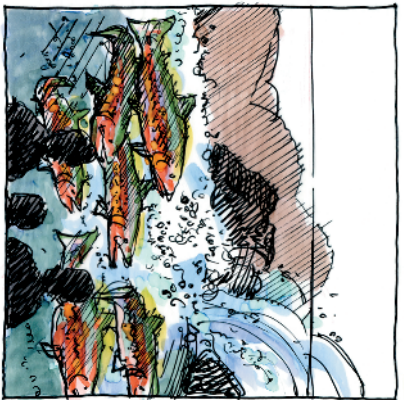


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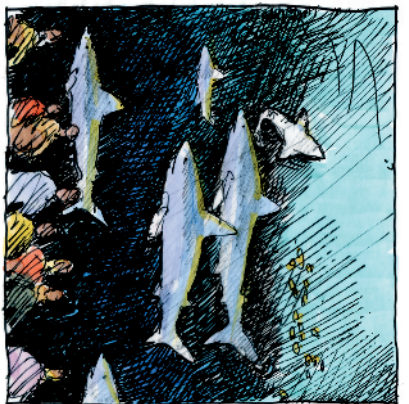




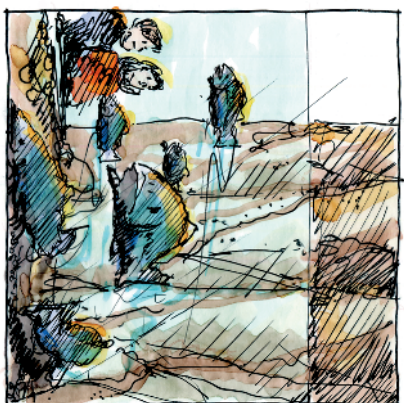
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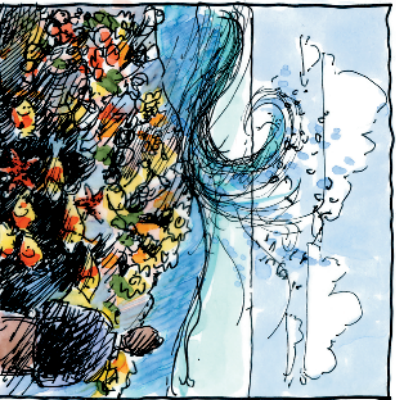
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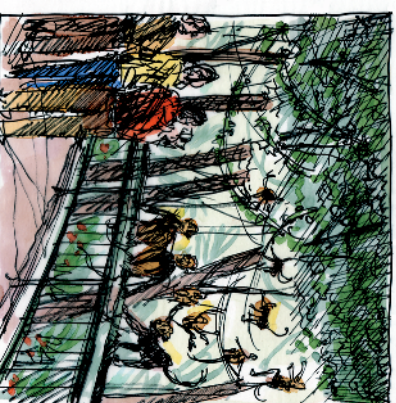
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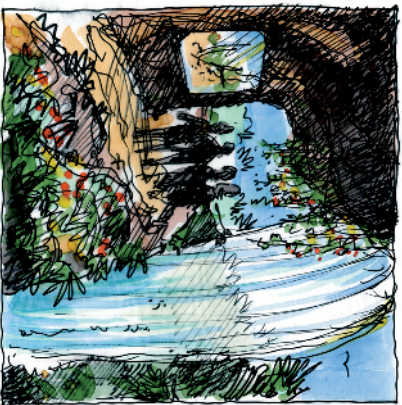
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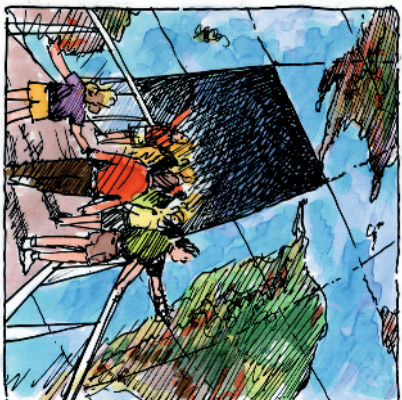
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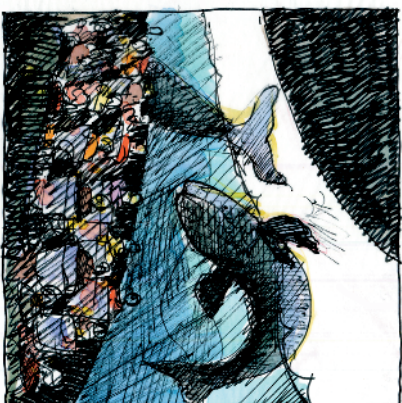
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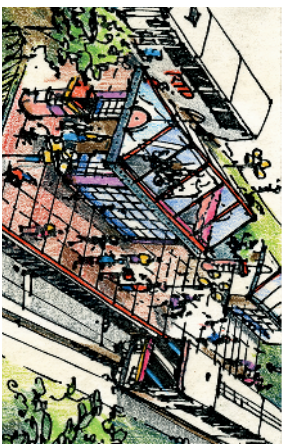
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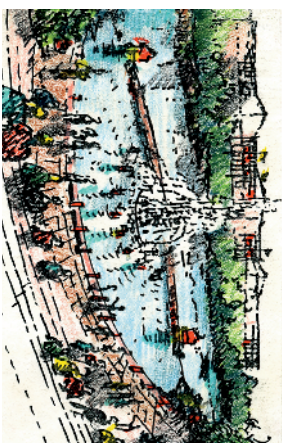
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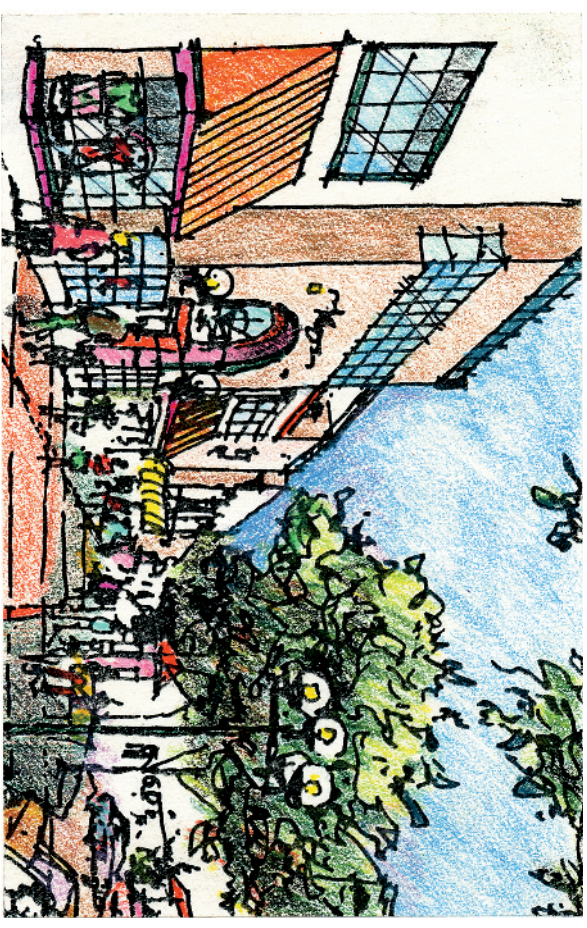
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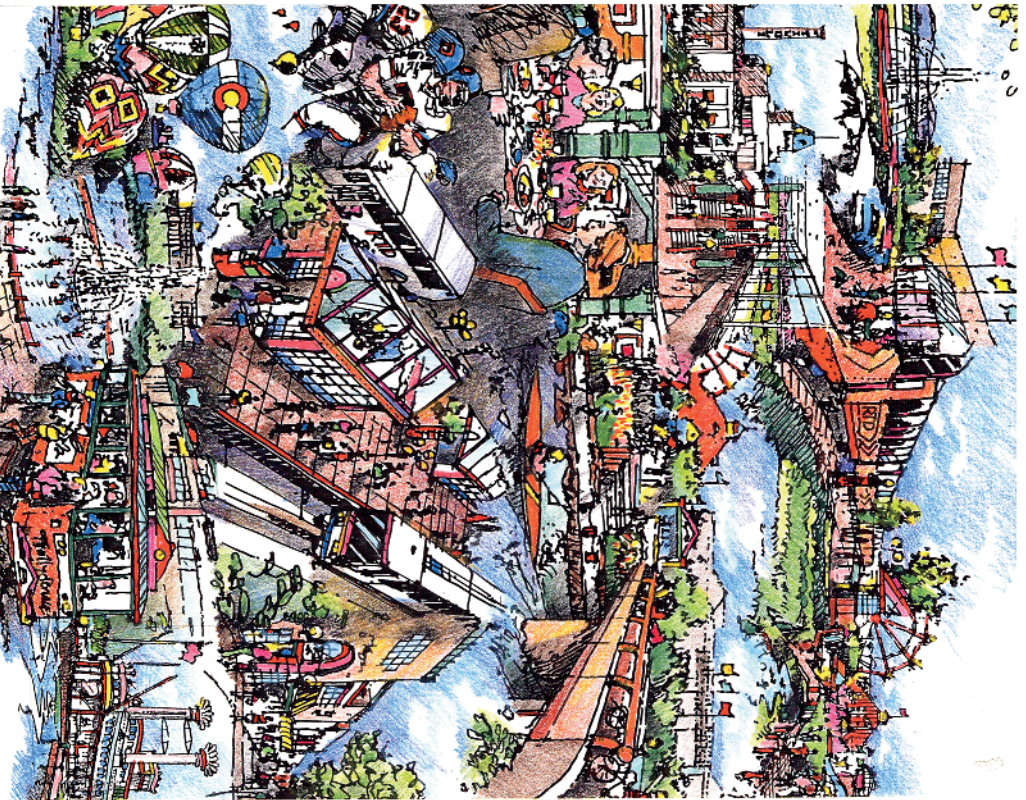
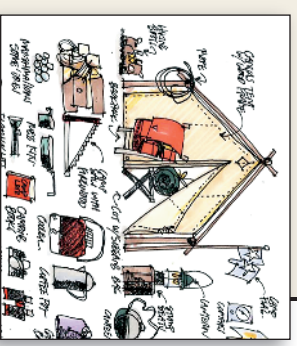
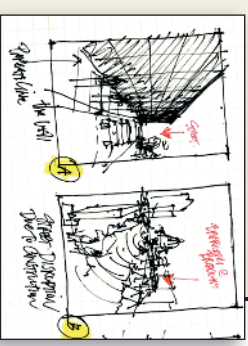
160

155–160 Thematic sketches tell a complete story. These are a few of nearly forty sketches that were quickly generated to promote a new convention center. Each 3½ x 5½" sketch was sized small in order to save time and keep the detail to a minimum. The images include a variety of architectural, interior, and landscape design subjects that give an overall impression of the activities surrounding the new building. Research material and site photographs were traced to create the drawings. A permanent ink pen was used on Mylar, copied onto bond paper, and colored with Prismacolor pencils.

161 Combine and color thumbnail sketches. This 8½ x 11" cover for a report combines fourteen separate thumbnail sketches, many of which are shown above. Copies of each original were mounted together, and edges were retouched with white correction fluid and additional linework. A final copy was made and colored with Prismacolor pencils. This image can also be easily made using Photoshop to composite the different images.

Quick Tips Thumbnail Drawing

- Label a 9 x 12" envelope THUMBNAIL DRAWING EXAMPLES FILE and begin filling it with examples of thumbnail drawings you find in magazines and newspapers. Use these examples for reference when you begin new thumbnail drawings. Make a high-resolution scan of each image and place it in a similar computer file.
- Tape or spray-mount your thumbnail drawings on 8½ x 11" bond paper so you can copy or scan them and file them easily.
- Unlike larger drawings that can contain a hierarchy of subjects, a thumbnail drawing should have a simple, singular message. Do not try to show too much information.
- To create a series of thumbnail drawings that will be grouped together, determine a consistent size for all of the images and draw them in an identical size and style. The drawings will then provide a consistent design theme and reinforce each other.
- Due to the small size of these drawings, try to keep the amount of time you spend on each to a minimum. Work quickly and limit the amount of detail.
- Adding color to a thumbnail can enhance what would normally be very sketchlike and difficult to understand drawing. But keep the color simple so it can be easily reproduced.
- Crop the image area and draw only the most important information. Determine what is not essential to your story and leave that information out of the drawing.
- Work in black-and-white linework only. Avoid using gray tones, as they are difficult to reproduce at such a small scale.
- Create the thumbnail at twice the size you want the final to be. Reduce the drawing 50 percent for the final reproduction.
- Always keep a high-resolution scan of the original line drawing before you add any color, shading, or texture. A record scan can provide useful information to trace for future drawings, and it is harder to trace information after shading and textures have been added. The black-and-white version of the drawing will also be easier to reproduce in some reports or graphic documents.



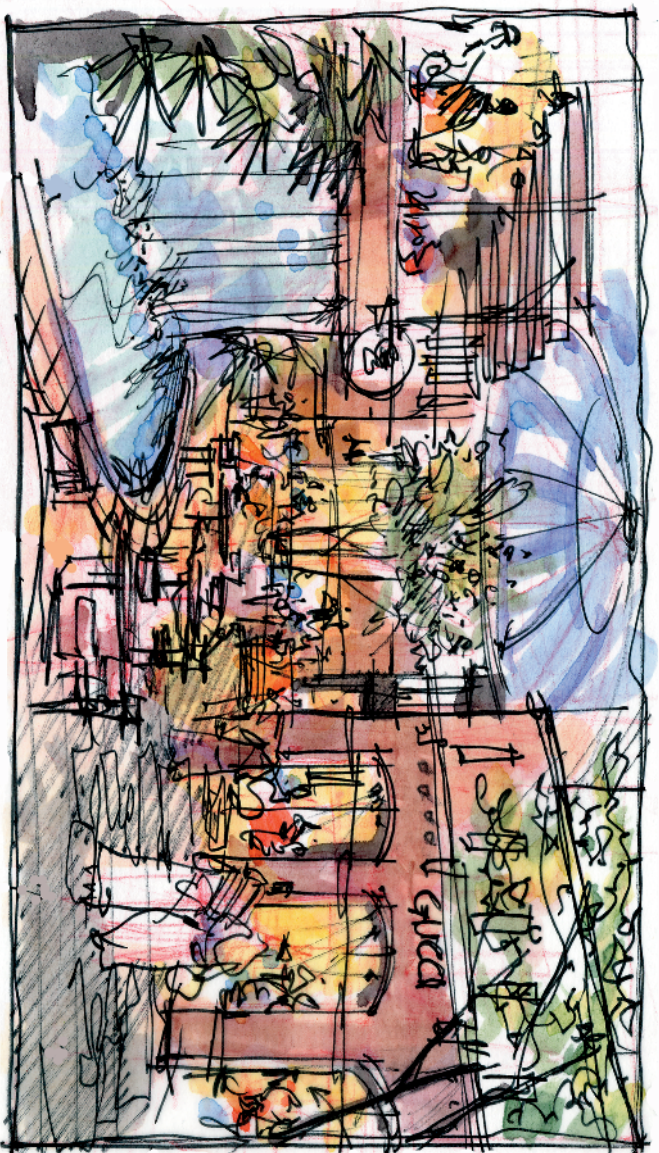
161

Concept Drawings

Visualize the Concept

A concept drawing is an illustrative representation of a design direction, motif, or theme. It can be created for a broad range of applications, from design presentations to reports and publications. A concept drawing can portray the spirit of an urban space, evoke the excitement of an interior room, or tell the story of your landscape design idea.

Because of the standard glass size of most flatbed scanners, concept drawings should be 11 x 17" or smaller. Unlike sketchlike black-and-white thumbnail drawings, concept drawings are large enough to portray materials and design details, as well as people and objects that are more carefully drawn. They are almost always colored with markers or pencils. Concept drawings often begin with a rough sketch (Fig. 1.64) that is then developed as a drawing mock-up and eventually traced as finished artwork (Fig. 1.67).



162



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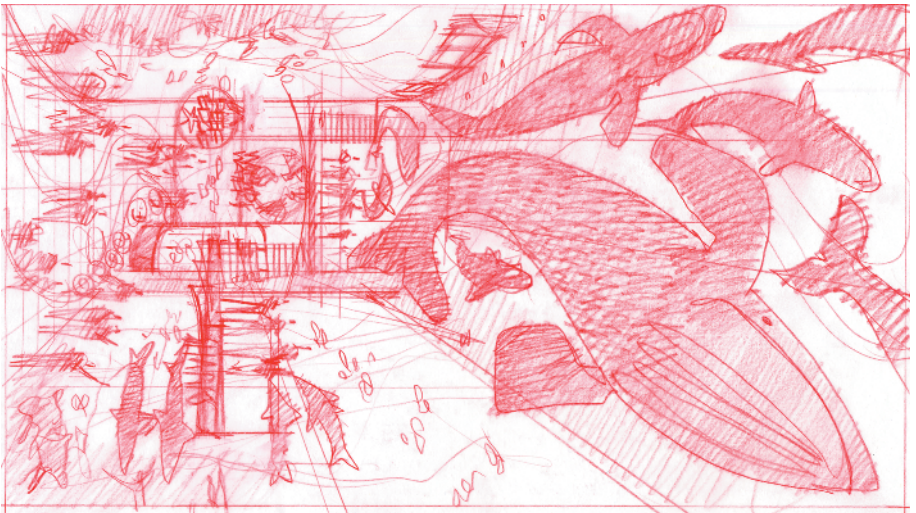


164

162 Thumbnail sketch of retail space. This 5 x 9" quick sketch identified the many elements for an interior commercial space. The image was first blocked out in red pencil. Then felt-tip pen and color markers were applied directly to the pencil drawing. Notes were added to identify different objects and materials. This image can be seen as one of many sketches in Fig. 1.63.

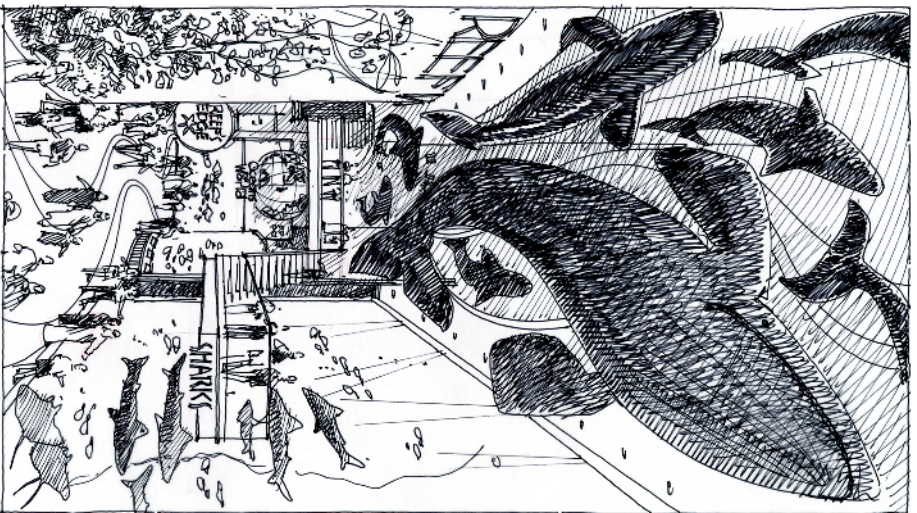
163 Review of concept sketches. A series of a dozen quick sketches were generated to visualize a large mixed-use development. Each 5 x 9" sketch was sized small to save time. Once an image was reviewed, it was developed into a larger and more detailed concept drawing. This review process is very effective for visualizing complex projects that have many different types of public spaces.

164 Aquarium quick sketch. This 6 x 9" image was generated in about an hour. Red pencil and felt-tip pen on trace with Chartpak AD marker.



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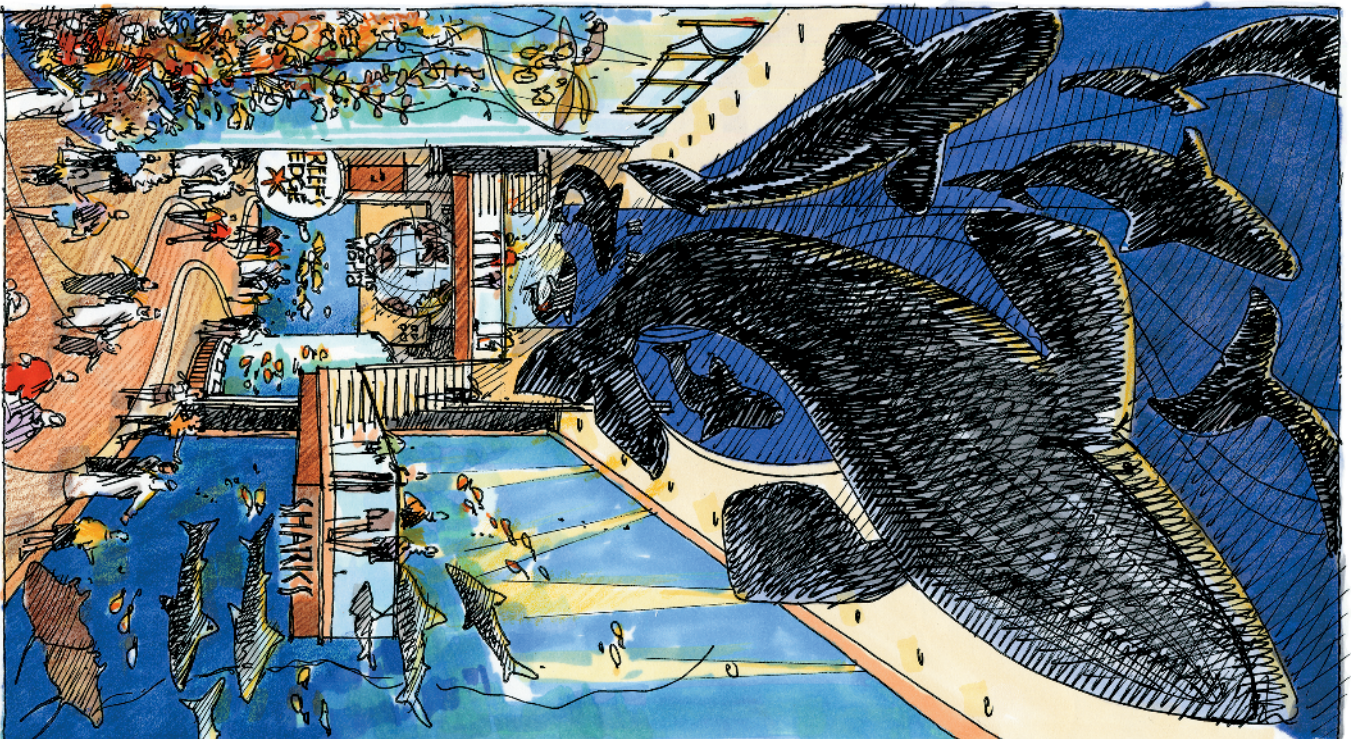
165 Redline mock-up. This 8 x 14" imagination drawing was based on the sketch shown in Fig. 1.64. Red pencil on trace.



166

166 Final ink line drawing. The red pencil mock-up was traced using a permanent ink pen on vellum. The 8 x 14" image was easy to create, as all of the major drawing decisions were made in the red pencil mock-up.

167 Final colored drawing. A same-size digital copy of the ink drawing was made on heavyweight presentation bond paper and colored with Chartpak AD markers. Prismacolor pencils were added to highlight textures and lighting. The 8 x 14" image was scanned in color at 300 dpi and used in the final presentation.



167

1.68 Thumbnail sketches of different views. Five pages of notes and sketches were generated to visualize an ambitious mixed-use international trade center. Final views were selected from these rough sketches. Notes were added to explain visual concepts supporting each sketch view.

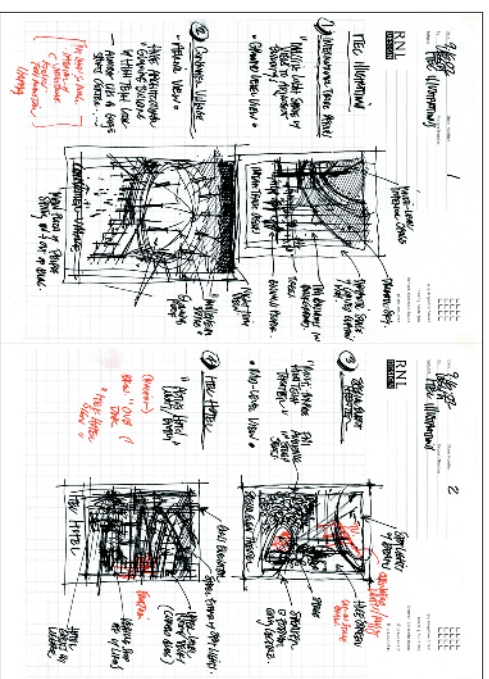
1.69 Redline mock-up of grand lobby. Based on the thumbnail sketch shown in the upper-left corner of Fig. 1.68, a 7 x 10" red pencil mock-up was developed from imagination. A straightedge was used to maintain consistent vertical lines. Slight pencil shading helped visualize the contrast between the roof and exterior sky.

1.70 Black-and-white line drawing. The red pencil mock-up was traced with a Staedler Lumocolor pen on Mylar. Many of the long vertical lines were drafted using a straightedge. Slight corrections to the 7 x 10" Mylar drawing were easily made using an electric eraser. Because of the small size, the people were drawn with minimal detail.

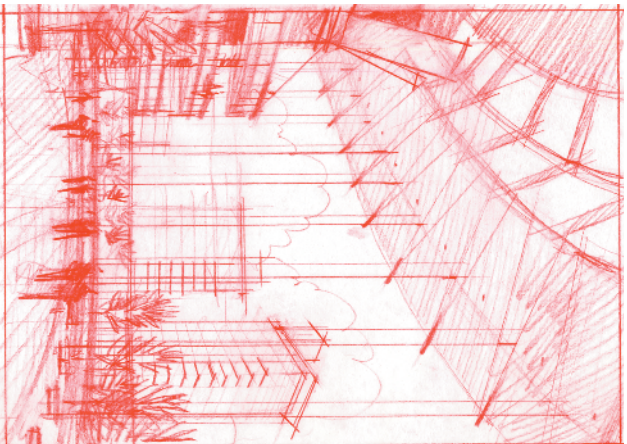
1.71 Final colored print. The line drawing was copied at the same size on presentation-weight bond paper, using a digital copier, and colored with Chartpak AD markers. Prismacolor pencils added tone to the different surfaces and the sky.

1.72 Exhibition theater concept drawing. Using the same process described in Figs. 1.69–1.71, this 7 x 10" drawing visualizes a small presentation theater with a circular stadium-seating arrangement. Extensive hatching captured the dark space and dramatic spot lighting. The small drawing size allowed the people to be drawn with minimal detail.

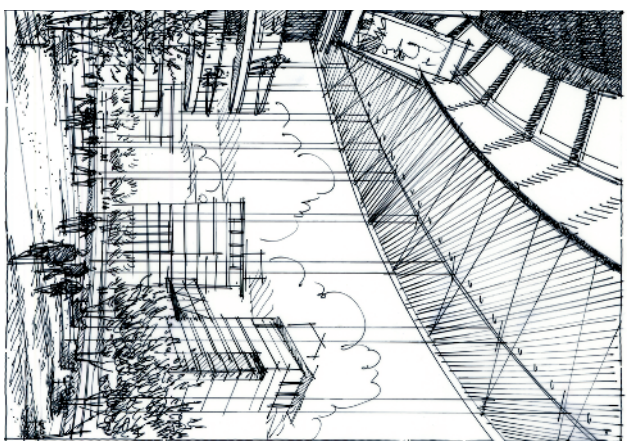
1.73 Museum of medicine concept drawing. This drawing matched the basic format and delineation technique of all of the other drawings in this series. The circular shape of the stair and signage adds interest to the image. Compared with the other drawings, the people and graphic signage in this image are drawn in more detail.



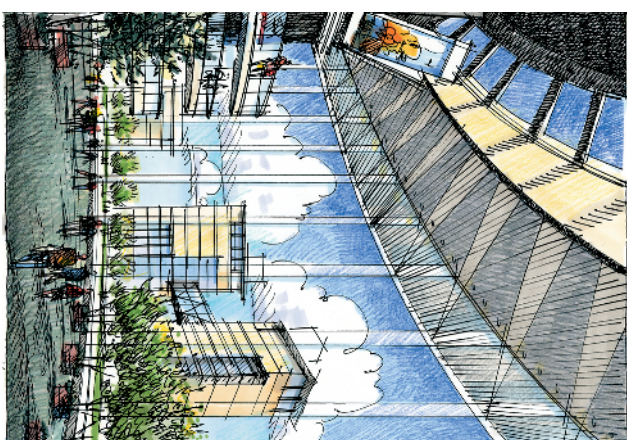
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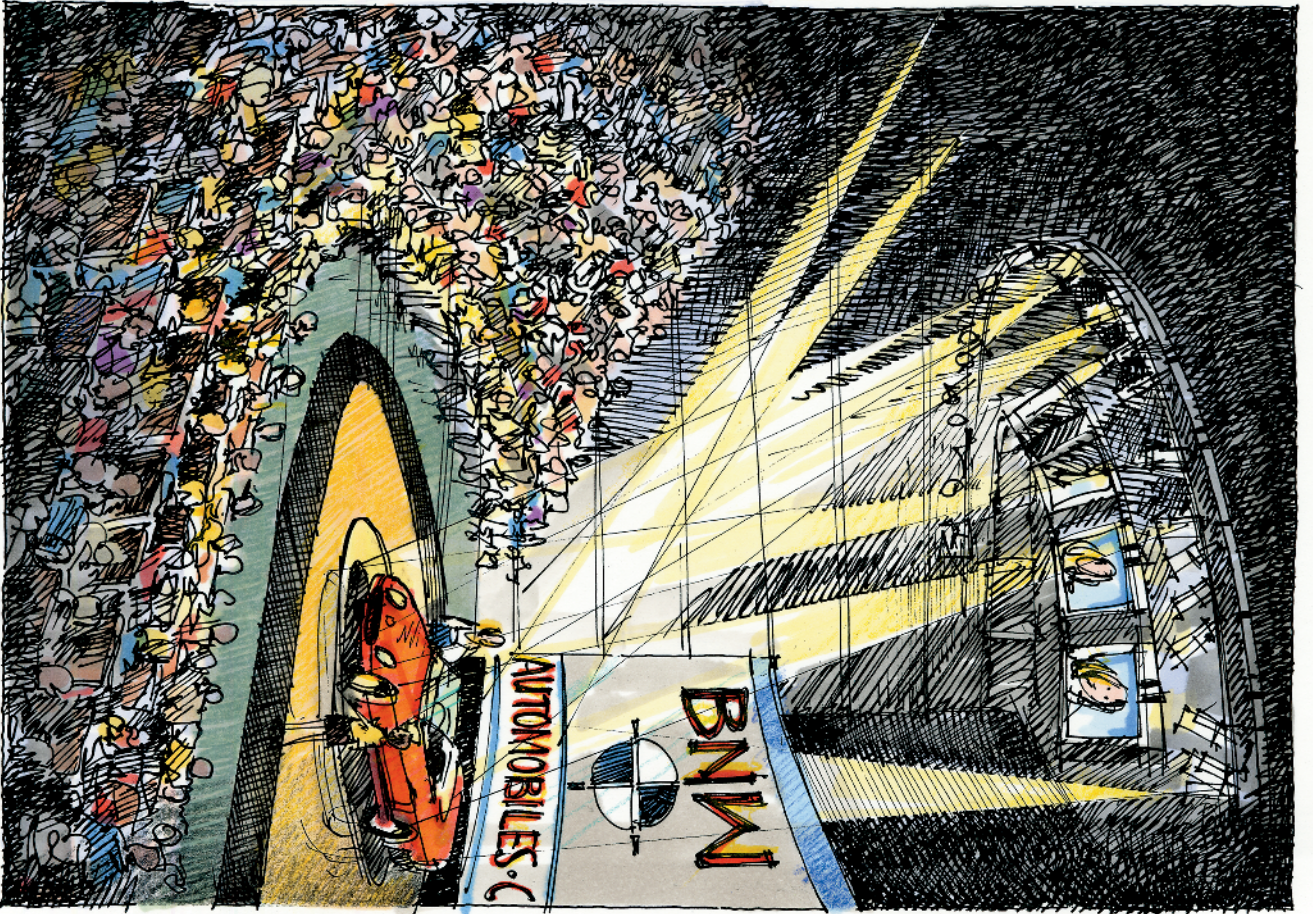


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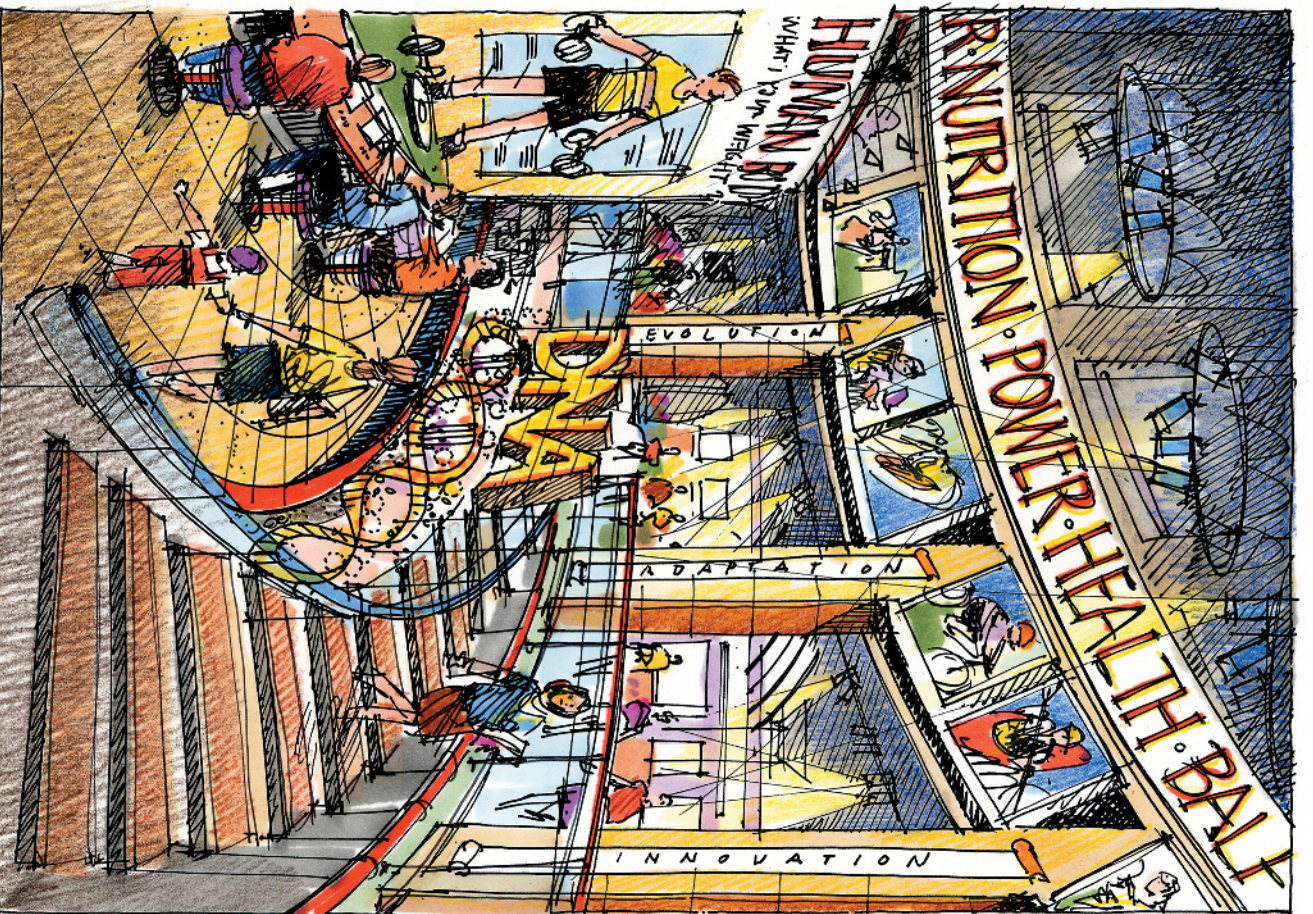
Create a Design Dialogue

Each concept drawing is a unique drawing solution to a design problem. As a defined step in the design process, it is a snapshot of your current design direction. The linework and coloring of most concept drawings have an informal quality, making them ideal in-progress drawings that represent your creative thinking. They can be developed as a single image or created as multiple drawings that represent a broader story about the design.

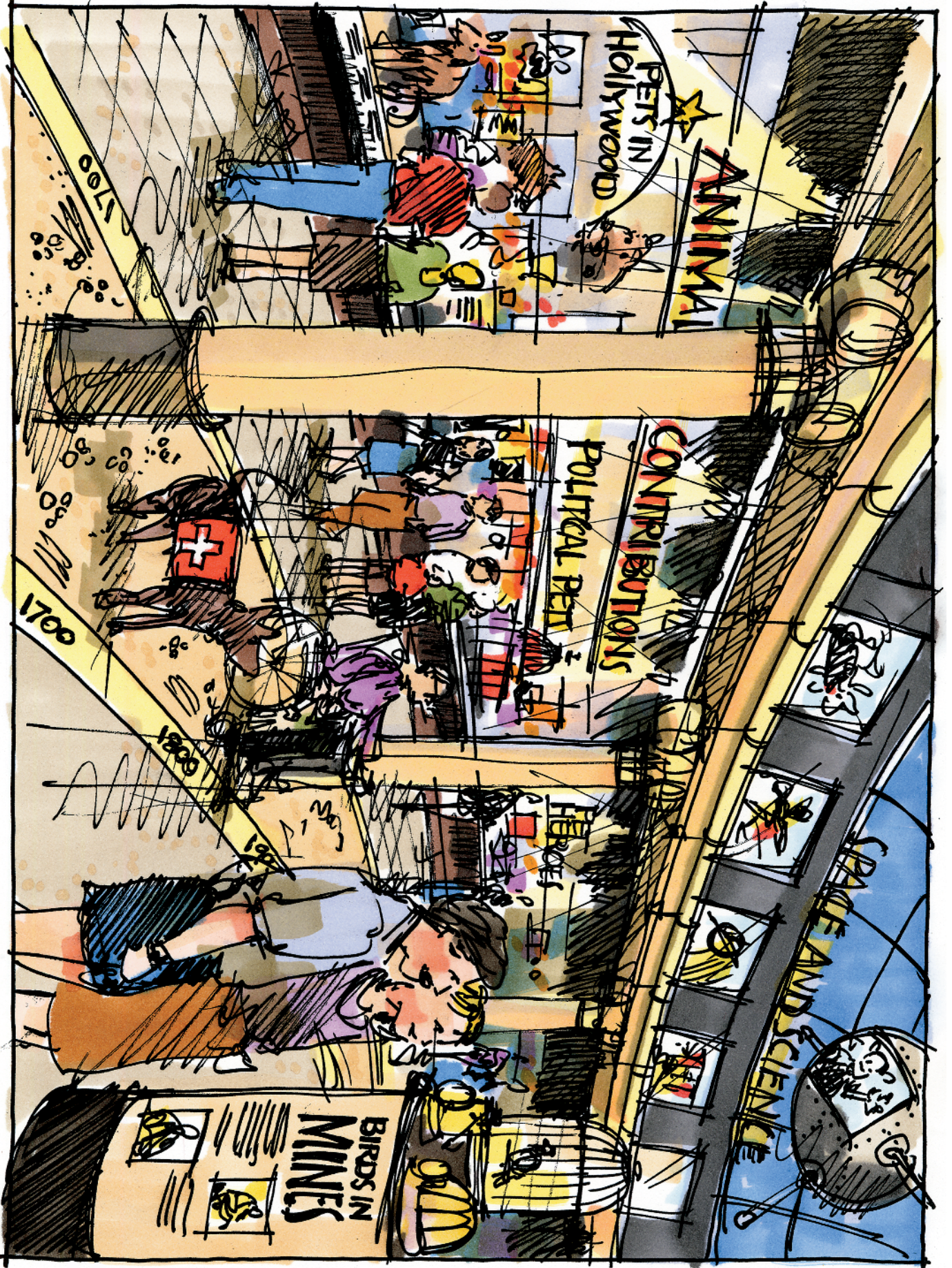
Clients have very favorable reactions to viewing concept drawings: because the images don't reflect a finished design product, they encourage a constructive dialogue about the design. Many generations of concept drawings can be produced during the process of refining a specific design. It's always a good idea to discuss your drawing approach beforehand with others involved in the project—such as your teacher, client, boss, or coworker—to be sure that your idea will communicate the design in the most effective manner.



172



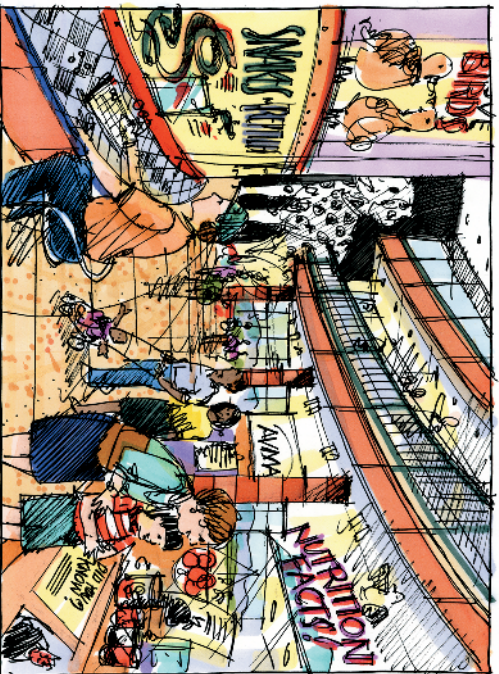
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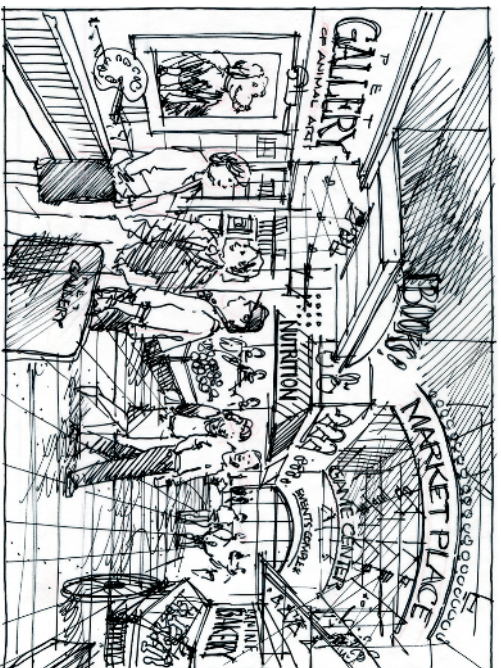
174

Concept Drawings in Series You will save the greatest amount of time if you can communicate your design idea with a single drawing. But sometimes you need a series of drawings to tell a more complete story. Occasionally, the planning or building design issues are so numerous that a series of six to ten concept drawings is necessary to fully illustrate the design ideas. Shown on these two pages are four drawings from a series of seven created to visualize many ideas about a new museum devoted to pet themes—pet health, pets in history, pet products, and pet-related events.

A concept series should employ drawings of similar size, format, illustrative style, and coloring technique in order to give the collection of images a consistent appearance and quality. In the example of the pet museum, each drawing illustrated different interior and exterior program elements of the building—the exhibition halls, main entrance, interpretive exhibit rooms, retail spaces, and other amenities.



176



175



177

174 Fill the drawing with content. This 7 x 10" concept drawing of an exhibit space incorporates graphics on the floor, walls, kiosk, and ceiling. Detail is purposely minimal, but the many different shapes and colors create the impression of a large collection of artifacts. Including people in wheelchairs in your drawings underscores the accessibility of the space. Cone shapes colored in yellow drawn below fixtures creates spotlights; any shading is kept away from the lights. The three-step drawing process is similar to the one described in Figs. 1.69–1.71, except this drawing is on vellum and colored only with markers.

175 Signage identifies the retail space. This one-point perspective clearly identifies the retail uses by including six different signs. The perspective emphasizes the corridor connecting to the outside. People and objects in the foreground are carefully drawn, while the images in the background are ghosted. All of the 7 x 10" drawings were sized to fit on a standard flatbed scanner. Each was drawn with a felt-tip pen on vellum, reproduced on presentation bond with a digital copier, and colored with Chartpak AD markers.

176 Multiple focal points add interest. This concept drawing is divided into three different stories. The left side shows a person interacting with a reptile exhibit, the center a family walking through the space, and the right side a mother and child studying a detailed exhibit. Drawings are far more exciting if there are multiple activities taking place within the image.

177 People and bright colors add energy. In this concept drawing, the events center hall has many brightly colored kiosks with graphics. People drawn in the foreground and background give the appearance of a well-attended event. Imagine how lifeless this drawing might look if there were only a few people in it.

1.78 Aerial view. The entire site and building configuration is displayed by viewing the subject from above. The height aboveground varies according to the site size.

1.79 Roof-level view. More of the ground plane and site layout is visible when looking down at the subject from a height of about 15 feet above the ground.

1.80 Eye-level view. This is the most natural option for viewing a subject. A typical eye-level view is approximately 5 feet above the ground.

1.81 Step 1: Gather the drawing data. The original photograph was enlarged on a copier. A computer wireframe roughly blocked out a second-floor addition. The page of tracing entourage includes people, cars, and trees. Vellum was then placed over the enlarged photo and both were taped to the table surface.

1.82 Step 2: Place and trace the objects. A felt-tip pen frame was drawn around the outer edge of the photo. Using a red pencil, the building outline and computer wireframe were added, followed by tracings of the car, people, and trees.

1.83 Step 3: Complete the redline mock-up. The building roof form, windows, outdoor dining area, second-floor terrace, stairs, and sidewalk were all roughed in with red pencil. The photograph was removed and a second piece of vellum was then taped over the mock-up.

1.84 Step 4: First trace the foreground. Using a Pentel Sign pen, objects in the foreground were outlined first. Shading and shadow were not added until the entire imaged had been traced.

1.85 Step 5: Complete the concept drawing. Completing the final 6 x 9" drawing involved adding hatching patterns to the window surfaces, a stipple pattern to the sidewalk and building exterior, and shadows beneath the car, trees, and people. Take your time drawing graphics and lettering.



1.78



1.79



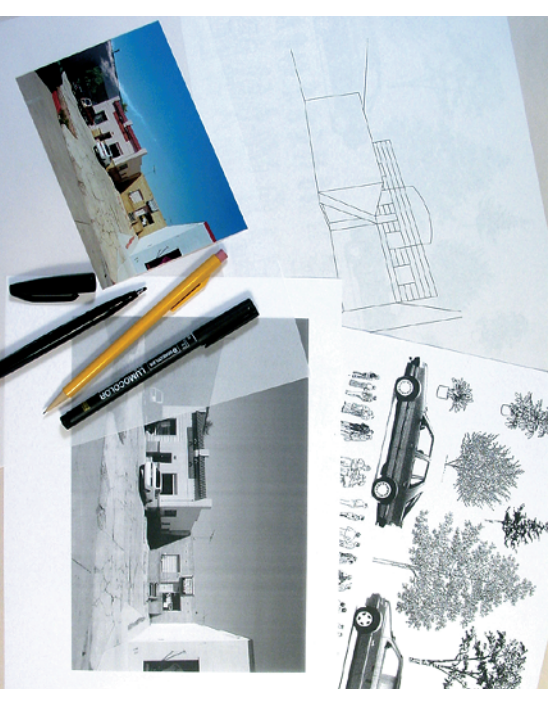
1.80

Select the Right View

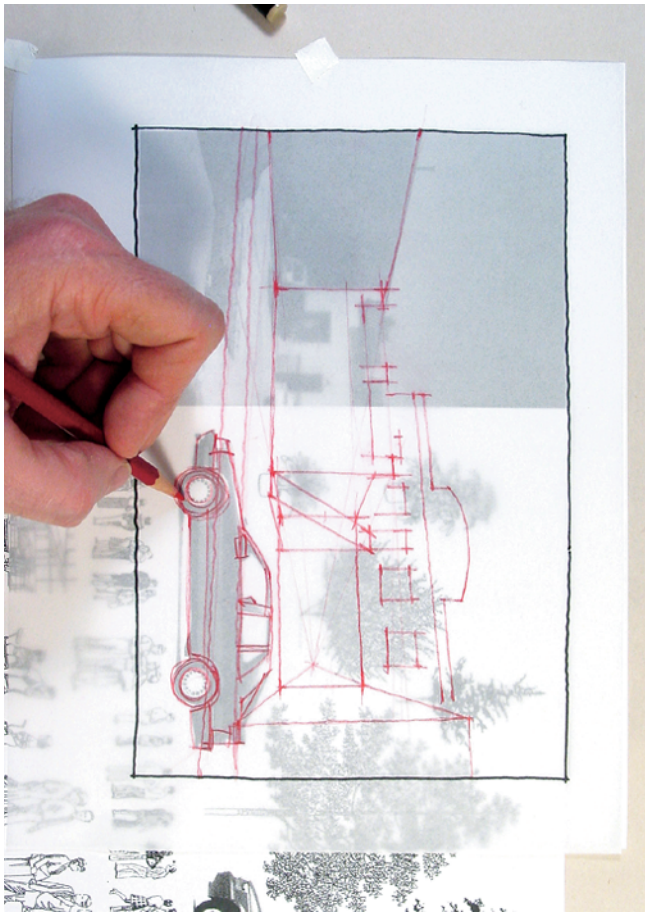
Selecting the right viewing angle for a concept drawing is a matter of answering two basic questions: How close should I be to achieve the best view of the subject? and How high off the ground should I be when looking at the subject? You should also include some environmental context in your drawing. Adding objects to the foreground can accentuate the drawing's three-dimensionality and help frame the image. Most concept drawings are illustrated from one of three points of view: **eye-level view**, with the scene observed from 5 to 10 feet above the ground; **roof-level view**, as if you were looking from a rooftop or bridge or while climbing a tree; and **aerial view**, a bird's-eye view from far above the ground. Look at the different drawings throughout this book and determine which of the three view categories were represented in those images.

The Best Concept Drawing Size

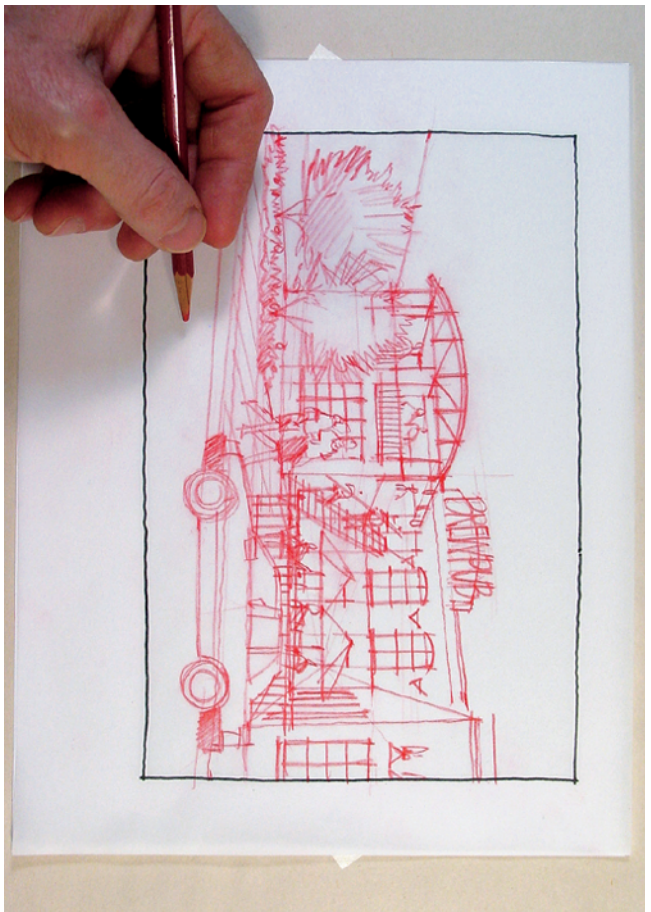
Concept drawings should never be any larger than 11 x 17". Drawing originals at 8½ x 11" makes for easy copying, scanning, and archiving. At these small sizes, you can have digital color copies or high-resolution flatbed scans made of your drawings. Always keep high-resolution scanned copies of your drawings at various stages of development. The drawing sequence in Figures 1.81–1.85 illustrates the step-by-step process of creating a concept drawing for a restaurant.



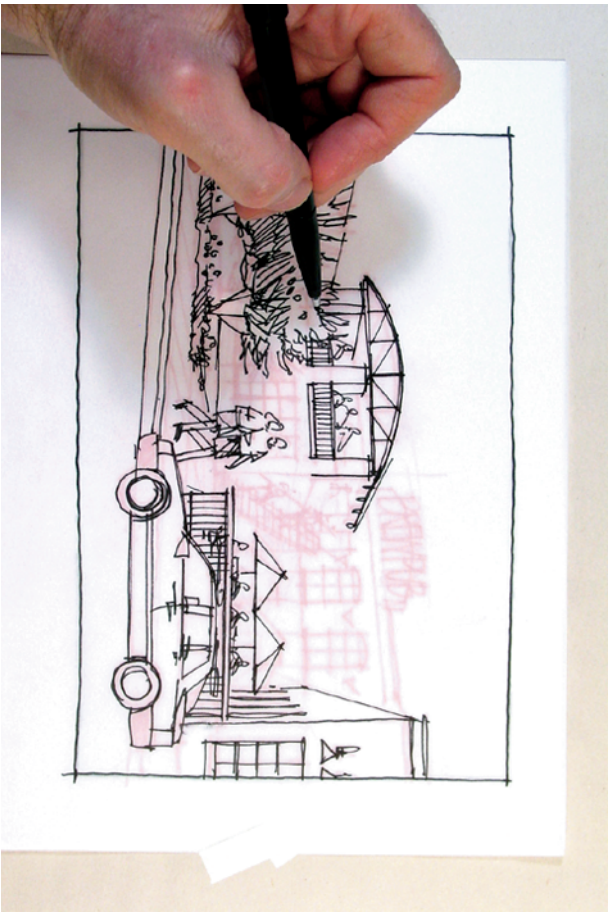
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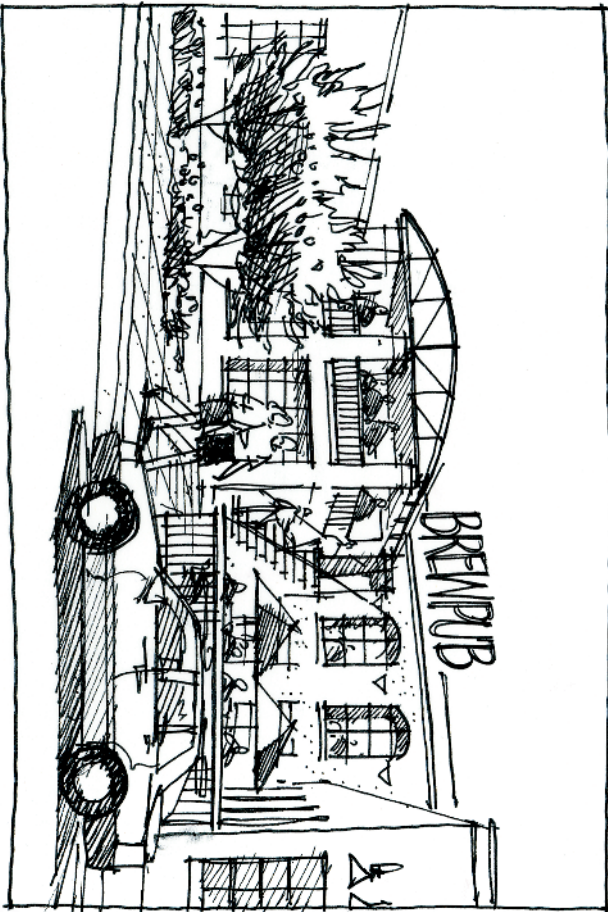
1.82



1.83



1.84



1.85

Drawing Decisions Based on Time

As with other drawing methods identified in this book, it is very important to manage how much time you spend developing the concept drawing. Timing will affect the level of detail, coloring effort, drawing technique, and overall accuracy of the drawing. In some instances, you may choose to keep the drawing very loose and spontaneous; in others, you may elect to draw detail and linework with far greater accuracy and care. Understanding your audience and its expectations of the visual presentation will aid in this decision.

Try to develop a technique you are comfortable with that also allows you to generate concept drawings in a very short time. You may be surprised how much your drawings are appreciated by clients and teachers as they become the catalyst for creative dialogue about design and process.

Choosing between Color and Black and White

Decide whether to use color during the initial planning stage of a drawing. That decision will inform your other choices regarding drawing size and materials, amount of detail and texture, and re-

production techniques. For example, if a landscape drawing is to be black and white, tree branches and leaves should be more carefully drawn in with linework. The same drawing in color could employ coloring techniques to illustrate the foliage. This kind of simple drawing decision can amount to big savings in the amount of time and effort you invest in your drawing. Plan ahead!

Concept Drawing Checklist

Prior to starting any concept drawing, it is beneficial to answer some basic questions:

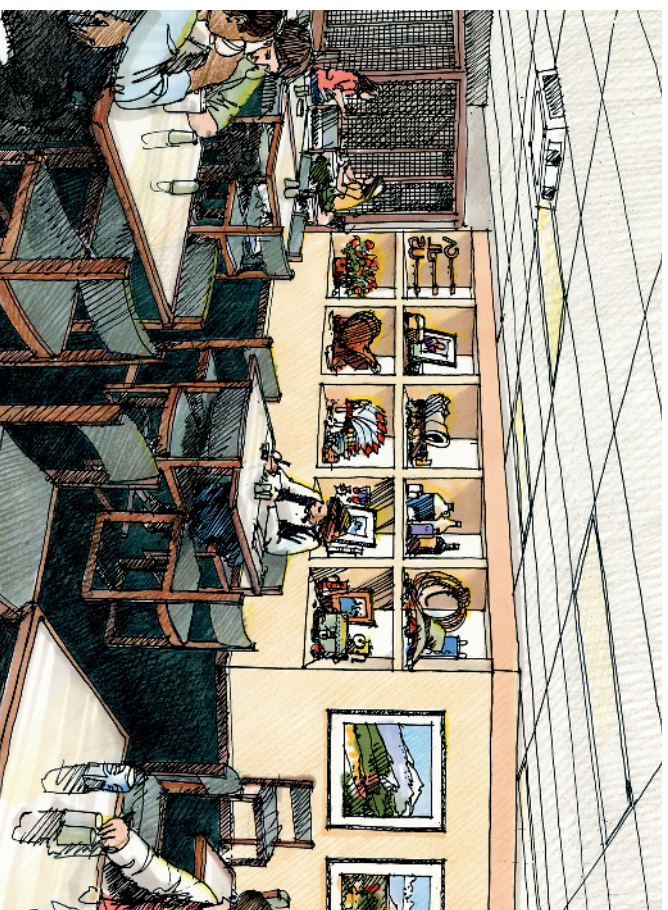
- What is the drawing size?
- How much drawing time do you have?
- Is it a single image or multiple images?
- What is the drawing format (landscape, portrait, or square)?
- Should it be in color or black and white?
- Should it be drawn with pen or pencil?
- How much drawing detail will be included?
- What is the drawing's point of view (eye-level, roof-level, or aerial)?

186 Cafeteria exhibit wall.

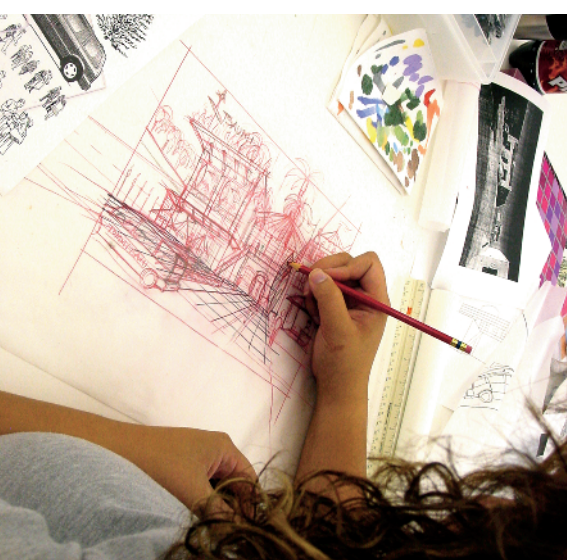
This 10 x 14" concept drawing highlights an exhibit wall with Western artifacts displayed in a series of niches. The basic perspective and foreground information originated from a reference photograph taken in another cafeteria. The original drawing was created with a permanent ink pen on Mylar. A digital copy on presentation board was made from the original artwork and colored with Chartpak AD markers and a minor amount of Prismacolor pencil for ceiling and floor texture.

187 Red pencil mock-up.

A student at the Savannah College of Art and Design practices the technique of creating a red pencil mock-up of a perspective drawing.



186



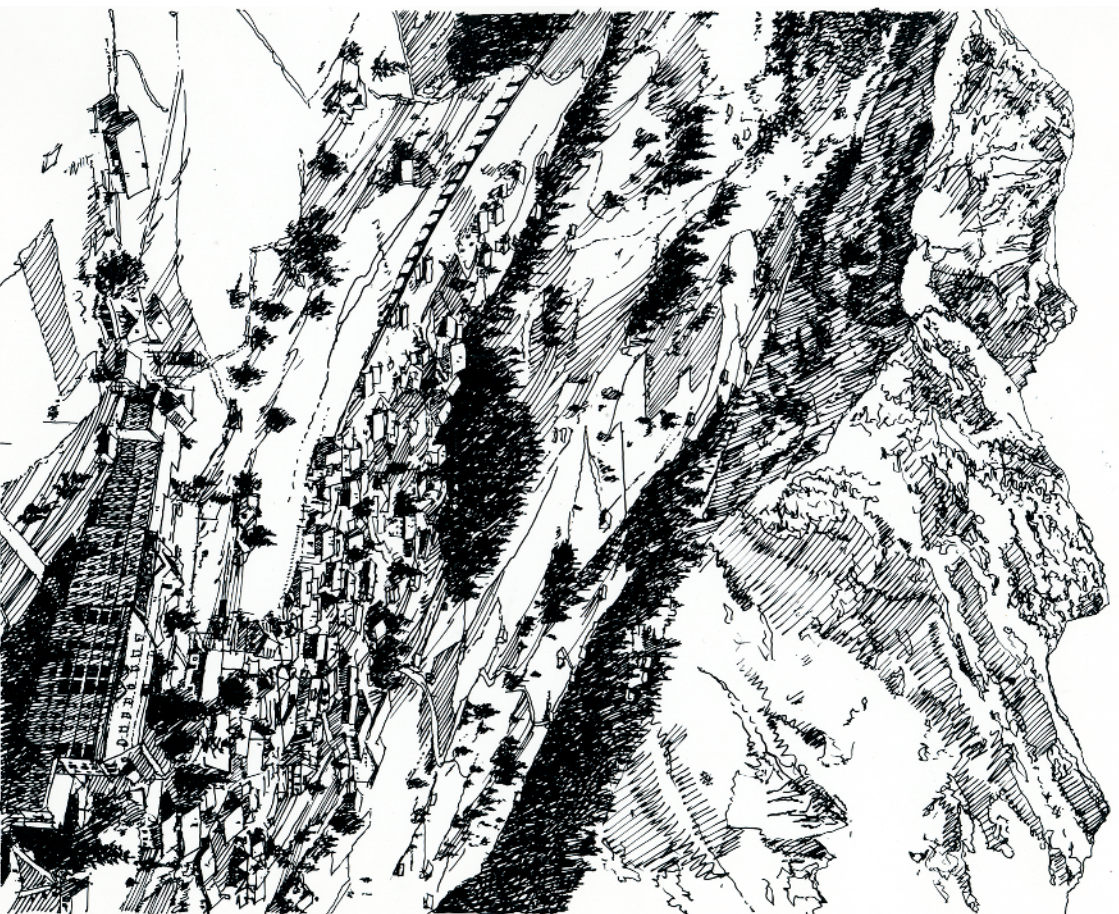
187

188 Drawn for black-and-white reproduction.

This 12 x 16" line drawing was composed so it could be reduced and printed in a book. Hatching patterns help define building shadows and variations in the terrain. The darkest areas represent pine forests surrounding this alpine resort village. Because of the amount of detail in the buildings, the hillside and mountain slopes were left somewhat loose to avoid overwhelming the image. Staedtler Lumocolor pen on Mylar.

189 Drawn for color reproduction.

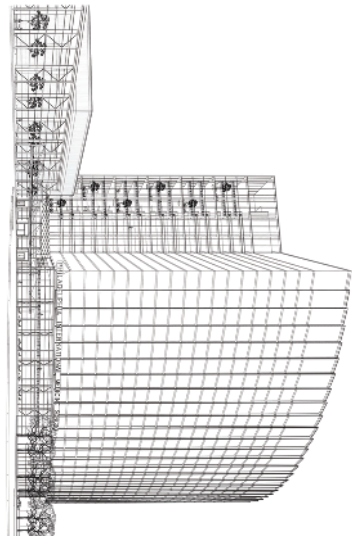
This colored version of the same mountain village clearly shows the red and white color palette of the architecture and the lush green vegetation. Giving the mountain a blue-purple tone created depth. A dark shadow on the hillside above the town draws more attention to the village and less to the background. The Prismacolor pencils were applied in thick layers and blended with a white pencil to create a soft, mistlike character on the lower portion of the mountain. 12 x 16" permanent ink pen on illustration board with colored pencil.



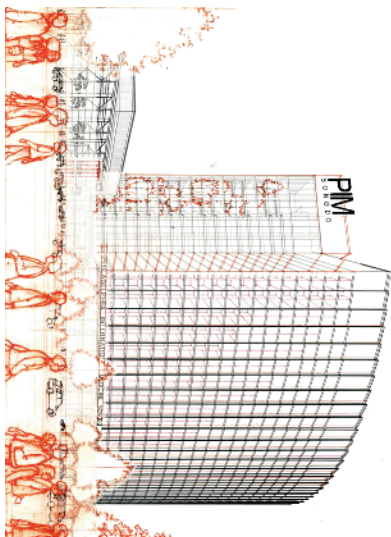
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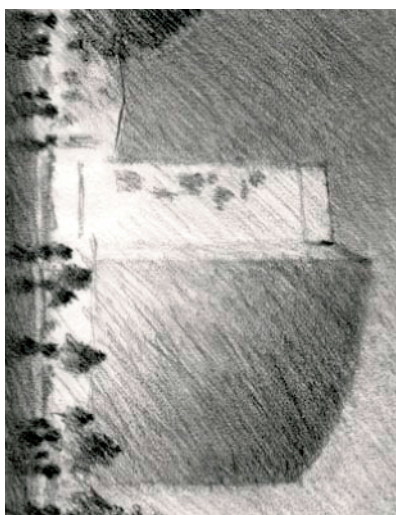
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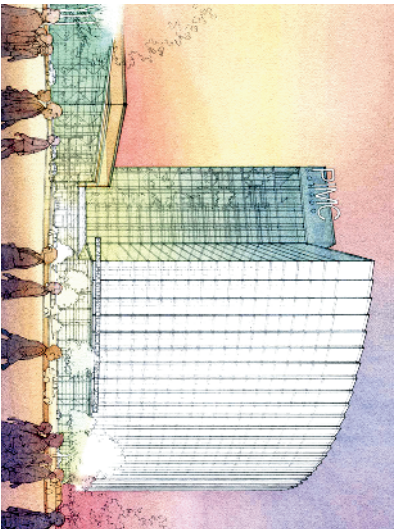
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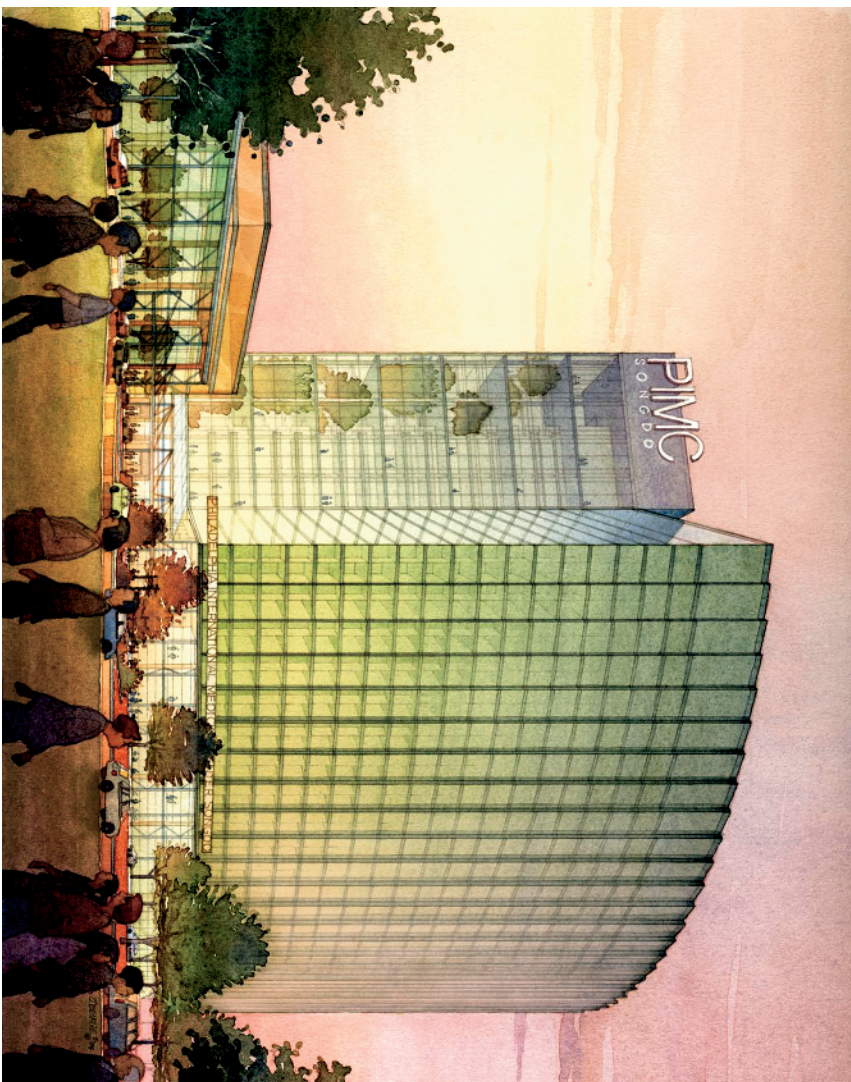
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Quick Tips Concept Drawings

1.90 Computer-generated wireframe for the Philadelphia International Medical Center, Songdo City, South Korea; Architect: Ballinger Co., 2005. Provided by the client, the wireframe became the base for the line layout.

1.91 Final line layout. Additional details and landscaping were added to the building; figures and entourage were composed to complete the layout process.

1.92 Value study. A small value study was made quickly with graphite pencil on trace over a reduced copy of the line layout. By concentrating on the big shapes, multiple lighting concepts could be explored.

1.93 Color study. A small color study was made with colored pencil on trace over a reduced copy of the line layout. Using the same technique as the value study, several of these studies were made in a short period of time; color combinations and lighting effects could thereby be considered.

1.94 Initial color washes. After the line layout was transferred and mounted to a board, beginning washes established mood; the artist worked from light to dark, from big areas to small ones, and covered the entire image.

1.95 Final completed image. The watercolor was finished and scanned into Photoshop, so the image could be fine-tuned using tools and adjustment layers to push the contrast, value range, and color palette. *Watercolor and drawings by Michael P. O'Beirne.*

- Label a 9 x 12" envelope CONCEPT DRAWING EXAMPLES and use it to store all your smaller concept drawings. Create larger files for your 11 x 17" drawings. This will keep your work flat and away from damaging sunlight.

- If you are developing a series of concept drawings around a single theme, create variety among the views and try to avoid repeating the same elements such as traced people, plants, and graphics. Repeated objects diminish the originality of the drawings.

- Always add elements to your drawing that will clarify its scale. For example, if you are drawing a landscape, include people, birds, plants, furniture, signs, or lighting to reinforce the concept of your drawing.

- Don't hesitate to add wildlife and other animals to your drawing to help animate areas that would otherwise appear lifeless. Flying birds, geese on water, squirrels in grass, and dogs on a leash are all good examples.

- If you add signage to a drawing, avoid using the names of real businesses. Make up your own store titles and graphics in order to maintain the unique character of your drawing; actual commercial names draw attention.

- Do not forget to add shadows to your drawings. An object will appear to float unless a shadow is drawn beneath it. A soft shadow can suggest a diffuse light source, while a hard shadow indicates a single intense light source, such as the sun.

- Draw against a triangle or straightedge when adding shade to small areas of a drawing to accurately control the area of the shadow.

- Print your name and the date in a lower corner of your drawings in case they get misplaced. Doing so is also a great way to advertise yourself as a designer.

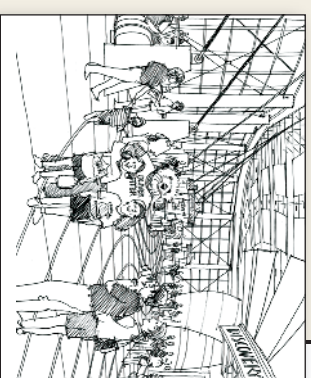
- You can enhance the appearance of a small original drawing simply by mounting it on a sheet of 11 x 17" white paper; use either clear tape or spray mount.

- When appropriate, incorporate people into your image: they always add character and scale.

- When you do draw people, place them in active situations, interacting with each other and having fun. Happy faces always enhance an image and make for a more inviting drawing.

- For photocopying and digital scanning, the optimum drawing size is 11 x 17". Size your image no greater than 10 x 16" to allow for a border and white space between the image and the edge of the paper.

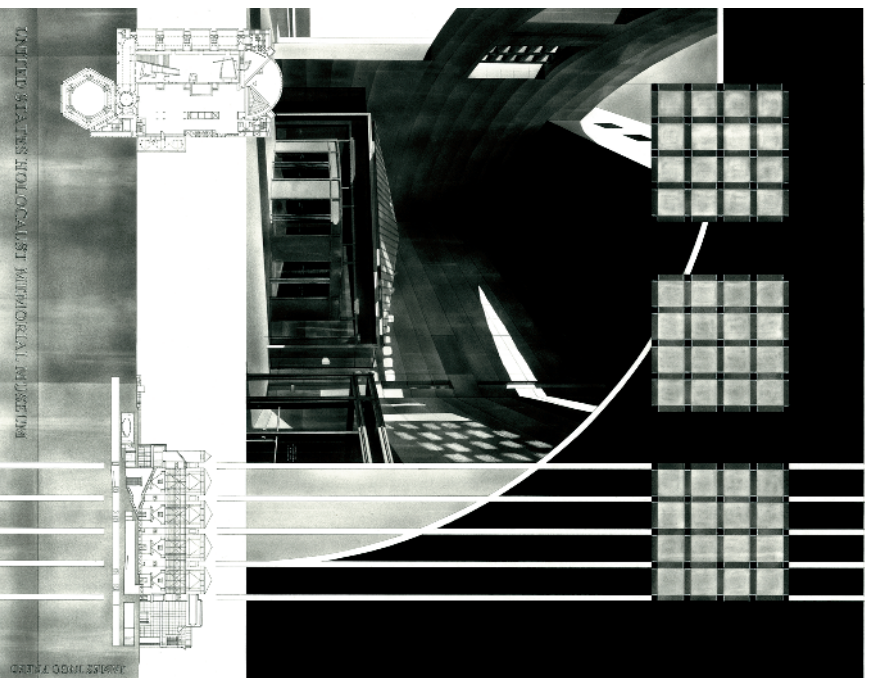
- Keep all sketches, red pencil mock-ups, and original artwork for future reference.





Presentation Drawings

As your design reaches completion, your client or instructor may request a more formal and detailed representation of your design solution. This may be required for a major presentation or marketing effort, or simply as a final portrayal of the design. Some clients, uncomfortable with the photorealistic character of many computer renderings, are asking for a more one-of-a-kind, authen-



1.97

tic piece of artwork—a handcrafted rendering of the design. There are many professional visualists and architectural illustrators who have developed their technique over many years and have a talent for creating beautiful watercolor and mixed-media renderings. Other clients dislike hand-rendered images and request photorealistic representations. At this finished level of project development, presentation drawings can also be paired with animations and physical models. The type of rendering you ultimately produce should be dictated by the client.

Presenting Design Solutions

Presentation drawings or renderings are quite different than concept drawings. Concept drawings are meant to be used during the design process to generate design dialogue and conversation. Presentation drawings are primarily used as a record of the final design solution. Not everyone is expected to become proficient at producing these types of drawings. Professional illustrators develop careers creating these renderings and become experts working with specific media.

Presentation Drawings:

- Involve a much higher level of detail and accuracy.
- Could require a professional illustrator and the associated costs of commissioning a rendering.
- Take more time to produce.
- May be larger than concept drawings, thus compounding the time and effort involved in producing them.
- Are created via a process that may involve formal media such as graphite, watercolor, pastel, and gouache.
- Necessitate illustrative development and the more precise representation of landscaping, people, materials, shadows, skies, and other elements.

1.96 Museum of Islamic Art. This formal rendering for I. M. Pei's museum in Doha, Qatar, was created through a series of digital and traditional drawing steps:

Step 1. An existing AutoCAD wireframe provided by the architect's office was carefully rotated to establish the optimal eye-level entry view, with the building geometry well-defined and framed between the landscaped planters. Shadow studies determined the most effective lighting condition for portraying the stepped massing of the architecture.

Step 2. After transferring the selected view to a Strathmore board, the original 10 x 16" black-and-white drawing was delineated with a Prismacolor #935 pencil. The artwork was then scanned at a high resolution.

Step 3. From that file, a slightly lightened black-and-white iris print was made on Arches cold-press watercolor paper at the final image size of 14 x 26". All final hand coloring was accomplished with various Prismacolor pencils.

Original and retrocolor drawings by Paul Stevenson Oles, FAIA.

1.97 Presentation drawing for college design project

This 24 x 36" drawing was generated for a class project involving the rendering of tonal values. The image was created using a combination of graphite for the large fields of tone and mechanical pencil for the fine drafting, lettering, and linework. Graphite powder was applied with cotton swabs and Q-tips in a series of steps involving frisket. *Drawing by Hunter Leggett.*

Four-Stage Process Compared with concept drawings, presentation drawings go through a more complex development process. Four stages are often required to produce a rendering of this type. In the initial stage, **background preparation**, decisions are made about the design intent and purpose, the drawings' dimensions, the media in which they will be created, who will illustrate them, the number of renderings that will be required, and how they will be reproduced and presented, as well as about any photographic and computer-generated data needed, deadlines, budget, specific criteria dictated by the client—and even the decision-making process itself.

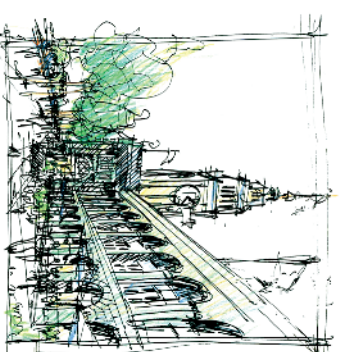
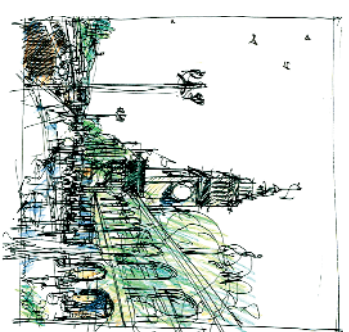
The second stage, **image mock-up**, involves blocking out the drawings, finalizing their composition, selecting views, creating sample illustrations, and soliciting initial client approvals.

The third stage, **image development**, produces an in-progress drawing that then forms the backbone of the final rendering. Value and color studies are reviewed. In-progress iterations of the drawing are often shown to the client for review and approval.

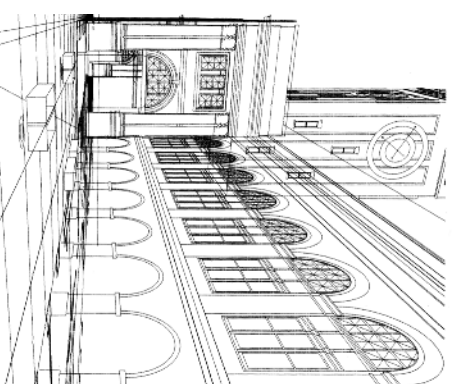
In the fourth stage, **finished image**, the presentation drawing is completed. It may be scanned at a high resolution and digitally modified to enhance its color or appearance. The final image delivered to the client may be the original artwork or a digitally manipulated file.



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1.98 Aerial perspective of golf resort. The

17 x 24" aerial view of a resort was first sketched in pencil on vellum from a SketchUP model view provided by the architect. After approval of the pencil mock-up, the final ink line drawing was delineated with a .25mm fine-point Rapidograph technical pen on 1000H vellum. Scanned at 300 dpi, the image was lightened in Photoshop and printed onto watercolor paper with waterproof inks. The paper was mounted to Gatorboard and painted with watercolor and gouache for highlights. *Watercolor by Michael Abbott.*

1.99–1.101 Competition rendering. After considering two view angles (Fig. 1.99), this competition rendering for San Francisco's ferry building renovation was constructed from two elevations tilted up in AutoCAD (Fig. 1.100) and from site photos. The tower's true proportion was altered to balance the composition.

Watercolor and permanent ink. Illustration © J. F. Mahoney.

1.101