

INTERIOR DESIGN VISUAL PRESENTATION



**A Guide to Graphics, Models,
and Presentation Techniques**

SECOND EDITION

Maureen Mitton



JOHN WILEY & SONS, INC.

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Published by John Wiley & Sons, Inc., Hoboken, New Jersey

Published simultaneously in Canada

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Library of Congress Cataloging-in-Publication Data:

Mitton, Maureen.

Interior design visual presentation : a guide to graphics, models, and presentation techniques /

Maureen Mitton.-- 2nd ed.

p. cm.

ISBN 0-471-22552-5

1. Interior decoration rendering. 2. Interior decoration--Design. 3. Graphic arts. I. Title.

NK2113.5.M58 2003

729'.028--dc21

2002156140

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

For
Roger, Anna, and Luc

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ACKNOWLEDGMENTS

This book, just like the first edition, compiles the work of many hands (and keyboards) and conversations. It has been made possible by the generous contributions of numerous people, to whom I would like to express my gratitude.

First, I must acknowledge my current and former students, who have taught me volumes and who continue give me the energy to keep going. I must thank all of the former students who contributed work to the first edition especially, including Theresa Isaacson, Leanne Larson, Ardella Pieper, Cory Sherman, and Justin Thomson. Denise Haertl, Dan Effenheim, Anne (Cleary) Olsen, and Angela Ska, now professional designers, all willingly handed over portfolios for inclusion in this edition. Current students who contributed work and help include Kristy Bokelman, Anne Harmer, and Randi Steinbrecher. And I thank former exchange students Elke Kalvelage, Jessica Tebbe, and Dirk Olbrich for allowing me to include some of their fine work.

I have been amazed and touched by the generosity of members of the design community who shared time and contributed projects: my friend Lynn Barnhouse at Meyer, Scherer & Rockcastle Architects, who contributed a

great deal of work and gave hours of her time; Jane Rademacher, Lisa Miller, and Bob Al-bachten; and Thom Lasley, of RSP Architects.

Others who took time out of very busy schedules to contribute include Thomas Oliphant; Jim Smart, of Smart Associates; Jim Moeller, at Arthur Shuster Inc.; Craig Beddow, of Beddow Design; Deborah Kucera, of TKDA; Janet Lawson, of Janet Lawson Architectural Illustration; and Robert Lownes, of Design Visualizations; Harris Birkeland; and Aj Dumas.

I must acknowledge and thank my colleagues at the University of Wisconsin–Stout. Courtney Nystuen, a wonderful teacher and architect, contributed in many ways. Bill Wikrent, who is talented, knowledgeable, and very generous, deserves special thanks. And this edition would not have been finished in this decade without the gift of a sabbatical: thank you to the Sabbatical Committee. Jack Zellner and Kristine Recker Simpson deserve thanks for willingly contributing their fine work.

This project would not have been possible without the help of my husband, Roger Parenteau, support from our daughter, Anna, and a fair amount of terror generated by young Luc to keep things interesting.

INTRODUCTION

The practice of interior design is complex and continues to evolve. Technological and societal changes fueled by the industrial revolution and continued by more recent advancements in technology have shaped the profession in decisive ways. In a world that requires increasing professional specialization, interior design has gained recognition as an independent discipline. Work done by groundbreaking interior designers in the twentieth century has enhanced the built environment and increased the visibility of the profession. The development of educational standards, professional organizations, a qualifying exam, and legislative certification has increased the quality and credibility of practitioners and fostered design excellence.

The design of interior environments requires specialized methods of presentation, which are often omitted in standard architecture texts. This book identifies methods used in the visual presentation of interior spaces and articulates them in written and visual language. Various phases of the design process are discussed in order to reveal the connection between process and presentation. Some often overlooked basic principles of graphic design and portfolio design are also discussed.

Intended as a primer on interior design vi-

sual communication, this book presents a range of styles and techniques. The goal is to provide students and practitioners with information on visual presentation techniques and a variety of methods and materials. It is important to note that this book is not intended to impart ways of camouflaging poorly conceived design work with tricky techniques. This is not a rendering book; it is instead a portfolio of methods of communication. Good design requires, and deserves, adequate and appropriate presentation.

My desire to write the first edition of this book grew from an ongoing pedagogical need: to show students a range of examples of presentation techniques and styles. Often design students look for the “right” way to create a presentation, and this is a mistake because there are many ways of creating successful presentations. Interior design education has suffered from a lack of documentation of the many possible modes of presentation and a lack of specialized information for students. I have found that students exposed to a variety of methods and specific examples create appropriate and useful presentations, whereas students left uninformed about the possibilities often repeat the same lackluster or inappropriate type of presentation project after project.

Unlike those found in many books on rendering and presentation, many of the examples included here were executed by undergraduate design students. I've included these because I want students to see real examples of developing skills. It is important for all designers to develop drawing and sketching skills. Drawing and model building should not be reserved for the final presentation of fully developed designs. Instead, sketching, drawing, and model building must be seen as ways of seeing and exploring throughout the design process — from beginning to final presentation. I admit my desire to get interior designers to draw (and draw and draw). It is the best way to learn to visualize and develop good work.

Research for this edition made clear the significant role computer-generated imagery plays in current practice and in the academic world. Most designers use computers in creating visual presentations. Despite this, hand drawing continues to be a useful tool, particularly in producing perspective drawings. Quickly created perspective drawings offer the benefit of providing designers a visualization tool early in the design process, prior to the time finalized design drawings are complete. In addition, skills learned in drawing by hand transfer directly to computer modeling. The ability to create quick perspective sketches in client conferences and in team meetings is a highly useful tool; this is something that I have heard many times from those hiring designers. For these reasons, numerous examples of quick sketching techniques are included. Examples of computer-generated three-dimensional views are also provided because some designers create these after refining the design by hand sketching. I believe hand drawing and computer-generated imagery can sit side by side in the designer's tool kit.

I have included some examples of work done by professional illustrators, digital illustrators, and model makers to demonstrate what is being done in current practice by spe-

cialists. The work is beautiful and highly professional, and it depicts what top professionals can produce. We can learn from this work and allow it to influence our design drawings and in-process presentations.

Most chapters begin with information about specific materials and tools. Each provides written instruction in the text as well as step-by-step illustrated instructions. In teaching I've found that some students learn best by reading and others by following brief graphic guides. My goal is to provide instruction for a variety of learning styles.

For the most part this book covers conventional methods of drawing and presentation. The one exception is the material on perspective, where I have focused on estimated perspective sketching. Estimated sketching requires "eyeballing" perspectives, a method that I have found works well for students, although many educators find it horrifying. In addition to estimated sketching, information on more traditional methods of perspective drawing is included.

The examples and projects presented here range in scope from small residential student projects to huge public interior spaces designed by professionals. The projects range from purely decorative treatment of interior elements to space planning and interior architecture. It is important to note that some of the professional projects presented here are the work of architects involved in the design of interior space and exhibitions. This points to the overlap of the two professions, the breadth of current design practice, and some confusion over what the design of interior space should be called. When is it appropriate to use the term *interior architecture*? When *interior design*? Certainly that debate cannot be addressed in a book on presentation methods. For the book's title, I chose to use the term *interior design* because it describes the design of interior space, which is clearly a distinct area of specialization.

ORTHOGRAPHIC DRAWINGS

INTRODUCTION TO DRAWING

Interior design is a multifaceted and ever-changing discipline. The practice of interior design continues to evolve due to technological as well as societal changes. Computers, the Internet, and fax machines have deeply influenced and changed its practice. For example, use of computer-aided drafting and design (CADD) is standard operating procedure in current design practice, whereas 15 years ago it was just beginning to gain in popularity.

In addition to undergoing rapid technological advancement, the profession of interior design has grown in terms of scope of work, specialization, and the range of design practiced. The growth of the profession, combined with efforts toward standards and licensing, have increased its legitimacy as a serious professional discipline.

Constant change in society and in one's profession can be overwhelming and a bit frightening, and for that reason it is useful to consider the elements that remain constant in an evolving profession. In many ways, the design process itself remains constant — whether practiced with a stick in the sand, a technical pen, or a powerful computer. There are many stories about designers drawing preliminary sketches on cock-

tail napkins or cheeseburger wrappers, and these stories lead us to a simple truth.

Professional designers conduct research, take piles of information, inspiration, and hard work, and wrap them all together in what is referred to as the design process, to create meaningful and useful environments. A constant and key factor in interior design is the fact that human beings — and other living creatures — occupy and move within interior spaces. To create interior environments, professional designers must engage in a process that involves research, understanding, idea generation, evaluation, and documentation. These are significant constants that exist in a changing world.

For the most part this book covers the process designers engage in and the related presentation techniques used in design communication. These processes and basic concepts are consistent, whether generated manually or by computer. Some examples included here were created manually, whereas others were computer generated. Regardless of how drawings and graphics are generated, they are part of a process of discovery, exploration, and creation.

This chapter covers what is often referred to as drafting, as well as other forms of two-dimensional graphics. The term DRAFTING refers

to measured drawings done with specialized tools and equipment. The truth is that not all drawings used in the process of interior design are drawn with the aid of tools. Often those drawings created in the preliminary stages of the design process are rough sketches and involve little use of drafting tools or equipment. As designs are refined, there is clearly a need for highly accurate, measured, and detailed drawings, and these are drafted with tools.

This chapter presents the materials, equipment, and tools used for manually drafted and freehand design drawings, as well as an overview of the most common drawings used in interior design practice. The information presented in this chapter is meant as an overview, not a definitive drawing or drafting reference.

equipment used to create the variety of drawings and graphics are numerous and ever proliferating. The media and tools selected must be appropriate to the task at hand. This means that their proper selection requires careful consideration of the drawing type and use, as well as an understanding of the available products. Currently many schools and most firms create the majority of design drawings digitally, using CADD programs. However, some students begin the study of drafting by creating drawings manually; for that reason a description of manual drawing tools and equipment follows. Figure 1-1 illustrates commonly used manual drafting and drawing materials and equipment, which are discussed as follows.

DRAWING SURFACES

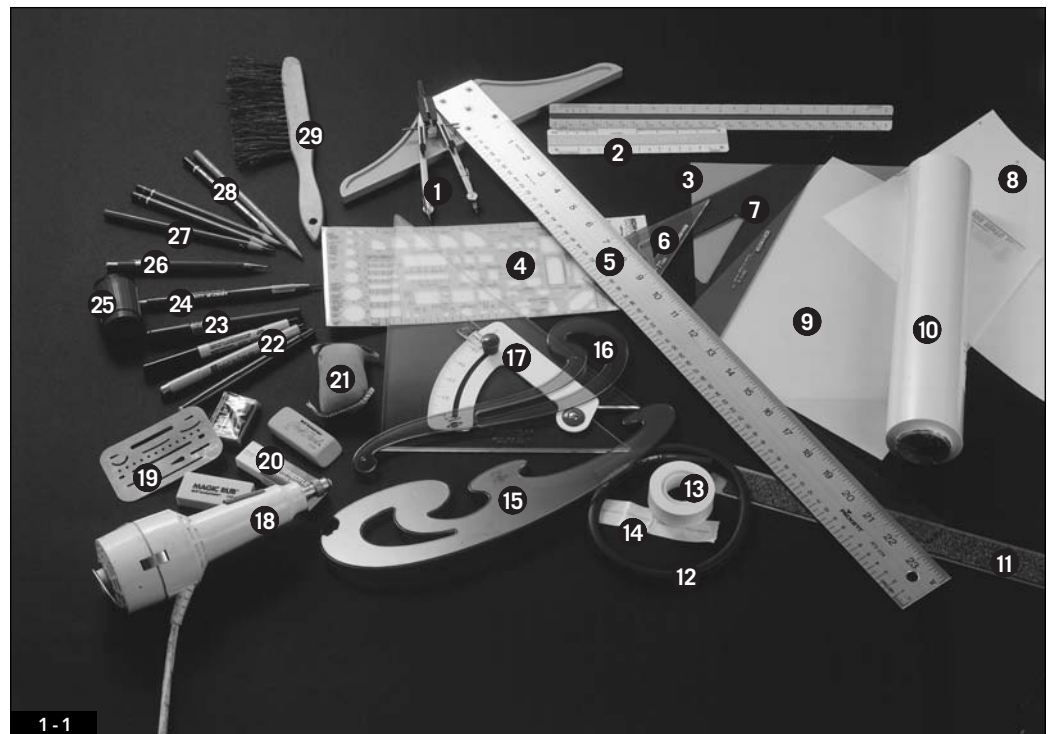
The type of drawing surface selected directly affects the quality of the drawn image. Some surfaces accept pencil and ink readily and allow for clear, consistent imagery. Transparent papers allow for diazo reproduction (blue-printing) and can be used as an overlay to continue a drawing by transferring details from one sheet to another. Drawings produced on

MATERIALS, TOOLS, AND EQUIPMENT

The graphics and drawings used in interior design practice vary, ranging from conceptual sketches and rough layouts to measured technical drawings. The materials, tools, and

FIGURE 1-1

1. Compass
2. Architectural scales
3. Drafting film
4. Template
5. T square
6. Lettering triangle
7. Triangle
8. Appliqué film
9. Vellum
10. Tracing paper (roll)
11. Cork-backed ruler
12. Flexible curve
13. Drafting tape
14. Drafting dots
15. French curve
16. French curve
17. Adjustable triangle
18. Electric eraser
19. Eraser shield
20. Erasers
21. Dry-cleaning pad
22. Disposable ink pens
23. Technical pen
24. Lead holder
25. Lead pointer
26. Mechanical pencil
27. Wooden graphite pencils
28. Layout pencils
29. Drafting brush



nontransparent surfaces must be reproduced by photocopying, photographic processes, or computer reproduction (scanning).

TRACING PAPER is the most common paper surface for sketching in-process design drawings and graphics. Known in various parts of the country as “trace,” “flimsy,” and “bumwad,” this paper is highly transparent and relatively inexpensive. Tracing paper is available in cut sheets and in rolls in a variety of sizes. Rolls of tracing paper are best for interior design drawing because of the varying sizes of drawings required. Tracing paper is available in white, buff, and canary (yellow). Most designers have a personal color preference based on previous experience.

Because it is relatively inexpensive, tracing paper can be used to develop preliminary sketches and for in-process drawings. This allows for exploration through the creation of many sketches and the generation of many ideas. Tracing paper also works very well overlaid on drawings for transfer and refinement of images. Often many layers of tracing paper are overlaid as a design is refined or as a complicated perspective drawing is constructed.

Images on tracing paper can be reproduced with the use of a diazo print machine and can be easily photocopied. However, it is very delicate and subject to tearing and crumpling. For this reason, it is not the best surface for a drawing that is to be extensively reproduced.

Most final design drawings created manually are drawn on DRAFTING VELLUM, a transparent paper available in a variety of finishes and weights (thicknesses) and most often white. Drafting vellum should have a high rag or cotton content, giving it a rich finish, strength, and good stability. It is excellent for line work generated with graphite pencils. Good-quality diazo prints can be run from drafting vellum originals. Vellum is also photocopied, scanned, and photographed with excellent results.

In addition to vellum, PLASTIC DRAFTING FILMS are used for final drawings and for some design presentations. Plastic (and polyester)

drafting films are expensive, tear resistant, and generally do not react to fluctuations in temperature or humidity (as do many paper surfaces). They accept ink beautifully and allow for easy ink erasure. These films require the use of special pencils. Drafting film originals produce excellent diazo prints and photocopies. For years prior to the use of CADD, plastic film and ink drawings were considered the finest for reproduction.

ADHESIVE REPRODUCTION FILM, also called appliqué film and often referred to generically as “sticky back,” is used on vellum or bond drawings. Typed or printed images can be drawn or photocopied onto adhesive reproduction film. The film is then carefully measured and cut and applied to the vellum or bond paper. Matte appliqué films accept pencil well; some types are repositionable, but others are not. High-heat photocopiers may cause buckling of certain appliqué films; however, Rayven™ produces a variety of films for low-, medium-, and high-heat copiers.

Tracing paper, drafting vellum, and drafting film are commonly used in manual drawing. Nontransparent papers such as fine art drawing papers can be used with excellent results, yet they cannot be overlaid and do not reproduce well. The nature of the design process requires constant exploration and change, and transparent papers are well suited to this requirement.

Currently design drawings are reproduced on large-format photocopying machines. In many firms and studios large bond paper copies have replaced blueprints as the preferred method of reproduction.

LINE- AND MARK-MAKING IMPLEMENTS

Lines and marks record spatial information in interior design drawings and graphics. Control of line thickness and the type of stroke used are important and convey specific information. Thus, the implement used to create lines and marks is a key factor in design drawing.

GRAPHITE is mixed with clay and other elements to produce what are commonly called “lead” pencils. Graphite pencils, used in design drawing, are available in a range of hardnesses based on the mixture of clay to graphite. Graphite pencils and replaceable “leads” are coded with a standard rating system: H stands for hard, B stands for black (the softer leads). The number found next to the H or B refers to the level of hardness. For example, a 6B is softer than a 2B; an 8H is very hard. F-rated leads are at the center of the range, and HB leads are slightly harder than Bs. The softer leads are used in sketching and rendering, whereas H, 2H, and sometimes F leads are most commonly used in drafting. Polymer-based leads, which are used on plastic and polyester drafting films, are often graded differently than graphite leads.

The graphite described above is used in a variety of mark-making implements. WOODEN DRAWING PENCILS involve a graphite mixture encased in wood and are sharpened like standard wooden writing pencils. MECHANICAL PENCILS are hollow instruments that hold very fine graphite leads. These are sold in a variety of lead widths to create a range of line weights. LEAD HOLDERS are hollow implements that accept thicker leads than mechanical pencils. Although lead holders do not allow for any variety in lead widths, they do accept a range of lead types in terms of softness. Lead holders require the use of a specialized sharpener, known as a LEAD POINTER.

Specialized colored drafting pencils and leads can be used to develop drawings prior to hard-lining them. NON-PHOTO-BLUE colored pencils do not reproduce when photographed; however, they sometimes reproduce when photocopied. NONPRINT colored pencils do not reproduce in diazo prints. When appropriate, both types of pencil can be used to lay out drawings prior to completion.

One of the significant advantages of using graphite pencils is the ease of erasing. Harder leads are often the most difficult to erase,

whereas soft pencil marks are easily lifted with gray kneaded erasers or pink erasers. Plastic and film erasers can be used to remove marks made with harder leads. A metal ERASER SHIELD is used to protect the drawing surface from unwanted erasing. DRY CLEANING PADS, containing art gum powder that sifts onto drawing surfaces, are available to keep drawings clean.

TECHNICAL PENS have tubular points and refillable ink reservoirs. They are available in a range of point sizes that allow for absolute control of line weight. Because they employ black ink and metal points, technical pens create the finest line work of any drawing implement. They must be used with the appropriate ink, as specified by the manufacturer.

DISPOSABLE TECHNICAL PENS combine a tubular support with a felt tip and are available in a range of point sizes. These pens require no maintenance or cleaning, making them easy to use. Although disposable pens have been known to skip, causing inconsistent line work, they have improved a great deal recently and are becoming very popular.

FELT-TIP PENS are available in a range of styles and point sizes; they are often used in sketching, exploration, and rendering. Felt-tip pens are not generally used for refined drafted drawings or working drawings.

Erasing ink marks is rather difficult and requires special erasers. Hard plastic erasers can remove ink. However, an ELECTRIC ERASER with the appropriate eraser insert is most useful in removing ink. Electric erasers are very effective but must always be used with an eraser shield. Ink marks on film are erased more easily than those on vellum. Sharp razor blades are sometimes used to scrape ink away from drawing surfaces.

A quality DRAWING BOARD is required for the creation of successful drawings. Serious students must purchase a top-quality drawing board if possible. The board should accommodate a minimum paper size of 24" by 36". Drawing boards should be covered with a specialized vinyl drawing surface, sold at drafting

and art supply stores. The vinyl surface helps to improve line consistency.

T SQUARES are used in conjunction with the edge of the drawing board to provide an accurate horizontal line or right angle for drawings. PARALLEL RULERS can be attached to drawing boards using a system of screws, cables, and pulleys. This creates the sliding straightedge that is the standard in professional practice. Triangles are used with a T square to create vertical and angled lines. Adjustable and 45/45-degree and 30/60-degree triangles are readily available. Triangles should be fairly clear, easy to see through, and as substantial as possible. An inking triangle with raised edges is required when using ink. It is also useful to have a tiny triangle on hand as an aid in lettering. Triangles should never be used as a cutting edge; this will ruin them. A cork-backed metal ruler is the best edge for cutting.

DRAFTING TAPE or PRECUT DRAFTING DOTS are used to attach drawings to drawing boards. Unlike standard masking and household tape, drafting tape and dots are easy to remove from both the paper and the drawing board. A DRAFTING BRUSH is used to remove eraser debris from the drawing surface.

Measured interior design drawings require the use of a proportional scale. This allows for large areas to be reduced in size to fit on relatively small drawings. An ARCHITECTURAL SCALE is the standard scale ruler used in interior design drawing. Architectural scales are marked in a manner that makes measuring in scale fairly easy. For example, in 1/4-inch scale the ruler is marked so that each 1/4 inch measures 1 foot in scale. Architectural scales have inches marked below the zero marking; these are used to measure elements that are not exact to the foot. In transferring measurements, great care should be taken to record accurate dimensions. Scale rulers should never be used to draw against, as this would result in poorly drawn lines and damaged rulers.

TEMPLATES are most commonly constructed of plastic and are used much like stencils to

draw various shapes, including circles, ellipses, furnishings, and fixtures. The more expensive templates — constructed of heavy, durable plastic — are worth the extra money. Furniture and fixture templates work well to quickly lay out and plan spaces. However, in presentation drawings furniture and fixtures drawn from templates can appear artificial and monotonous.

FRENCH CURVES are drawn against as an aid in producing curved lines. FLEXIBLE CURVES, also known as snakes, are also used as an aid in drawing curved lines. These have flexible splines that can be bent to accommodate the desired curve. These also work well for transferring curves from one drawing surface to another. A COMPASS is used for drawing accurate circles and arcs and is useful in situations where a template does not contain a circle of the required size. It is worthwhile to purchase a good compass that adjusts easily and accepts drawing leads and ink heads.

UNDERSTANDING ORTHOGRAPHIC PROJECTION DRAWINGS

The practice of interior design requires the creation and use of various types of drawing. These can be divided into three broad categories based on purpose. The first type of drawing allows the designer to explore ideas (known as ideation) and work conceptually, often in the form of sketches. The second type allows the designer to communicate to others, including members of the design team, the client, end users, consultants, and other professionals (presentation drawings). The third type of drawing conveys the technical information required for construction (construction documents or working drawings). This book focuses on the first two types of drawing, those used for exploration and presentation or graphic communication of ideas.

Unlike ideation sketches, presentation drawings and construction documents must

use certain standard drawing conventions to clearly communicate and delineate the proposed design. Unlike fine art drawing, design drawing requires adherence to conventions, proportional scale, and accuracy of line. Design drawings are highly standardized so that they carry universal meaning. Or, as one early reviewer of this book put it, "Design drawing is much like a language; the drawings must convey the designer's meaning clearly."

The design drawings most commonly used in scaled delineation of interior environments are floor plans, interior elevations, sections, and reflected ceiling plans. These drawings, called **ORTHOGRAPHIC PROJECTIONS**, are created by projecting information about an object onto an imaginary plane known as the **PICTURE PLANE**. This direct projection of an object's dimensions allows orthographic projections to retain shape and proportion, making these drawings accurate and precise. Orthographic projection creates fragmentary views of an object, resulting in the need for multiple drawings. This means that because of their fragmentary nature orthographic projections become parts of a system and are mutually dependent on one another. By their nature, orthographic projections appear flat and lack the three-dimensional quality of perspective drawings. One way to visualize orthographic projection is to imagine an object enclosed in a transparent box. Each transparent plane of the enclosing box serves as the picture plane for that face of the object (Figure 1-2).

The view through the top plane of the enclosing box is called a **PLAN**. In a plan view only those elements seen when looking directly down at the object are drawn. Figure 1-3 depicts a roof plan.

The views through the picture planes that form the sides of the enclosing box are called **ELEVATIONS**. Elevations depict only what is visible when viewed directly through the picture plane (Figure 1-4).

A **SECTION** portrays a view of the object or building with a vertical plane sliced through it

and removed. One way of understanding section views is to imagine that a very sharp plane has been inserted into the object or building, cutting neatly into it and revealing the structure and complexity of the object's form (Figure 1-5).

A floor plan, also known as a horizontal section, portrays a view of the building with a horizontal plane sliced through it and removed, exposing the thickness of the walls and the elements below the cut line such as floor finishes and furniture (Figure 1-6).

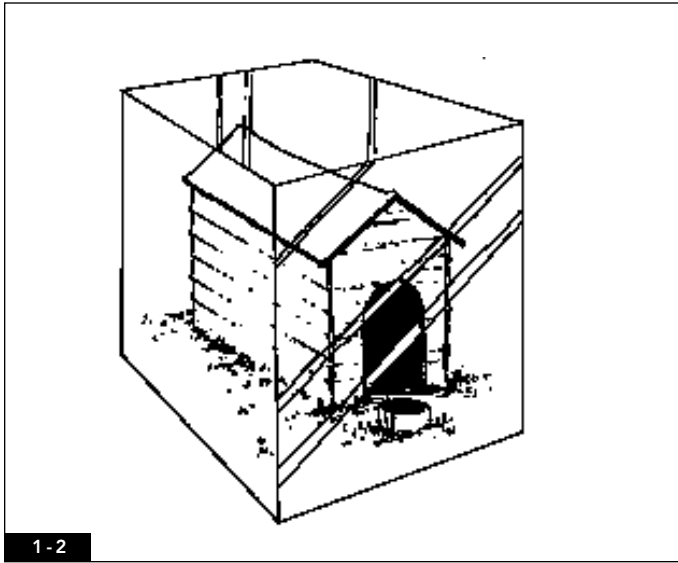
ORTHOGRAPHIC PROJECTION DRAWINGS FOR INTERIOR ENVIRONMENTS

The special orthographic projection drawings used in delineation of interior environments are based on the concepts mentioned to this point. These drawings impart information particular to interior construction.

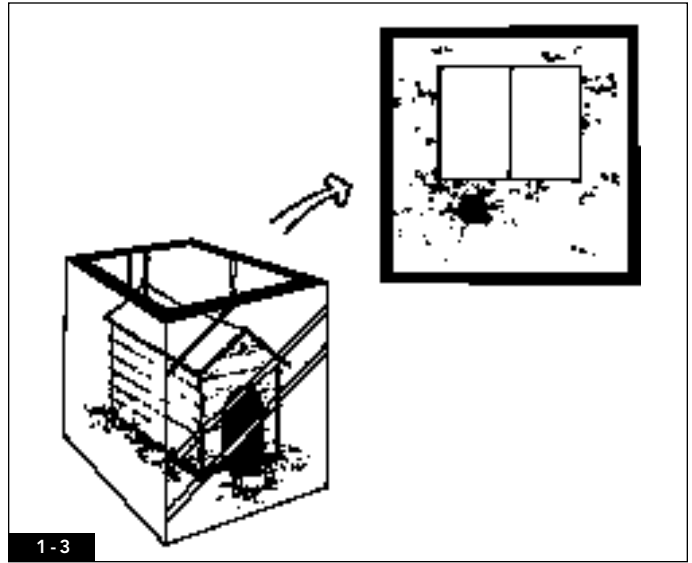
FLOOR PLANS

A **FLOOR PLAN** is a view as though looking straight down at a room or building after a horizontal cut has been made through the structure. As stated previously, a floor plan can also be called a **HORIZONTAL BUILDING SECTION** because the drawing is created by cutting through the building horizontally at roughly four to five feet above floor level and removing the top half. With the building cut open and viewed from above, important information such as wall, door, and window locations can be drawn to scale (Figure 1-7). Additional design elements such as fixtures and furniture can be drawn in appropriate locations to scale in a floor plan.

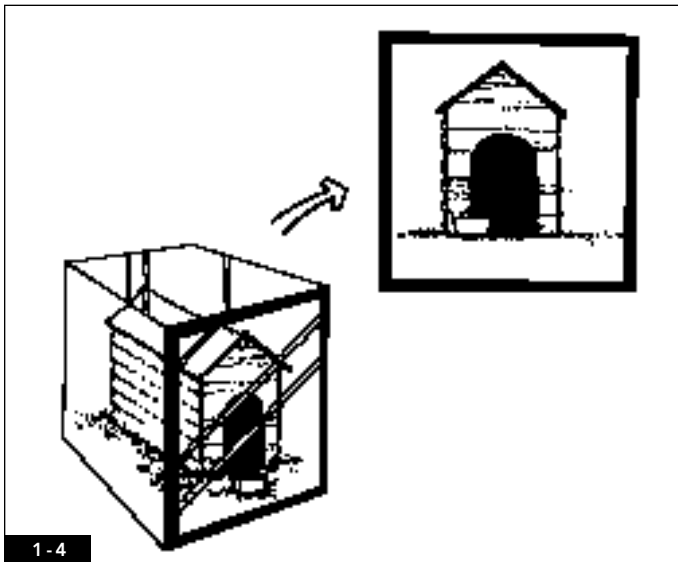
In the United States floor plans are most often drawn at a scale of $\frac{1}{8}'' = 1'0''$ or $\frac{1}{4}'' = 1'0''$, although this varies according to project conditions. Larger-scale floor plans are useful for presentation of complex or highly detailed spaces. Smaller-scale floor plans are



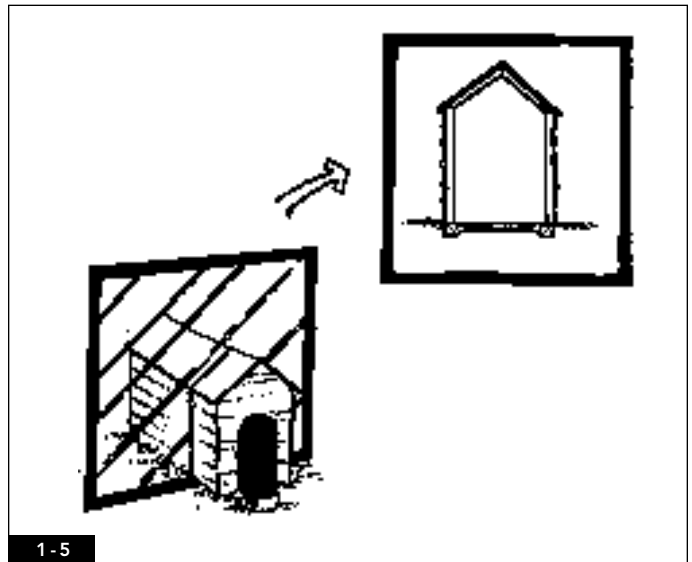
1-2



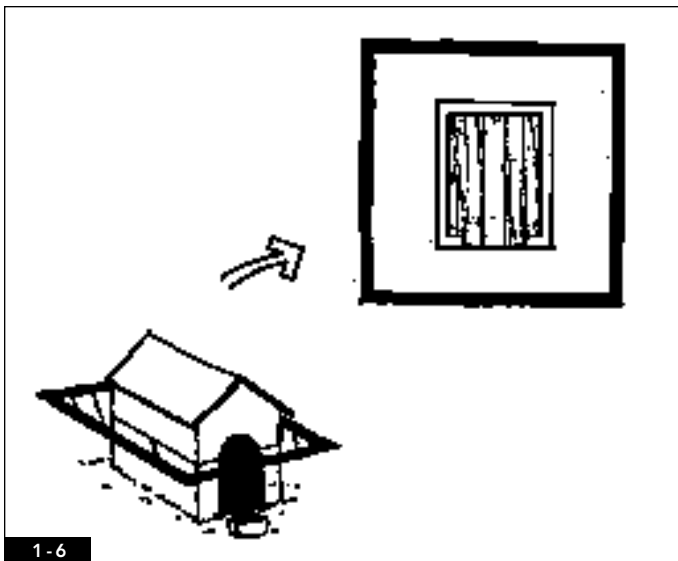
1-3



1-4



1-5



1-6

FIGURE 1-2
When an object is enclosed in a glass box, each plane of the box can serve as a picture plane.

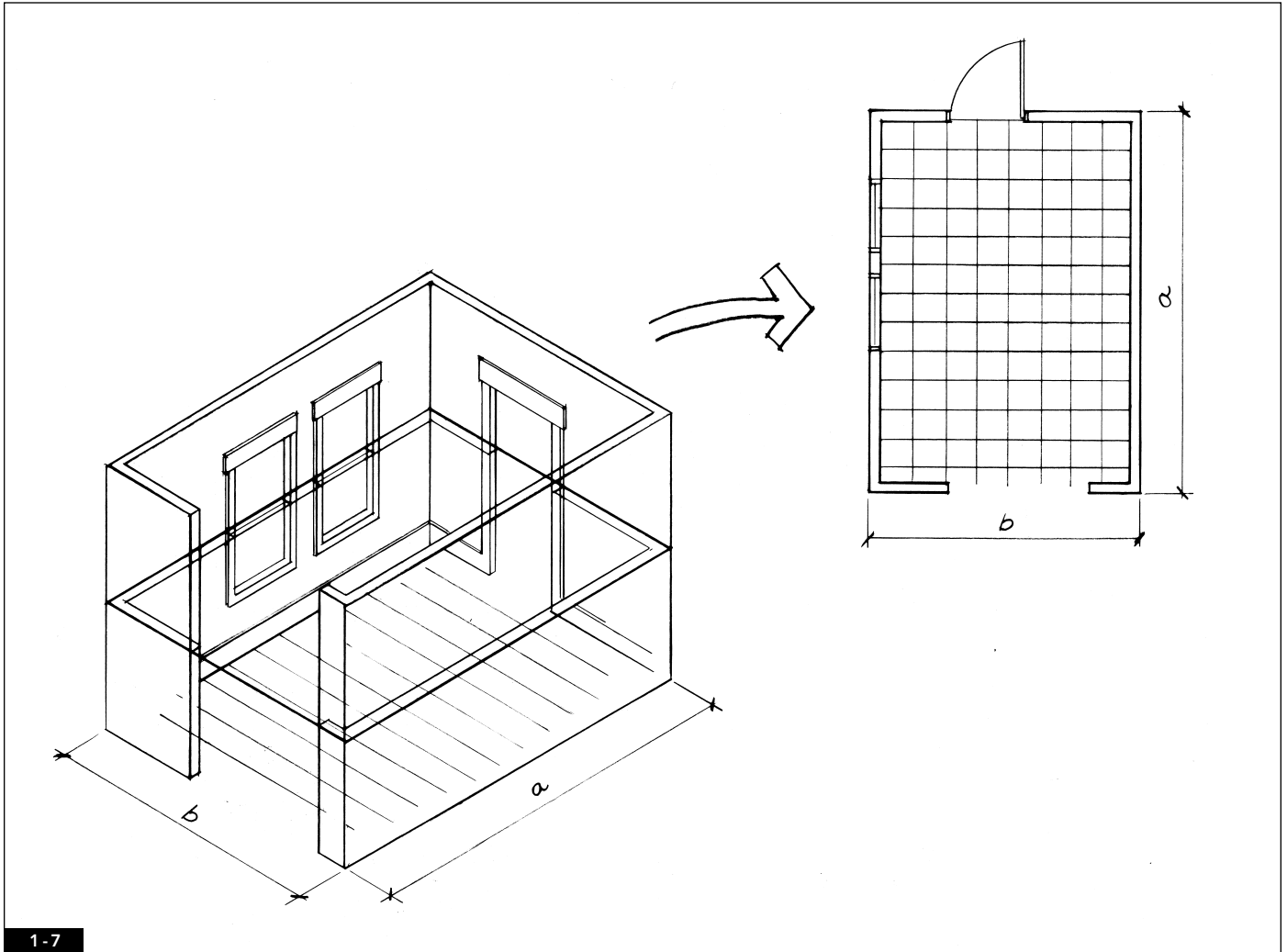
FIGURE 1-3
The view through the top plane (picture plane) creates a plan view, in this case a roof plan.

FIGURE 1-4
The view through the picture plane enclosing the side of the box is called an *elevation*.

FIGURE 1-5
A section is a view of an object with the picture plane slicing neatly through it.

FIGURE 1-6
A floor plan is a view of the building from above with a horizontal plane sliced through it and removed to expose the thickness of the walls.

Figures 1-2–1-5 drawn by Justin Thomson.



1-7

FIGURE 1-7
A floor plan is created when the picture plane cuts through the building horizontally, at 4–5' above floor level.

required for large projects and are also used as key plans in complex presentations.

In drawing floor plans it is important to convey significant spatial relationships with consistent graphic conventions. Various line weights are used to convey depths and qualities of form. In standard floor plans the boldest line weight is used to outline those elements that have been cut through and are closest to the viewer (such as full-height wall lines). An intermediate line weight is employed to outline objects that lie below the plane of the cut but above the floor plane, such as fixtures, built-ins, and furnishings. A finer line weight is used to outline surface treatment of floors and other horizontal planes, such as tile and wood grain. Objects that are hidden, such

as shelves, or above the plane of the cut are dashed or ghosted in; this must be done in a manner that is consistent throughout the presentation.

Figures 1-8a and 1-8b are examples of town-house floor plans drawn using AutoCAD software and employing standard conventions and reference symbols. Figures 1-9a and 1-9b are freehand-drawn (no tools) floor plans of the town house.

Standard doors are generally drawn open at 90 degrees to the wall and are often shown with the arc of their swing. The door frame and the space it requires must be considered in the drawing of the door system (this means the dimensions of the frame must be considered). Windowsills are typically outlined, often

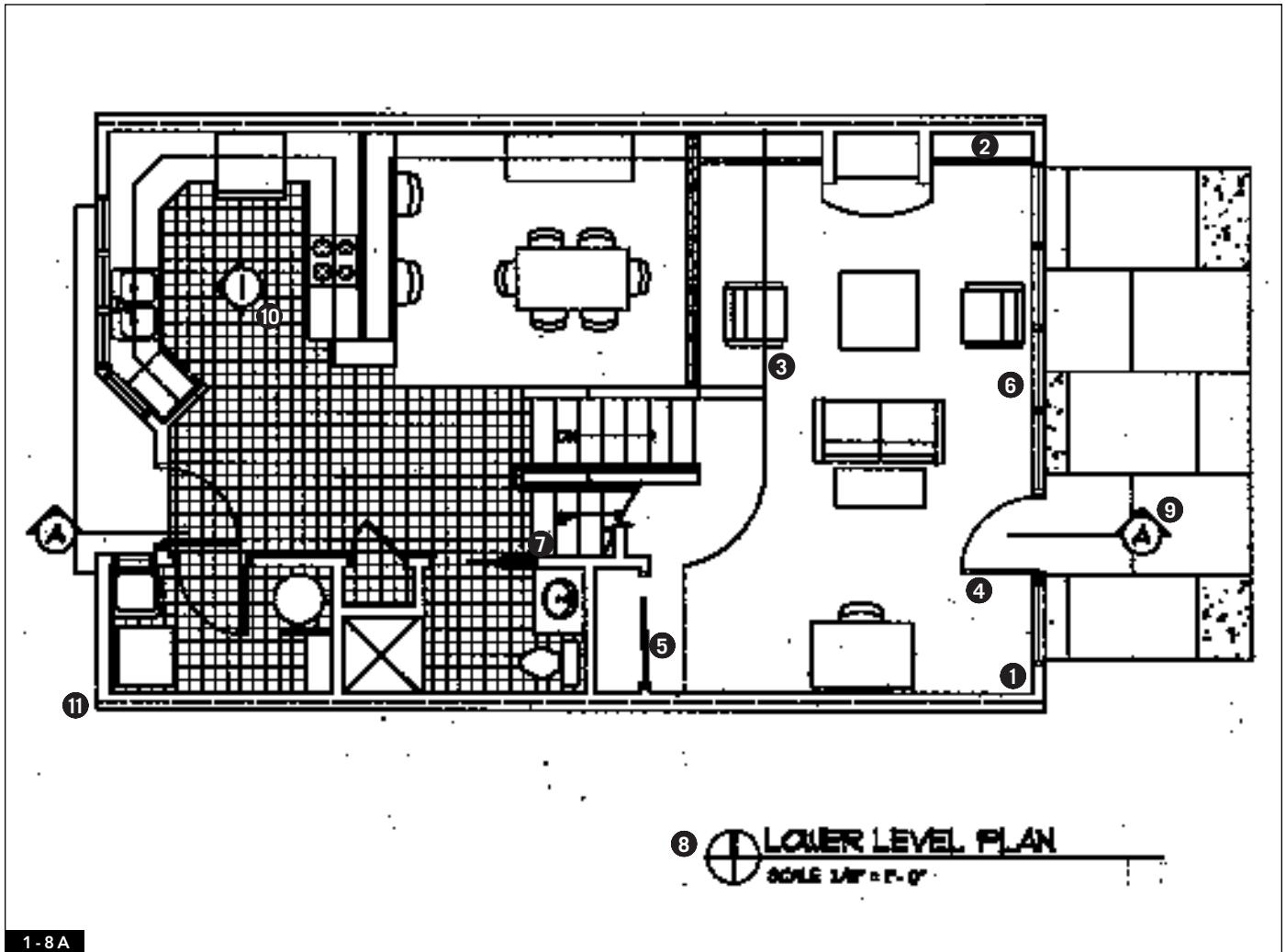


FIGURE 1-8A
Town-house lower-level floor plan employing standard drafting conventions.

1. Boldest lines indicate the location of cut, meaning full-height walls are bold.
2. Fixtures, cabinetry, and finish materials are drawn with progressively lighter lines as they recede from the cut location.
3. Elements that are above or below the cutline (such as cabinets and soffits) are indicated with dashed lines.
4. Standard doors are drawn open at 90 degrees with the arc of swing shown.
5. Specialized doors such as bifold doors, sliding doors, and pocket doors are drawn in a way that indicates size and construction.
6. Window glass and sill lines are shown, often with a lighter-weight line than walls.
7. Stairs are drawn as broken off past the line of the cut; a special cutline is used. An arrow indicating direction from the level of the plan and the words *up* or *down (dn.)* are included.
8. A title, North arrow, and scale notation are required on all plans.
9. This is a section reference symbol. The arrow indicates the direction of the section view. The letter indicates the particular drawing that is referenced.
10. This is an elevation reference symbol. The arrow indicates the direction of the elevation view. The number indicates the particular drawing that is referenced.
11. This is a centerline, indicating the centerline of the shared wall in the town house.

Design by Courtney Nystuen.

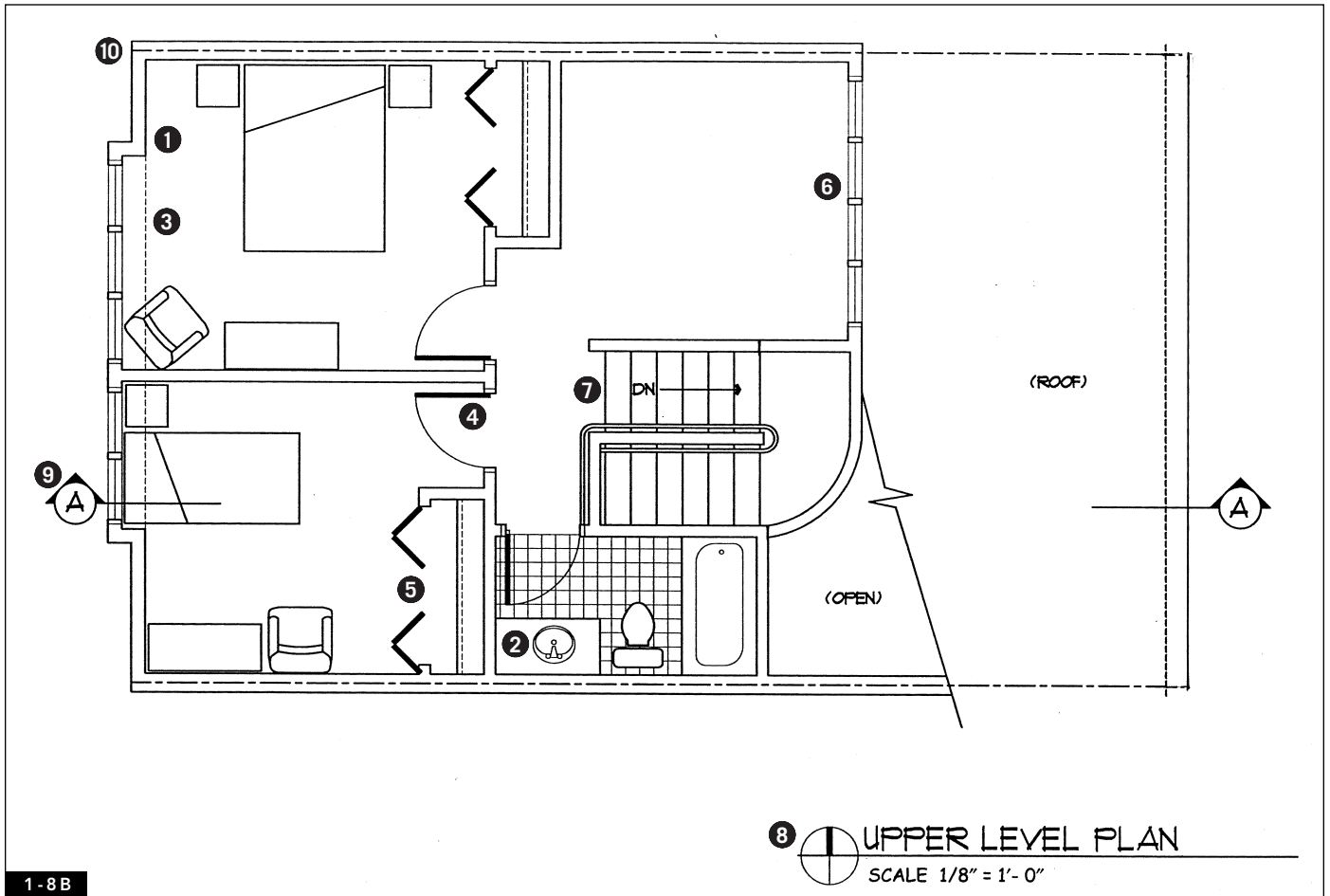


FIGURE 1-8B

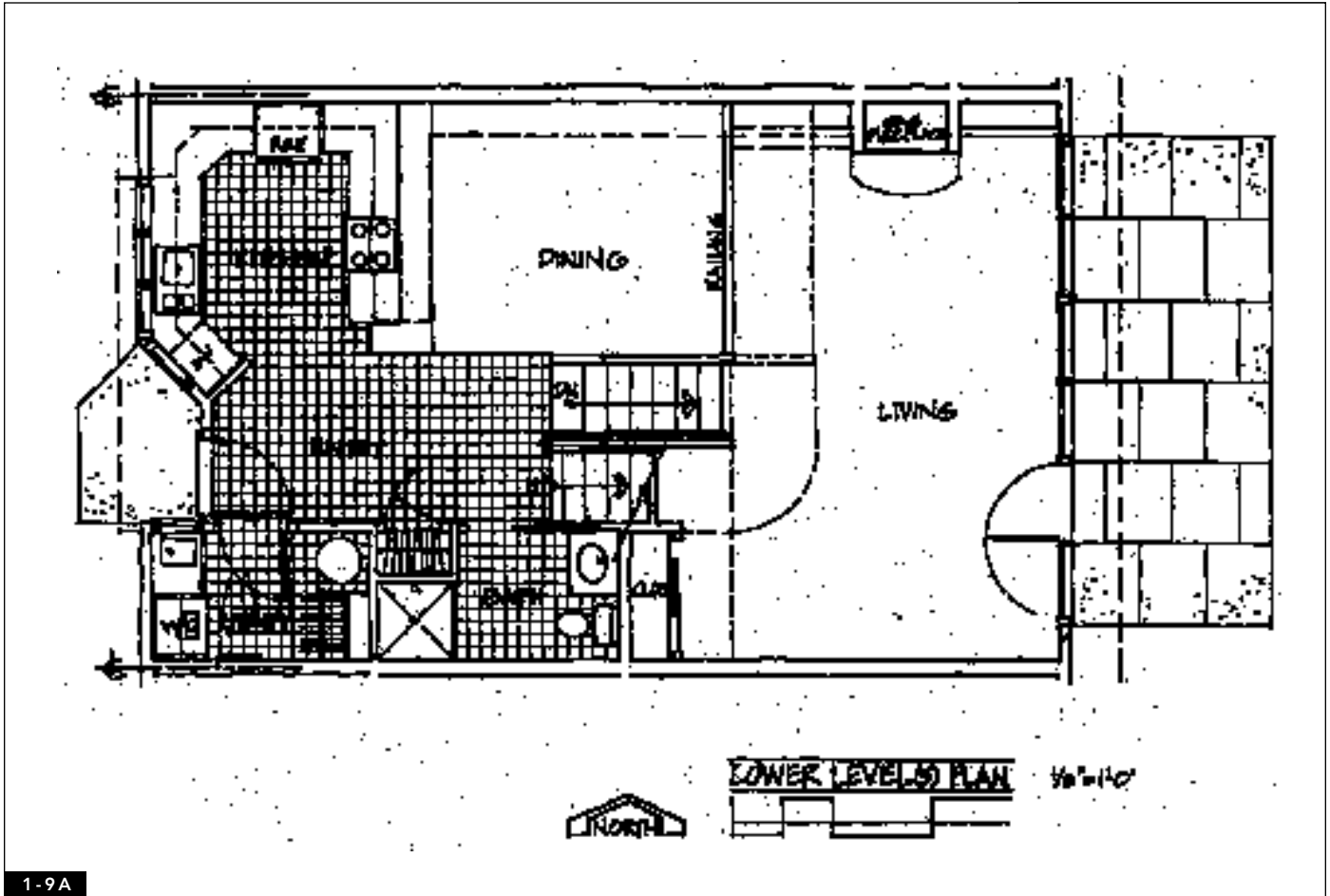
Town-house upper-level floor plan employing standard drafting conventions.

1. Boldest lines indicate the location of cut, meaning full-height walls are bold.
2. Fixtures, cabinetry, and finish materials are drawn with progressively lighter lines as they recede from the cut location.
3. Elements that are above or below the cutline (such as cabinets and soffits) are indicated with dashed lines.
4. Standard doors are drawn open at 90 degrees with the arc of swing shown.
5. Specialized doors such as bifold doors, sliding doors, and pocket doors are drawn in a way that indicates size and construction.
6. Window glass and sill lines are shown, often with a lighter-weight line than walls.
7. Stairs are drawn as broken off past the line of the cut; a special cutline is used. An arrow indicating direction from the level of the plan and the words *up* or *down (dn.)* are included.
8. A title, North arrow, and scale notation are required on all plans.

9. This is a section reference symbol. The arrow indicates the direction of the section view. The letter indicates the particular drawing that is referenced.

10. This is a centerline, indicating the centerline of the shared wall in the town-house.

Design by Courtney Nystuen.



1-9A

with a lighter line weight at the sill only. Window frames and sheets of glass are shown in various detail as scale allows. Stairs are generally shown as broken off past the height of the plane of the cut; this is signified with a special cutline. An arrow should be included to indicate the direction of the stairs from the level of the floor plan, with the word UP or DOWN (DN.) adjacent to the directional arrow.

A title, a North arrow, and some type of scale notation should be included on all floor plans. Scale notation can be stated numerically, for example: $\frac{1}{4}'' = 1'0''$. Current practice often requires the use of a graphic scaling device, which allows for reduction, enlargement, and electronic transmission of the drawings.

Symbols relating the floor plan to additional orthographic views or details are often drawn on the floor plan and serve as cross-references.

Successful floor plan presentation drawings require a thorough understanding of drafting conventions. Presentation floor plans may be drawn fastidiously with tools or drawn freehand. Regardless of the style of drawing, presentation floor plans must be accurate and drawn to the appropriate scale so that they communicate the design and can be used by the designer as the project moves forward. Presentation floor plans are enhanced by the use of tone, value, color, and/or other graphic devices. The graphic enhancement of floor plans is discussed in greater detail in Chapter 5.

INTERIOR ELEVATIONS

Just as exterior elevations are created to reveal exterior elements and features, interior elevations reveal the interior features of a building. One way to understand the creation of interior elevations is to imagine ourselves inside the

FIGURE 1-9A
Town-house lower-level floor plan, drawn freehand employing standard drafting conventions. Design and drawing by Courtney Nystuen.

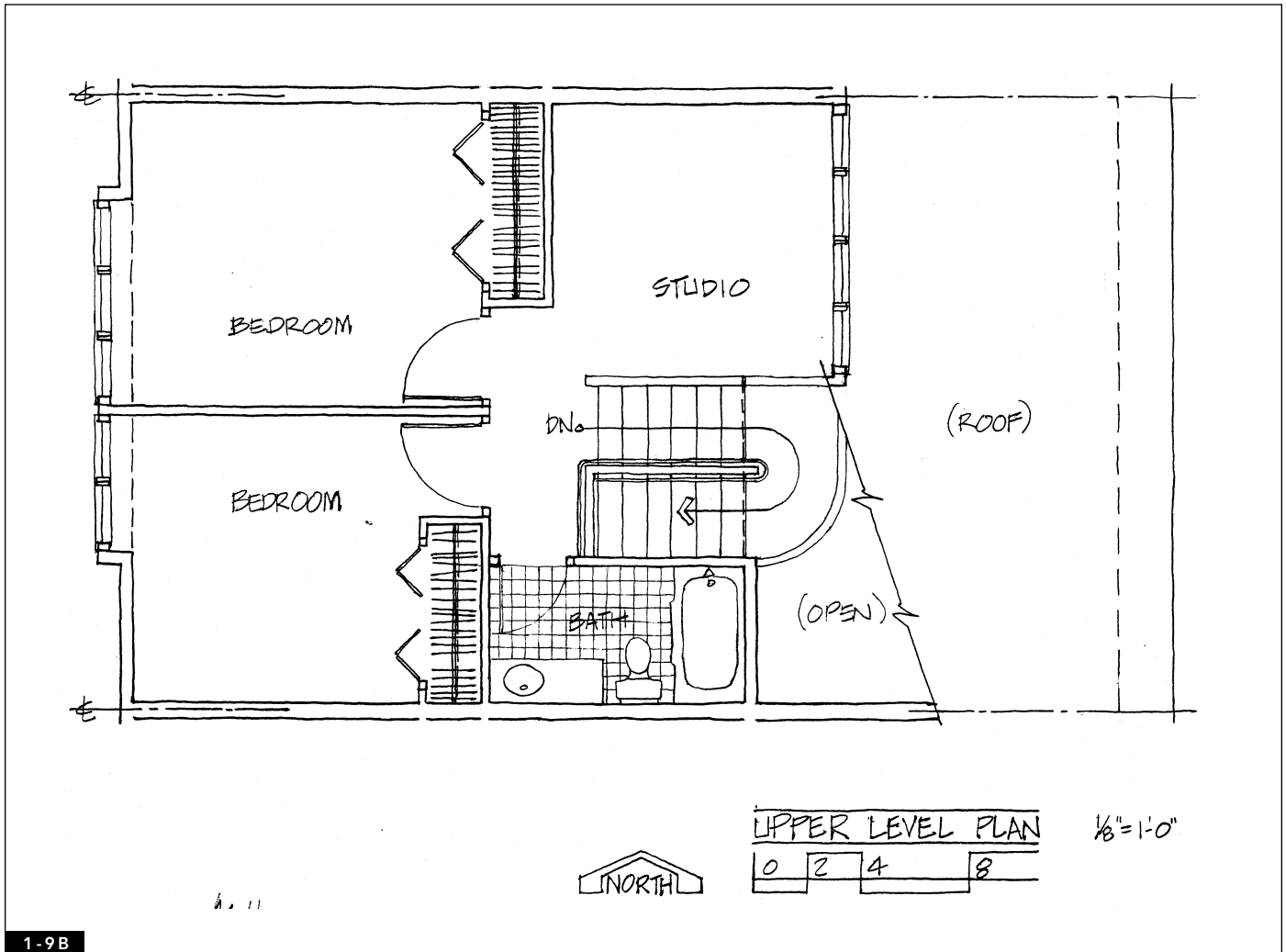


FIGURE 1-9B
 Town-house upper-level floor plan, drawn freehand employing standard drafting conventions. Design and drawing by Courtney Nystuen.

room we are drawing. Imagine standing inside a room facing one wall directly, with a large sheet of glass (the picture plane) inserted between the viewer and the wall. The interior elevation can then be created by outlining (projecting onto the picture plane) the significant features of the wall. Each wall of the room can be drawn in elevation by means of projecting what is visible as the viewer faces that wall directly (Figure 1-10).

Interior elevations are used extensively in professional practice. Successful elevations must clearly depict all interior architectural elements in a consistent scale. Interior elevations are typically drawn in a scale ranging from $\frac{1}{4}'' = 1'0''$ to $1'' = 1'0''$. Elevations drawn to depict accessories, equipment, cabinetry, fix-

tures, and design details are often drawn at $\frac{3}{8}'' = 1'0''$ or $\frac{1}{2}'' = 1'0''$. Millwork and other highly complicated elevations are often drawn at $\frac{1}{2}'' = 1'0''$ or larger.

All elevations require the use of differing line weights to clearly communicate spatial relationships. Typically, any portion of walls cut through and those closest to the viewer are drawn using a bold line weight. Receding elements become progressively lighter in line weight as they move farther from the picture plane. Some designers draw the line representing the ground line as the boldest, with those lines representing the top and sides of the wall drawn just slightly lighter in weight. Figure 1-11 depicts kitchen elevations for the town-house project.

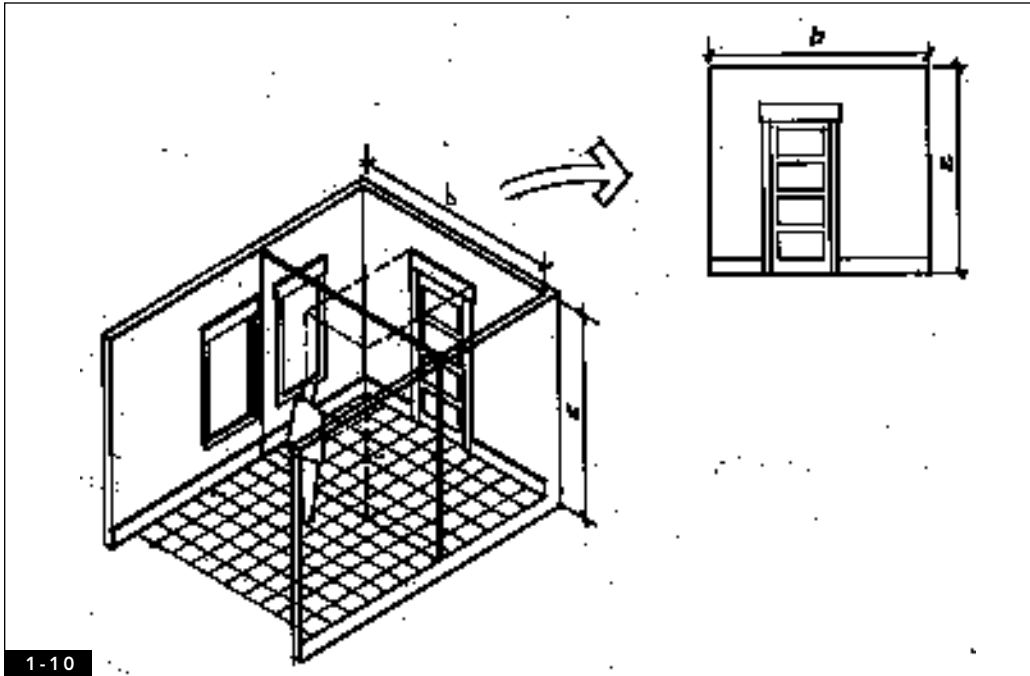


FIGURE 1-10
 In drawing interior elevations, the picture plane is inserted between the viewer and wall(s). What is visible through the picture plane is drawn in elevation.

1-10

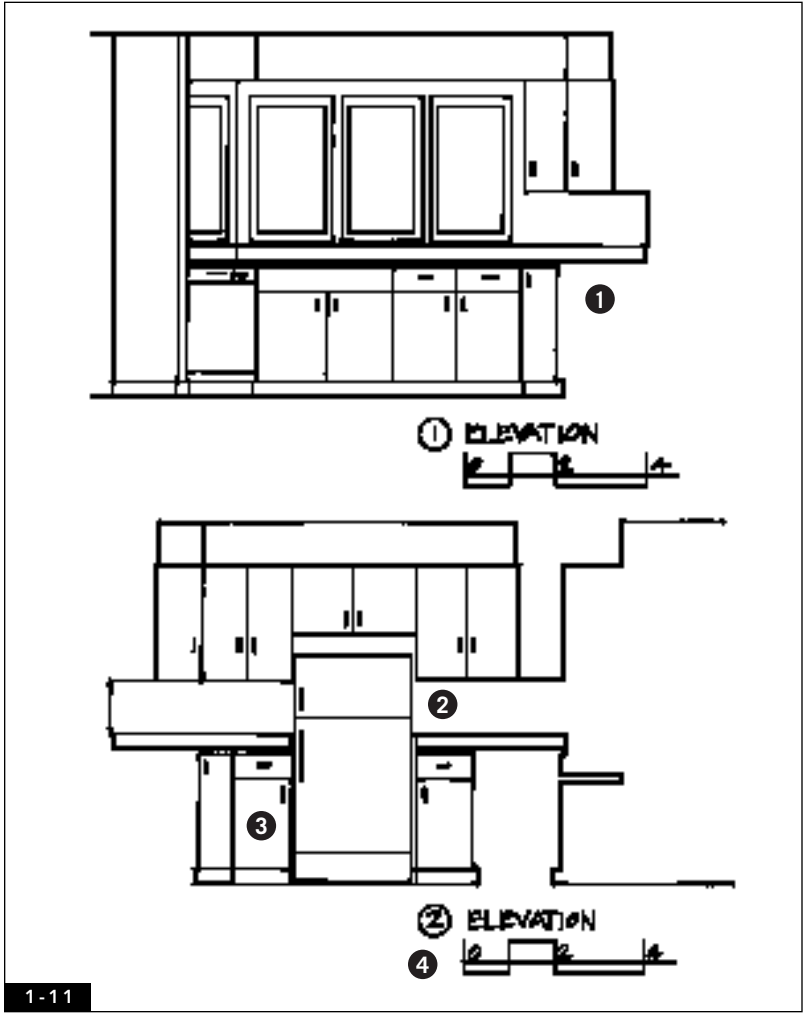


FIGURE 1-11
 Interior elevations for the town-house project.

1. Portions of walls cut into or closest to viewer are bold.
2. Receding elements are drawn with progressively lighter lines.
3. In elevations including cabinetry and or millwork, details such as countertops, door frames, and hardware should be included.
4. Interior elevations require titles, reference symbols (names or numbers), and scale notation.

Design by Courtney Nystuen.

1-11