
A complete desktop reference for professionals and students

INTERIOR ARCHITECTURE DRAFTING AND PERSPECTIVE

F R E D E R I C H. J O N E S, P h. D.

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INTERIOR ARCHITECTURE
DRAFTING AND
PERSPECTIVE

This book is dedicated to Judith, Molly, Mary, Ma and Pa.

INTRODUCTION

This book is an expanded version of *Interior Design Graphics* which was developed and tested over several years and used with hundreds of students. This version contains fully revised sections from the earlier book, which is still available separately as an inexpensive introduction to basic drafting. *Interior Architecture*, however goes well beyond the scope of the original book, and includes extensive new sections on perception, one and two point perspective and rendering. This additional material is in response to many requests from enthusiastic readers of the earlier book and it attempts to provide a more complete introduction to the world of graphic communication for the growing community of interior architecture students and professionals.

There are many books on drafting and architectural graphics. None of them, however, presents a simple explanation of design for the absolute beginner. Another important omission in those books is a representative set of examples of professional drafting and rendering with which the students and other professionals can compare their work and ideas. This comparison of notes is one of the best teaching methods. Finally, most texts do not present standards. While it is impossible to be comprehensive in a book of this size, I have provided a significant compilation of standards as well as references to enable you to research and add to your own standards collection.

I hope this new book will not only expand the utility of its predecessor as a basic drafting and drawing text but that it will also be useful to students and professional designers as both a reference text of standards and examples, and a source of ideas and information.

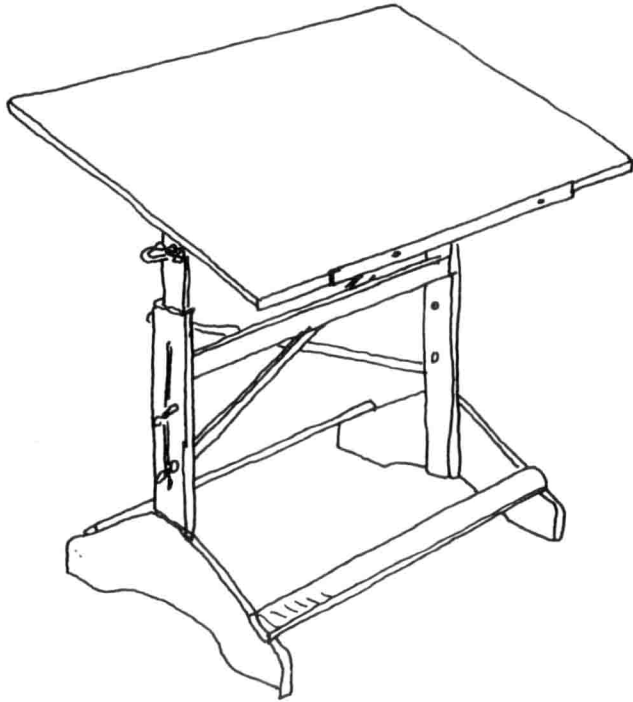
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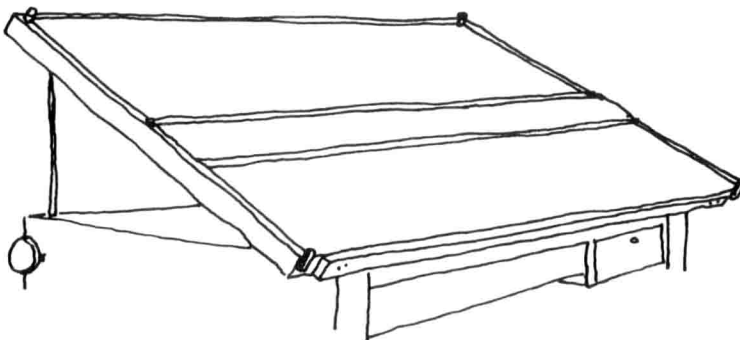
TOOLS

Tools are more than tools! They are a romantic symbol of what we do and how we do it. Tools are a badge of our profession. I cannot stress too much the importance of appropriate and quality tools. On the other hand, tools need not be the most expensive available. Moderately priced and well-made tools are available and can be as effective and satisfying as the gold plated, engraved, presentation variety.

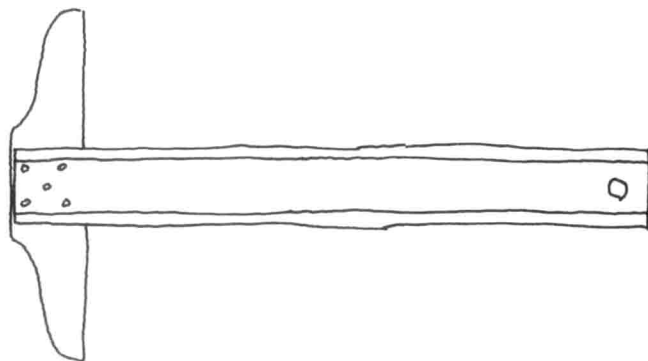
I have outlined here the basic tools you will encounter as an interior design draftsman, as well as many optional ones. Become familiar with the field and keep your eye out in the art supply store for new products. You will find, if you are like me, that you will acquire a collection of tools that will be occasionally useful, and a few treasured favorites which will be your mainstays. My favorite red drafting pencil and a tinted, 3" adjustable triangle go with me like Linus' blanket.



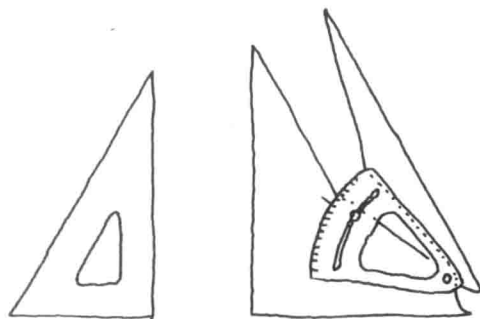
A sturdy drafting board, either a lap or table type, is necessary for serious drafting. A metal edge is required if a t-square is to be used. The surface should be covered with a drafting cover such as *Borco* plastic for maximum utility. The surface should never be cut on or punctured with tacks. Only drafting tape is acceptable for fastening drawings. The board should be larger than the largest sheet of paper you expect to use. A typical board size for interior design drawing is 30" x 42".



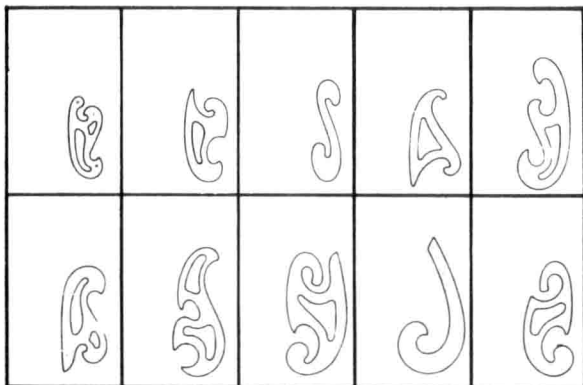
The parallel edge such as *Mayline* or *Paradraft* is mounted with cable on the drawing board. It moves smoothly up and down, remaining parallel, but without the hand tension required of the t-square. This is much preferred over the t-square for serious drafters. The kind you mount yourself on top of the board is much smoother than the one that comes integrated with the board by the factory. It is simple to install yourself.



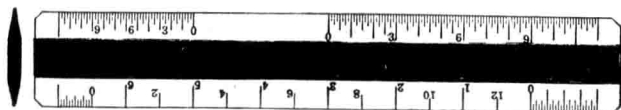
The t-square is used to draw lines parallel to the drawing board front edge. It is snuggled tightly against the drawing board edge and the pencil is drawn across the plastic edge to make a straight and parallel line. Angled and perpendicular lines are constructed with a triangle. A wooden t-square with a clear plastic edge is the preferred one for drafting.



Triangles are used for drawing lines other than horizontal. They are standard in 45°, 30°/60°, and adjustable in many sizes. The adjustable is the basic tool and an 8" triangle would be a good first choice. A large 12" 45° triangle would be a good choice for long lines. A 3" 30°/60° is good for hatching and lettering.



French curves are used to draw curved segments of objects or plans. They are drawn against with pencil or pen after an appropriate segment is selected. A selection of two or three is usually enough for interior design drafting.



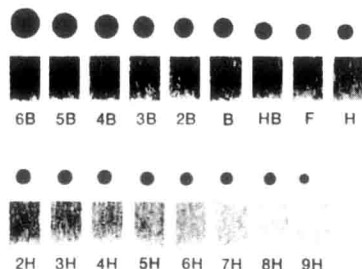
Scale rules come in triangular and flat styles, and in 6" and 12" lengths. 1/4" scale means that a foot in the actual building would be represented by 1/4" on the plan. The scale rule makes thinking in scale much easier, for in the 1/4" scale, the rule is marked just as if each 1/4" is a foot, and these "small" feet are broken into 12 "inches." Other scales like 1/8", 1/4", 1/2", 3/8", 1-1/2", and 3" are represented. A 12" triangular scale rule is the basic scale rule.



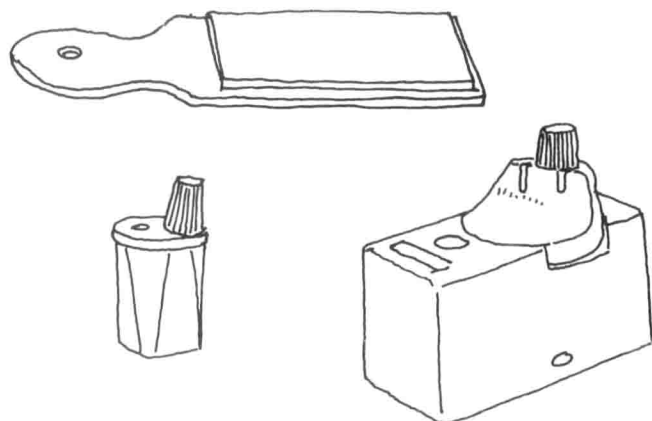
A lettering guide is used to make light pencil guidelines to assure neat and uniform lettering on plans and drawings. This is used with hand lettering, not templates. Instructions for its use come with the device.



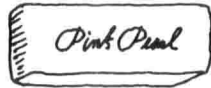
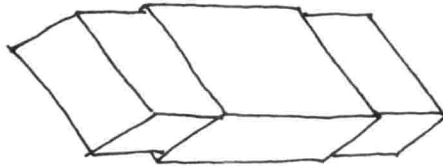
The lead holder with loose lead is superior to wood-clad pencils for drafting. It can hold any hardness of lead, and can quickly be changed and sharpened with the lead pointer. "F" lead is standard for all-around drafting.



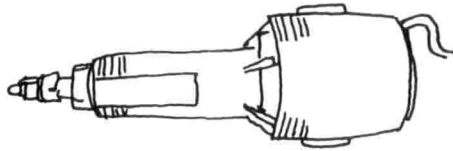
Graphite (black) drawing pencil: The term "lead" pencil is a misnomer. The principal ingredient of most drawing pencils is graphite, a black mineral variety of carbon. The degree of hardness is indicated by a standard code; this chart approximates diameters of 17 degrees.



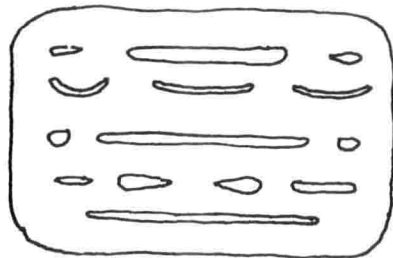
The pencil pointer is as basic as the pencil holder and lead to the drafter. The basic type with steel cutter is recommended over other types. It has several bushings for different pencil diameters, and has a gauge for blunt or sharp cutting. A sandpaper board is good for rendering and sketching. It can chisel and blunt leads for special techniques.



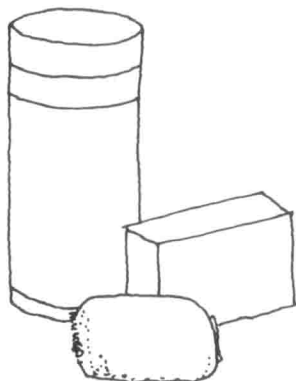
The *Magic Rub* and *Pink Pearl* are the basic erasers for drafting and come in pencil, block or plug form for electric erasers.



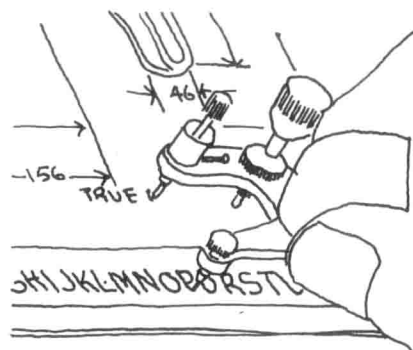
The electric eraser is a basic tool of the drafter, and comes in both cord and cordless types. It saves time and makes a much neater tracing than conventional erasers.



A stainless steel eraser shield is used to mask off parts of the drawing you don't want to erase, and to expose those you do. Just lay it over the pencil mark with the error exposed through an opening, and erase. The steel part protects the good line and makes a much neater correction.



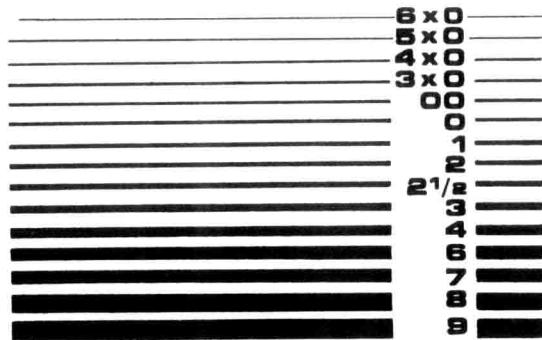
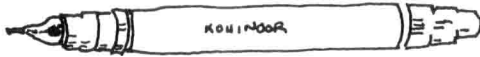
Dry cleaning pad is sprinkled on the tracing as the drafter works. It keeps the tracing clean of graphite smudges. It is best not to rub it on the paper. The material is similar to eraser dust, and absorbs the loose graphite dust that can smudge your paper.



Leroy Lettering Sets use a plastic template to guide a scribe with an ink pen to letter many sizes and styles of type on plans and drawings. This is an excellent way for neat titles. Sets come with as few as three lettering templates and a scribe.



Drafting tape is not as sticky as masking tape, and is used to hold tracing paper to the drafting board without damaging the paper or the drawing surface. Drafting tape is also less likely to leave gum on the paper and drafting board. 3/4" wide tape is the best all-around size.

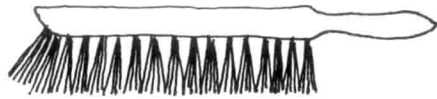


The technical pen is the basic ink drawing instrument. It is easy to use and comes in many line widths for various needs. It produces a uniform line width. A good basic set would include a 00 (very fine), 0, 2 1/2; then add 000, 1, 2, and 4. 00 is a good sketching instrument to use when you occasionally need to draft lines in ink for presentations and the like.

Colored drawing ink, one of the most versatile mediums, is used for many purposes. It comes in two basic types: translucent and opaque. Black india ink (waterproof) is opaque and best for working drawings, fine line work and washes. It is free from dye and contains carbon as a pigment. Special inks (like "acetate" ink) are made for use on water repellent drafting surfaces, such as acetate, *Mylar* film, *Lumarith*, tracing cloth and similar plastic materials, without "crawling."

Drawing inks have a reasonable degree of permanence if kept from sunlight or strong diffused light. Shellac is the usual waterproofing ingredient--therefore it is necessary to thoroughly clean pens, instruments and brushes after use. Several pen cleaners listed are good for this purpose.

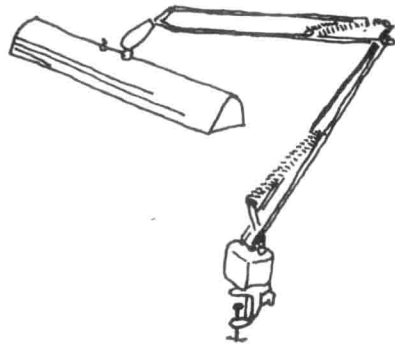
To dilute black ink, add pure water with four drops of aqual ammonia to the ounce. Tap water will suffice for washes which are applied at once. To dilute colored inks, use pure water only. Never add any acid or mix ink brands.



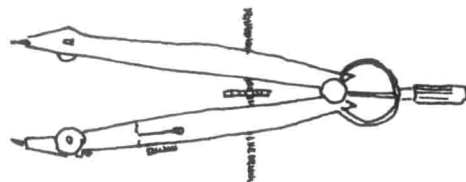
A drafting brush is ideal for dusting erasure leavings and graphite dust off your tracings and board.



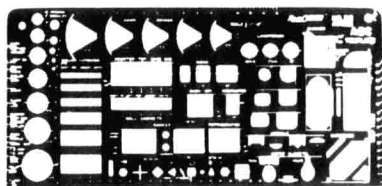
A flexible curve can take the place of French Curves, and at the same time allow you to customize your own shapes. It also allows you to transfer a shape from one drawing to another.



A good drafting board lamp is mandatory. One that gives good strong light with an opaque shade that prevents direct glare is best. Also, a flexible one that can move about to prevent reflected glare is important.

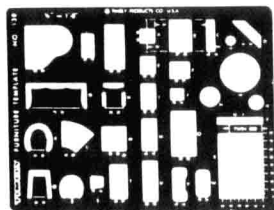


A Bow compass is handy for drawing circles and arcs. This can substitute for a circle template, and will work with both pencil and ink.

*ABC*

Scale 1/8"

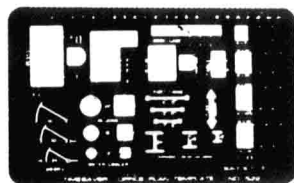
Door swings, circles, etc.



FURNITURE

Scale 1/4" Size 5-1/4" x 6-3/4"

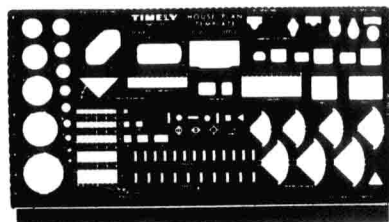
For quickly visualizing furniture space and adaptability, 65 pieces of furniture and width, depth and height of each.



OFFICE PLAN

Office equipment at 1/4" scale.

Size: 4-1/2" x 7".



HOUSE PLAN

Scale 1/4" Size 4-7/8" x 6-3/4"

Door swings, circles, etc.