Learning to see: sketching

Sketching is a technique of documenting ideas in a quick, uninhibited fashion. Learning to sketch is like learning to see in a new way for the first time. It is a method of visually thinking on paper, and it can be observational or invented. The quick fashion or loose methodology does not imply that the sketch is sloppy or uninformative. Quite the contrary—sketches provide architects with a method of representation that isolates, recalls, and documents ideas. They give architects some of the first opportunities to make design ideas physical as well as being useful for gathering information.

Like drawing, sketches can reinforce design intentions. With the fluidity of a single line or the movement found in a group of thoughtfully composed lines, sketches can reinforce the architectural narrative.

As with architectural skills, sketching can be learned, developed, and mastered with patience and time. With practice you increase your ability to capture ideas quickly, efficiently, and accurately.

This chapter will demonstrate different ways to facilitate your ability to observe and record ideas and visual data in the world around you. It will teach you to demonstrate the ideas in your mind on paper.
Sketching types

The types of sketches used by artists and architects vary depending on intent. Sketching involves the translation of existing visual information or an idea to a two-dimensional surface—the paper. To do this effectively you must know what you want to draw and how best to represent it.

**Observational sketching**

Observational sketching is one of the most common ways to record the environment. The first rule is to draw what you see and not what you know, or think you see. Sketching involves seeing, not just looking. By not letting your knowledge of an environment or familiar object muddle your observational skills, you will be able to transfer existing information to the page more easily. Look at observational drawing as an exploration, not mere documentation. As the artist, you are making decisions about what to edit and include as part of the exploration process. You can use this process to emphasize aspects of the drawing or clarify the visual information. In general, drawing from life is complex. You provide clarity and your own self-expression through your sketches of the built environment. Start each sketch with a purpose. Think about what aspect of the view you want to capture. Ask yourself what you want the narrative of the drawing to be; that is, what story you want it to convey.

**Blind sketching**

Blind sketching, another type of observational drawing, captures an object or space without the artist being distracted by accuracy. In this type of drawing, the hand and eye communicate an image onto the paper without the eye watching the hand construct the image. Your hand is not inhibited by the observations of your eyes trying to make the image “correctly.” This method of sketching allows you to concentrate on what you are seeing, and helps to develop and strengthen the control of your hand in regard to what you want to depict. Sometimes blind sketches capture the essence of the view better than a longer, observational sketch. This technique teaches you how to move your hand according to what you see. It also improves intuitive spatial coordination when practiced often.

**Sketch vs. photograph**

Sketching teaches you to see, not just to look. The act of careful observation of a scene and then the translation of that information onto paper requires a serious understanding of the subject. When sketching you can critically assess relationships, sizes, and spaces between objects. In addition, the editing process gives you control over the translation of an image to the paper. Removal of superfluous information brings clarity to the image. Like sketching, photography enables the artist to capture a moment in time. One striking difference between the two formats is that the sketching artist is forced to make conscious representational decisions about what to draw. These decisions act as a filtering process. Limit sketching from photographs because these are already filtered environments.
Plexiglass sketch

Assignment: 4

Take a piece of plexiglass, roughly 10 x 14 in (354 x 356 mm), and hold it 16–24 in (406–610 mm) away from your face in a comfortable position. Go outside and direct the plexiglass toward something that interests you. Close one eye. Literally trace over what you see using a washable marker. This assignment allows you to understand the fundamental elements of observational sketching through the method of tracing. In constructing some of your first sketches, it is much easier to trace the lines of the view. This technique focuses on what you see over what you know. It provides the structuring elements that will aid your confidence in sketching.

Unusual viewpoint

Assignment: 5

This method of observational drawing teaches you to see without being distracted by what you think you see. Find a sculpture or bust of a Greek or Roman statue. Sit obliquely to it, relatively low and close, so that the contour of the nose, cheeks, and chin become foreshortened and are presented to you in an atypical manner. This unique view forces you to look closely at the relationships between these elements (the nose, eyes, and chin) rather than drawing what you think you know. By drawing in this manner, the face becomes more of a landscape and less of what we recognize as a face.

Contour sketching

The contour sketch is a single-line drawing that focuses on the outline of the form or figure. When drawing, you should be attentive to the edge of the form and the quality of the line creating that edge. There is no tonal value expressed in this sketch type, but by varying the thickness of the line, it can express the mass of the object. In graphite, lines can accentuate, accelerate, become thin and then become thick. With each change, they indicate a subtlety in the form of the object representing roundness, a crisp edge, depth, and thickness—all with a single line.

Design sketching

Design sketches allow you to think on paper and draw what does not actually exist. The nature of the design sketch is one of exploration; it can take on any physical manifestation, including a variety of drawing types that are both two- and three-dimensional in nature. Design sketches can also be intermixed with text, photography, and other graphic images. Most of what you design does not exist until you construct it on paper; therefore it is important to learn how to draw what does not exist. Frequent sketching of existing objects hones your invented drawing skills.

Analytical sketching

Analytical sketches are less pictorial; they don’t necessarily depict spaces or objects as you would see them, but are more abstract and reductive in nature. These types of drawings help reorient a project or an existing condition to understand it better. Analytical sketches assess the essential component parts and relationships of an object or idea and record them in a visual manner.

Gesture sketching

The gesture sketch is a very quick sketch that captures the essential weight and movement of a scene. It captures an initial reaction to a view. It is made with a series of gestural lines, usually in a matter of about 30 seconds. It conveys the essence of the object, the “bones,” without being distracted by the details.
Sketching techniques

The line is the basic building block of any sketch. The quantity and quality of the lines determine the type of sketch and the technique employed. Line variations occur with different medium types, and a series of lines graphically conveyed in similar fashion can create tonal value.

Tonal value emphasizes the creation of a surface rather than the contour or edge of an object. These sketches map the lights and darks of objects and spaces. The space between objects is shaped and formed with value. Value sketches represent a series of comparisons of visual relationships—they are a tool to see those relationships in an abstract manner. When blocking out for value sketching, concentrate on the major organizing elements in the initial layout, then work the detail into the drawing. There are a number of sketching techniques that can be used to create tonal values.

Scribbling
Scribbling is a technique used to create tonal value. It employs random rounded lines that numerously overlap to create a tonal value. The emphasis is not on the individual squiggle or line but on the totality of all the lines creating a tone.

Stippling
Stippling uses a series of dots marked on the page quickly—the collection of dots is used to create tonal values and gradations. The density of the dot pattern determines the legibility of the forms. By varying the number of stipple in an area, the impression of depth or the curvature of an object can be achieved. Though this method can be very time consuming, the outcome can be quite wonderful due to the control of each individual point.

Shading
Shading, as in this example by Hugh Ferriss, emphasizes areas of tonal space over the production of a single line. The drawing is made by concentrating the marks on a surface as opposed to an edge. A sense of depth is achieved when changing values of the tone. This technique is typically associated with drawing media that quickly create large surface areas, such as charcoal, pastel, and loose graphite.

Hatching
Hatching is created by a series of diagonal lines in one direction. Cross hatching is created by a series of diagonal lines in two directions to provide tonal values in sketching.

Vertical or horizontal lines
Lines without cross hatching can also be used to create a surface tone. The collection of lines in this Paul Rudolph drawing of the Art and Architecture Building creates density, providing areas of tonal value.

Read this!
Laseau, Paul
*Freehand Sketching: An Introduction*  
W. W. Norton and Company, New York, 2004

Kahn, Louis.  
*The Value and Aim of Sketching*  
Writings, lectures, and interviews, 1931
Achieving tonal variation

On a sheet of paper from your drawing pad create six rectangular boxes 2 x 8 in (51 x 203 mm) divided into 1 in (25 mm) increments. Practice a different method of sketching in each box. Start at the left and label the boxes as follows: “stippling,” “shading,” “scribbling,” “crosshatching,” “vertical lines,” and “horizontal lines.”

To achieve tonal consistency, build up a series of layers rather than using hand pressure to vary tone. For example, start with the stippling method. In the top eighth of the vertical box, begin to put a few dots on the paper. Put the same density of dots in the whole box from top to bottom. Repeat this exercise from the top, but this time skip the first eighth. Repeat the exercise again, this time skipping the first two eighths. Continue until you have repeated this eight times. Within the eight divisions of the vertical box you will see the variety of tonal variation it is possible to achieve with the layering technique. The goal is to achieve a smooth gradation from one tonal range to another.

Composition

- The foreground and background areas can provide a transition between the viewer and the object or space in the drawing.
- The white of the page, along with the edges, is just as important as the black of the line being created. Don’t be afraid to leave lots of white on the page. Understand the role of the white on the page; it should have some meaning.
- Understand the relationship between form and space. Consider the effects of light, volume, weight, shadow, edge, and space.
- Consider the size of the image relative to the size of the paper—the size determines the amount of information necessary and feasible.
- Consider the location of the sketch on the page. The finished size of the image to be drawn determines where it is possible to locate the sketch and the page orientation. The overall composition of the page can affect the legibility and power of the drawing. The page orientation, either landscape or portrait, can reinforce the intentions of the sketch (see page 16).

Louis I. Kahn

Louis I. Kahn (Estonian/American b.1901 d. 1974) is one of the best-known architects and teachers of the 20th century. For Kahn, architecture was the resolution of the interaction of materials and light—without light, architecture would not exist. Kahn’s travel sketches depicted not only the architecture he observed, but more importantly the way buildings interacted with light. He was a keen observer, and is known for his insightful and inspirational quotes.

“...The capacity to see comes from persistently analyzing our reactions to what we look at, and their significance as far as we are concerned. The more one looks, the more one will come to see.”

Louis I. Kahn

Capturing space

The travel sketches of Alvaro Siza provide an excellent case study for architectural sketching. The beauty of these sketches is not found in their representational quality, but rather is derived from how clearly they convey mass of buildings and the space in between.

Mass and light

Louis I. Kahn’s travel sketches document ancient Italian architecture like the Campo in Siena. The appreciation of mass, geometry, and light in his travel sketches would later inspire his own architecture.
Sketching media

There are not only a number of different media that help determine the legibility of your intentions, but also a variety of paper types on which to sketch. Both can reinforce the intentions of the drawing and should be considered before starting the sketch. Some papers are better suited to certain media.

Medium choices include graphite, ink, wash, charcoal crayon, Conté crayon, and pastel or colored pencil. Time, location, intention, and audience determine which medium choice to use as well as which technique would be most appropriate. Each medium can provide a variety of effects.

Ink
Ink is a permanent, non-erasable material with a consistent line-weight and thickness. Drawing with it is about commitment. Tonal variation is achieved with variations in pen thickness, overlapping lines, pattern, and density of lines rather than variations of hand pressure. Ink is appropriate for gesture drawing due to the fluidity of the material.

Water-based washes
Water-based washes include watercolor, gouache, and ink wash. Watercolor is a water-based paint that is applied like a wash. It is good for showing transparency, tonal variation, and color, but it is difficult to correct and hard to control the location of the wash, and you cannot overpaint. Watercolors are created from the lightest to darkest value. Gouache is a water-based opaque wash that can be overpainted. Ink wash can be made by diluting ink. You can use bamboo or brushes and can create both line and value.

Graphite
Graphite is a flexible material. It makes readily controled marks and is easy to erase. Soft pencils are typically used for sketching, as they have the flexibility to create a number of different marks on the page based on hand pressure and the angle of the lead. With a soft pencil, it is easy to create an illusion of depth on a two-dimensional surface. With the pressure on graphite you have more opportunities for creating different types of marks on the page including shading, cross-hatching, linework, and tones. If not protected with spray fix, graphite will fade over time.

Conté crayon
Conté crayon is a square-profiled drawing stick made of compressed chalk. It is similar to charcoal—often harder—but you can still achieve a soft line. Conté crayons are ideal for creating drawings on rough paper. They offer a variety of line types from the thin line to the thick line to the tone achieved by using the flat of the stick. Different from the charcoal stick, you cannot smudge with Conté crayon.
Making marks

- Map out a few light lines that indicate the general structure of the object or space; start with the general and proceed to the specific. Use guidelines to establish relationships between elements.
- Think about the location of the first marks—understand the limits of the page. Where you set your first marks will determine size and scale of the image, so design the sketch on the page.
- Pay close attention to proportion and scale of elements.
- Use a pencil or your index finger to create alignments of objects in the view (setting up vertical or horizontal relationships). Use construction lines to help define relationships between parts of the object.

- Don’t be afraid to put the first mark on the page.
- Develop hierarchy in the sketch.
- Build up detail.
- While sketching, never apologize for any line that you make on the page. Do not erase. Redraw over any part of a sketch that seems incorrect; this is part of the process of learning to sketch. Start light and build up.
- There is an editing process that occurs when transferring what you see or invent onto paper. This allows you simultaneously to process a specific intention for the drawing while making decisions about what to include and what to leave out.
- Sketching is not only about developing your style—your voice, if you will—but developing the understanding of when and which media and papers to use to convey your ideas best. Your drawing medium and type should reflect the nature of your design and the architectural intentions.

Transferring data
To establish accurate proportions, scale, and distance, use a pencil (or other straight device such as your finger) to transfer approximate dimensions and angles onto the paper.

Pastel crayons
Pastel crayons are created from powdered pigment and adhere to rough paper easily. They are similar to charcoal sticks, but come in a variety of colors. They provide similar qualities to the charcoal and Conté crayon, but with a focus on color.

Charcoal
Charcoal is a workable material that has the flexibility to create various types of marks and tonal values. It is ideal for depicting the dramatic effects of light on a surface, and providing textural qualities of space, light, and materials. The “messy” quality of charcoal allows an artistic freedom to describe space—it liberates any fear of drawing incorrectly. As in the drawing by Turner Brooks of the Eugene O’Neill Theater in Waterford, Connecticut (above), the strength of the medium derives from the high contrasts in light and shadow: even quick sketches take on a dramatic effect when rendered in charcoal. Vine charcoal is good for quick gesture drawing, while compressed charcoal, with different qualities based on different thicknesses, is good for large tonal drawings. With charcoal, always start light and work into the darks.
Papers and pads

**Newsprint**
Newsprint is a thin, inexpensive paper with a natural gray tone, ideal for practice sketches. It does not have the same durability as other types of drawing papers. It tears easily and it is therefore harder to develop or work a drawing on this type of paper. It has no tooth.

**100# all-purpose acid-free paper**
Acid-free paper such as Strathmore is a thicker white paper ideal for sketching with charcoal, ink, and pencil. It is more durable than newsprint.

**Arches**
Arches paper is a French watercolor paper better for line and tonal drawings. It comes in a variety of weights ranging from 90 lb to 140 lb. “Hot press” is a smooth paper with less tooth, while “cold press” is rougher and more textural. The paper is archival quality and very sturdy. The rougher tooth holds the marks of Conté crayon, charcoal, and pastel very well, while the smooth tooth is ideal for graphite.

**Mylar**
Mylar is a clear film that takes ink well. It is relatively easy to erase ink on mylar using an electric eraser and a little bit of moisture.

**Vellum**
Vellum is a translucent material that is ideal for working with graphite. The paper comes in a variety of weights. Linework, rendering, and shade/shadow tonal work can be created on vellum. It is ideal for layering drawings on top of one another due to its translucent quality.

**Craft paper**
Craft paper is a smooth brown paper. It works well with pastels and charcoal and it provides an excellent non-white surface on which to draw. White and colored pencils can be used with ease on this surface.

**Trace**
Trace is a transparent material used for overlay sketches.

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**Assignment: 7**

**Still-life sketching**
Create a still life using a combination of chairs, stools, and other small-scale objects. Place them in a manner that is atypical to their normal orientation; this helps to relieve familiarity with the object. This assignment asks you to challenge your preconceived notions of recognizable things, and will help you to push yourself beyond what you are most familiar with. You are asked to see the object in different ways, as a solid, as a space definer, as a surface, and as a void. One goal for the project is to push your own observational skills by re-examining something that is familiar. You are also asked to think about the drawing as a way to tell the story of the object. It is a method of intentional description of a given object.

You should experiment with media and techniques to find those that are interesting and expressive for you. You should consider issues of layout and composition (how you fill the page with the object). This assignment should give you drawing confidence as you become familiar with your object as well as an opportunity for you to challenge yourself with new approaches.

**Brief**
Construct a series of six timed sketches using a variety of the techniques and media described in this chapter.

- Two rounds of 30-second blind drawing
- 30-second sketch
- 1-minute sketch
- 5-minute sketch
- 10-minute sketch

Redraw the same composition using another medium.
1 Start with a 30-second blind drawing to attune your hand and eye control. Work to get the whole object on the page within that timeframe. Detail is not important in this drawing. Concentrate on proportion and the relative scales of each object to itself and to the other objects.

2 Begin a new drawing by sketching the spaces between objects as opposed to objects themselves. This will enable you to work on proportion and scale without being distracted by foreshortened elements.

3 Use guidelines to verify the location of elements in the sketch. For each timed drawing, your goal is to get a complete image on the page. Your drawing techniques will change slightly as the time increases.

4 Return to areas of the drawing to provide additional details, tone, or corrections to the alignment, proportion, or scale of the elements. Build up the drawing. Do not develop one area too much prematurely.

Steven Holl

Steven Holl (American b.1947) founded a critical journal in 1978 entitled “Pamphlet Architecture.” These small booklets became avenues for architects to disseminate theoretical architectural treaties. Holl balances theoretical work with built work, exploring and testing ideas pertaining to the links between science, technology, and art. He has designed important cultural buildings throughout Europe and North America. Steven Holl’s work can be characterized with his insightful investigations of how light enters and interacts with a building. He studies these relationships through watercolor sketches.

▶ Investigative watercolor sketch
This Steven Holl sketch of the Chapel of St. Ignatius in Seattle captures his concept of the seven vessels of light entering and energizing the building. The characteristics of watercolors, transparency, overlapping, and color perfectly allow him to study the interplay of light and form.
Sketching the line

Lines are manmade creations that provide information about changes in form, depth, material, or brightness.

One technique that is extremely helpful in improving sketching is the mastering of the straight line. The language of the line is an essential component to understanding drawing. The line is a continuous mark on a surface that is defined mostly by its length relative to its own width or thickness. The thickness of the line can vary with different media.

The line, if properly drawn, can delineate sharp edges or soft contours. Through the pressure, thickness, and angle of application, it can suggest different textures, shapes, and forms.

You should come to understand your own natural hand pressure. This affects the marks made on the page by graphite. It is important that you know this so that you can determine which leads, hard or soft, are best suited for you. If you have a heavy hand you will want to work more with the harder leads, while if you have a light touch on the page you will want to work with softer leads so that your lines appear appropriately darker.

“Line does not exist in nature. Line is an invention of man; so, in fact, is all of drawing... There must have been a reason for the invention of the line. Yes, it is a guide for those who would venture into the formlessness that surrounds us on every side; a guide that leads us to the recognition of form and dimension and inner meaning.”

George Grosz, painter, 1893–1959

Pen and digital line weights

Pen and digital line weights do not vary in the same way as graphite. Variation of line types is achieved through pen thicknesses rather than hand pressure. Pens have a consistent stainless steel tip and ink flow and therefore maintain their line consistency and type throughout the length of the line, as well as throughout the entire drawing.

The pen weight range includes: 0.13 mm, 0.18 mm, 0.25 mm, 0.30 mm, 0.35 mm, 0.50 mm, 0.70 mm, 1.0 mm, 1.4 mm, and 2.0 mm. The range of lines available in digital output may vary, but typically includes 0.05 mm–2.1 mm. The number of pens available in both digital output and as individual drawing instruments offers a large variety of line weights with which to draw. As with the lead range, it is not necessary to maintain all the pen sizes. A good range includes small, medium, and large tips: 0.13 mm, 0.25 mm, and 0.50 mm. You should have the variety of pens necessary to convey depth properly in a drawing.

Graphite line weights

Graphite line weights include the spectrum of marks made by both hard and soft leads. There is a range of graphite weights associated with hard-lined drawing (drawing with your parallel rule and drafting board), freehand drawing, and sketching. Leads range from a soft 6B to a hard 9H. The harder the lead, the lighter, crisper, and thinner the line will be. It is important that you find your own appropriate range of drawing weights as each lead has a variety of associated marks depending on your own hand pressure. For example, an HB lead (a middle-range lead weight) can actually provide a number of different line marks, ranging from light to medium to dark, based on how much pressure is applied. Variation in graphite is made through pressure and lead choice.

A range of digital line weights
Line-drawing exercises

Line drawing exercises allow you to gauge your own hand pressure and to achieve straight line accuracy. It is important to develop the proper hand-eye coordination to draw. You will need to move your entire arm while making long straight lines. This provides you with stability as you move the lead holder across the page. Twist the lead holder between your fingers as you move it across the page to maintain a consistent point on the lead.

1. Place at least 10 dots randomly on a page in your drawing pad. Use the entire space to distribute the dots. Do not align more than three. Now draw freehand lines connecting one point to each of the others. Look ahead to where the line will end and try to make each line straight and of a consistent line weight.

2. Connect every dot to every other dot. Do not use a ruler or straight edge for these exercises. Use an HB sketching pencil. Sharpen your pencil often. Do not lift the pencil up or pause in the middle of a line. Use your entire arm to draw—not just your wrist—from your shoulder to your fingers. Remember to roll your pencil to help keep the point consistent.

3. On another sheet, draw a series of horizontal lines, keeping the lines parallel and around ½ in (12 mm) apart. Draw each line continuously from one side of the paper to the other. Vary your hand pressure after every five to eight lines.

4. Now cross vertical lines over the horizontal ones to create a grid. Try a variety of lead hardnesses, and both lead holder and pencils, to experiment with your own hand pressure. Compare the lines created with the lead holder and a sketching pencil. In addition, use an HB lead in the lead holder for five lines, then press harder for five lines, then lighter for another five lines. Next try the HB pencil using the same methodology of five lines regular, five lines harder, and five lines lighter.

5. Carefully draw horizontal lines across the width of another page. Maintain a 1-in (25-mm) distance between the lines at the top quarter of the page. For the next quarter, keep a consistent ¼-in (12-mm) spacing between the lines, followed by a ⅛-in (6-mm) spacing for the next quarter. Finally, the bottom quarter of the page should be filled with lines ⅛ in (3 mm) apart. Keep the lines straight and parallel. Work on line control and consistency.

6. Repeat the same exercise drawing vertical lines.
Selecting an object

Architects draw for a number of reasons—sometimes just to practice. There are many opportunities to practice sketching from the built environment.

Finding a small object to draw can be quite easy. There are many objects in your everyday environment that are ideal for sketching. It is good to practice sketching the same item over and over again, as this will help you evaluate and practice with a variety of media. Vary the lighting and the viewpoints of the same object to provide further areas of study.

Deciding what to sketch can sometimes be difficult—you can pick from a variety of elements based on size and opportunity. You can select an object small enough to hold in your hand or something as large as a city. You can also sketch buildings or spaces—but to be able to practice, choose an object that is convenient to draw. When practicing, pick an object that has lots of physical and visual variation that allows you to draw it with a variety of media.

Object
Pick an object that can sustain your interest for a long time. The object you choose should be portable. It would be best if it moves in some fashion; it could be a tool. You will be using the tool and the sketch as a way to discover your own particular drawing interests and passions. Tool examples that have movable parts include pliers, scissors, leatherman/multitools, stapler, corkscrew, can opener, nail clippers, architectural compass, and corkscrew.

Additional qualities to look for in choosing an object include:

- Multi-sidedness
- Complex lines
- Geometric variation
- Reflectivity
- Transparency
- Irregular surfaces
- Shadows it casts on itself and on surfaces below and behind.

Building
Select a building that has a regular geometry, repetitive elements, and non-curved forms. It would be useful to sketch both the interior and exterior conditions of a building, so access is important. Selecting a building like a public library is a good place to start.

Space
Find a space to sketch that is open and well-defined. That is, the buildings that surround the space clearly define the shape of the space. This could be a large room inside, a large space outside like a plaza or courtyard, or an alleyway between two buildings.

Tonal sketches
Rendered graphite sketches can highlight details of an object. The curvature of metal, its reflective quality, and deep shadows can all be captured with graphite.

Read this!
- Chaet, Bernard
  *The Art of Drawing*
  Wadsworth Publishing, 1983
- Cooper, Douglas and Mall, Raymond
  *Drawing and Perceiving*
  Van Nostrand Reinhold, 1992
- Crowe, Norman and Laseau, Paul
  *Visual Notes for Architects and Designers*
  John Wiley & Sons, 1986
- Edwards, Betty
  *Drawing on the Right Side of the Brain*
  Tarcher, 1979
- Yee, Rendow
  *Architectural Drawing* (Chapter 3)
  John Wiley & Sons, 2007
Quick studies
Complete a series of experimental sketches. Utilize different drawing types and techniques to represent a variety of scales, views, compositions, and contexts. Careful “seeing” is required. Pay particular attention to the proportion of the object and the scale of the elements in relation to one another.

**Assignment: 9**

**Sketching small objects**

**Shadow and form**
Complete a series of sketches that convey the shape and form of the object. Try a technique of sketching everything but the tool itself. In another sketch use shadows to ground the tool to a surface. Transparency sketches will show the interior form and structure of the tool.
Figure drawing encourages you to practice drawing what you see rather than what you think you see. The figure is very familiar to you but, by looking, you see the figure accurately. You see the spaces between parts as opposed to the parts themselves. You see the contour of the form as opposed to the body part that makes the form. With the figure you can concentrate on drawing the contour of the form itself, the positive space, the shape that the figure makes, or even the negative space. When mistakes of proportion or form are made, you will immediately notice it. The process of drawing trains you to see the figure and not just draw what you think you see.

When drawing the figure for the first time it is important to get the whole figure on the paper. Draw to fill the page—that is, don’t draw too small on the paper. These drawings should be considered working drawings that can be fixed by redrawing over existing lines. Realize that you are intellectually and physically working out what you see.

Look for the weight of the figure. Let stronger lines emphasize this weight. There is value in the line that can develop the weight of the figure. The shadows cast by the figure provide opportunities to highlight the curvature of the body and the space between the body and the surface it is on. Study how the light interacts with the body and vice versa.
Find examples of drawings, models and sketches from a 19th century architect from the following list: Henry Hobson Richardson, Frederick Schinkel, Louis Sullivan, Frank Furness, Henri Labrouste, Sir John Soane, and Charles Rennie Mackintosh.

For each drawing, examine the technique of the drawing, medium of the drawing, and size of the drawing (if listed). For the models, note the material, size of the base, and level of abstraction. Store the sketches inside your image folder.

This exercise will allow you to tie a specific time period with the typical representations and techniques associated with the era. As you continue this study, examine what changes occur over time, and what stays the same.

Elevations of the Glasgow School of Art by Charles Rennie Mackintosh.

Paper options
Drawing on colored papers allows you to try a variety of different sketching techniques. White pencil can be used on dark paper. The color of the paper is incorporated into the figure sketch.

Generally the feet and the head are the most difficult elements of the figure to appropriately scale. Practice drawing them so that your future drawings capture the appropriate scale and proportion.