

We spend most of our time "looking" and not "seeing." This is not a criticism—filtering out information is vital to our ability to function. Our brains have an enormous capacity to quickly look, determine the most important focus, and then ignore everything else.

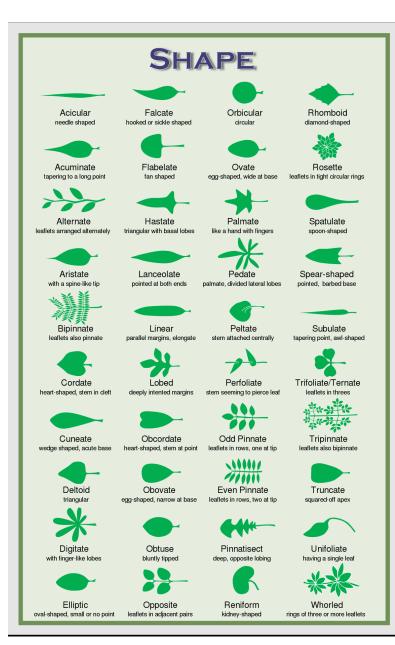
The very act of slowing down, drawing, and writing changes how we look at the world around us. Recording our observations forces us to **see**, instead of look.

Even creating a basic line drawing makes us pay attention to details we would not otherwise notice. Drawing is a form of thinking.

This workshop is a quick overview about keeping a journal, focused mainly on the plants we find around us—in the wild, in our gardens, in our homes, growing in sidewalk cracks, and in our refrigerators. These are a few notes that may be a helpful reference during the workshop and for later reference.

Enjoy!





## Chart of leaf morphology characteristics

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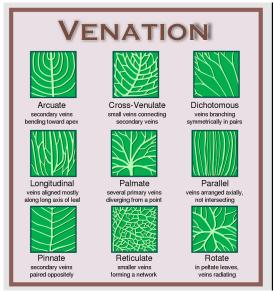
Author:

derivative work: McSush (talk) Leaf\_morphology\_no\_title.png

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This was a featured picture on the English language Wikipedia (Featured pictures) and was considered one of the finest images.





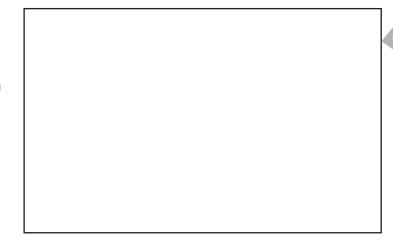


## DRAWING LEAVES IN PERSPECTIVE (PAGE FOR RIGHT-HANDERS)

The secret to drawing leaves in perspective lies in finding the midrib—the center vein of the leaf. One of the most common mistakes made when drawing leaves in perspective is missing how the midrib lines up as the leaf turns in three dimensional space. Fortunately, there's an easy remedy. Feel free to trace over the illustrations below or copy into the empty practice box or on a separate piece of paper:



Draw the midrib first.
The midrib is the central vein in the middle of the leaf.



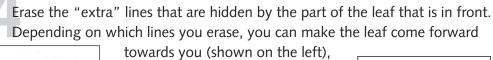




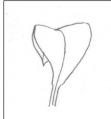
Draw the outside right edge and then the outside left edge. Pretend your leaf is transparent. Draw a continuous line for the right and left edges, even where the line is hidden from your view.



Draw the top surface edge from the outside edge to the curve on the midrib. Always be sure to draw the top surface as a curve, not straight across. Organic forms usually do not have ruler-straight lines.







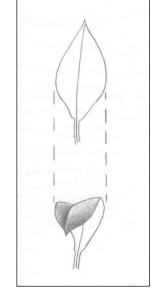
towards you (shown on the left or go back (shown on the right).

This is the same drawing as shown in step 3 above, with different lines erased.



The measurements of your "folded" leaf are the same as for a flat leaf: the width at the widest point of the leaf will be the same as a flat leaf, and the length of each of the "folded" portions of the leaf added together will equal the length of a flat leaf.

Deborah Shaw
Drawing a leaf in perspective.

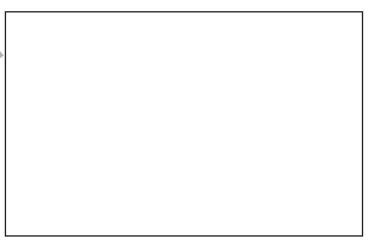






## DRAWING LEAVES IN PERSPECTIVE (PAGE FOR LEFT-HANDERS)

The secret to drawing leaves in perspective lies in finding the midrib—the center vein of the leaf. One of the most common mistakes made when drawing leaves in perspective is missing how the midrib lines up as the leaf turns in three dimensional space. Fortunately, there's an easy remedy. Feel free to trace over the illustrations below or copy into the empty practice box or on a separate piece of paper:



Draw the midrib first.
The midrib is the central vein in the middle of the leaf.

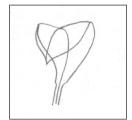


Draw the outside right edge and then the outside left edge. Pretend your leaf is transparent. Draw a continuous line for the right and left edges, even where the line is hidden from your view.

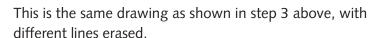




Draw the top surface edge from the outside edge to the curve on the midrib. Always be sure to draw the top surface as a curve, not straight across. Organic forms usually do not have ruler-straight lines.

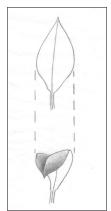


Erase the "extra" lines that are hidden by the part of the leaf that is in front. Depending on which lines you erase, you can make the leaf come forward towards you (shown on the left), or go back (shown on the right).









Shade if you want. Add veins or textures.

The measurements of your "folded" leaf are the same as for a flat leaf: the width at the widest point of the leaf will be the same as a flat leaf, and the length of each of the "folded" portions of the leaf added together will equal the length of a flat leaf.

Deborah Shaw Drawing a leaf in perspective.



#### MAKE A RUBBING TO CAPTURE A PATTERN

A quick, easy way to record a leaf edge and complicated vein pattern is to do a leaf rubbing. Botanical artists create leaf rubbings in the field for later reference. In an herbarium, lab, or studio, leaves can be scanned or placed on a copy machine to record the same information. Many leaves will last for further observation if you seal them under clear packing tape in your sketchbook.

Please keep good ecological practices in mind before picking any plant parts out of gardens, parks or wild areas. If a plant is endangered, would suffer from losing its parts, or if you do not have permission, please do not take pieces for rubbings or reference.

There are many subjects other than leaves that lend themselves to rubbings to record their surface and patterns. These include (but are certainly not limited to): petals, tree bark, rocks, shells, ceramic artifacts, fossils and gravestones. Make sure the surface can stand up to a rubbing without damage FIRST.

#### Materials:

- Lightweight drawing paper or tracing paper;
- Graphite pencil (2B or softer), or;
- Charcoal or crayon.



Choose your plant leaves. Look for leaves that are typical of the plant; avoid leaves that are deformed or partially eaten (unless that is what is of interest).

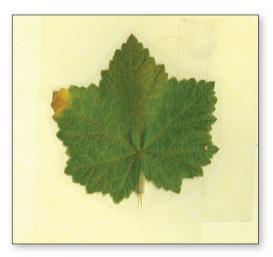
Observe the leaf characteristics, before beginning the rubbing. Write down a description of what you see, using words and terminology that will make sense to you later. Describe:

- The color, shape and size of the leaf
- The surface (Is it sticky, hairy, shiny, dull, or waxy?)
- The back of the leaf as compared to the front (Is the color different? Anything else?)
- The veins (Are they more prominent on the front or back? How do they branch? Do they go all the way out to the margin of the leaf?)

Create the rubbing. Place the leaf under your paper. Hold the leaf carefully and steady under the paper, or tape it. Using the side of a soft graphite pencil, charcoal or crayon, color over the leaf with even, consistent strokes until the edges and venation show. You may need to use a thin paper to get good results.

If the leaf is very different from front to back, do a rubbing of both sides.

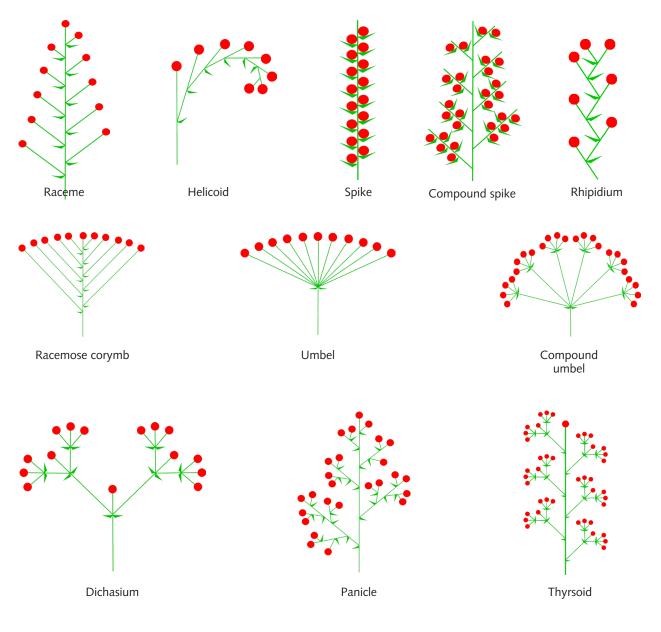
If you create rubbings on a separate sheet of paper, or tracing paper, tape it into your journal.

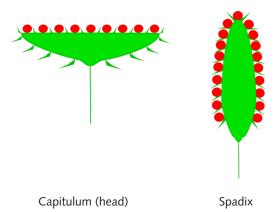


Deborah Shaw, leaf rubbing (left) and leaf sealed under clear plastic in sketchbook (right).



#### A FEW TYPES OF INFLORESCENCES





Inflorescences Spadix Kwiatostan Kolba.svg, Inflorescences Helicoid Kwiatostan Sierpik.svg, Inflorescences Raceme Kwiatostan Grono.svg, Inflorescences Head Kwiatostan Koszyczek.svg, Inflorescences Panicle Kwiatostan Wiecha.svg, Inflorescences Spike Kwiatostan Kłos.svg, Inflorescences Umbel Kwiatostan Baldachzłoony.svg, Inflorescences Umbel Kwiatostan Baldach.svg, Inflorescences Corymb Kwiatostan BaldachGrono.svg, Inflorescences Kwiatostan Wachlarzyk.svg, Inflorescences Muktispike Kwiatostan KłosZłoony.svg, Inflorescences multiCyme Kwiatostan Wierzchotka.svg, Wickel (inflorescence).PNG, Dichasialer zymus (inflorescence).PNG Date: May, 2006, http://commons.wikimedia.org/wiki/File:Inflorescences\_Spadix\_Kwiatostan\_Kolba.svg#

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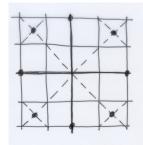


# PERSPECTIVE AND SIMPLIFYING FLOWERS TO THEIR COMPONENT SHAPES

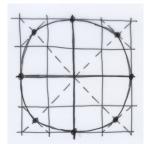
"Perspective is the rein and rudder of painting." — Leonardo da Vinci

## Putting circles into perspective

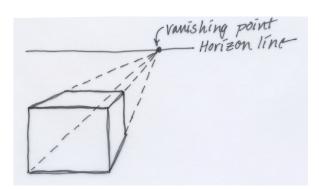
For many flowers, drawing in perspective involves figuring out how to make a circle lie back into a plane. A circle in perspective becomes an ellipse. It is easier to understand ellipses conceptually by first putting a square into perspective. Putting a circle within a square makes it easier to see what happens to a circle in perspective.



1. Draw a square. Divide it in half each way. Then divide each quarter in half again. Place eight points on the intersections as shown.

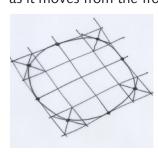


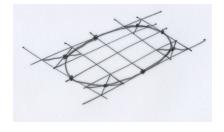
- 2. Connect the dots with a circle.
- 3. Now draw a square in perspective. There are mathematical methods for doing this, but since this is a quick exercise, simply draw a cube, and then choose one side of the cube to use. Any side will work—the



examples at the bottom of this page use the top from various viewpoints. To draw a cube in perspective: pick a vanishing point. On your cube, all horizontal lines that are parallel with the horizon line will still be parallel with the horizon line. All vertical lines will go straight up and down. All lines that are perpendicular to the horizon line will go back to your vanishing point. This is one point perspective.

4. Once you have a square in perspective, draw the same divisions and dots as in your first square. Draw a circle through the dots and you will have the correct ellipse. Place your stem at the very center, and begin placing petals around the circle. The grid of will help determine the size and shape of each petal as it moves from the front of the flower to the back.







Circles in Perspective, Deborah Shaw



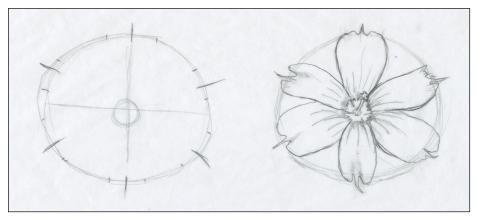


#### **DRAWING FLOWERS**

Flowers become easier to draw if you simplify them into their component geometrical shapes.

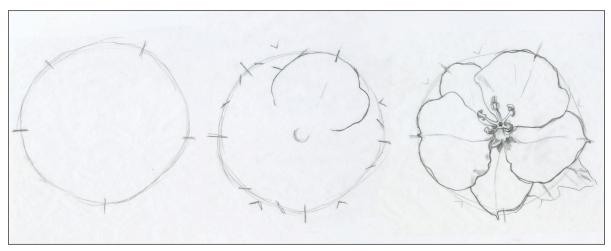
#### Flowers whose petal edges describe a circle are fairly straightforward:

- 1. Draw a circle the diameter of the outside edges of the petals.
- 2. Make dots or dashed lines where the middle of each of the petals or the tips touch the circle. You may also want to mark where the sides of the petals touch the circle, depending on the shape of the petals.
- 3. Draw the center of the flower to size.
- 4. Draw in each of the petals.



Sysyrinchium bellum, Blue-eyed Grass (California native). Pencil sketch, Deborah Shaw, © 2014.

For flowers with very wide, overlapping petals, make additional marks on your circle that will help you as you draw:



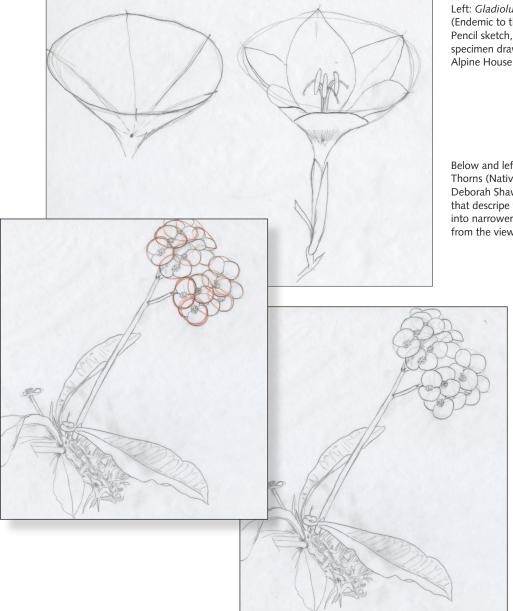
Fremontodendron californicum, California Flannelbush (California native). Quick initial pencil sketch, Deborah Shaw, © 2014. The stamens and pistil in this flower look like an alien satellite antenna, and the petals have a strong midrib that forms a ridge on the back of each petal. A complicated flower that required a lot more drawings to understand all the parts!





#### A flower with a more complicated shape:

Most flowers are not a flat, circular shape. Many have a "cone" shape, where the outside edges of the petals still form an ellipse in perspective, but the center of the flower drops below the edges of the ellipse. Depending on how deep the cone, and the angle of the flower, you may see more or less of the underside of the petals in front.



Left: Gladiolus carmineus, Cliff gladiolus (Endemic to the Western Cape of South Africa). Pencil sketch, Deborah Shaw, © 2014. This specimen drawn from flowers grown in the Alpine House at Kew Gardens, London.

Below and left: *Euphorbia milii*, Crown of Thorns (Native to Madagascar). Pencil sketch, Deborah Shaw, © 2014. Note how the ellipses that descripe the shape of the flowers collapse into narrower ellipses as the flowers turn away from the viewer.

#### Clusters of flowers:

Flowers that are grouped in inflorescences can be simplified to their component parts and then be placed in their proper perspective. Remember that the flower facing directly towards you will appear to be a flat circle, while the flowers that begin to turn away from you will have elliptical shapes as they move back into perspective.

Start with the flowers closest to you. Use bolder, stronger lines for the flowers that are in front, and add more detail. This will start to add volume and form to your flower cluster, and make those flowers in front come forward towards the viewer.

## Consider drawing only half:

If a flower, insect or leaf is bilaterally symmetrical, it is perfectly acceptable to draw in complicated detail on only half of the drawing in your journal. The other half can remain an outline that describes the shape.

