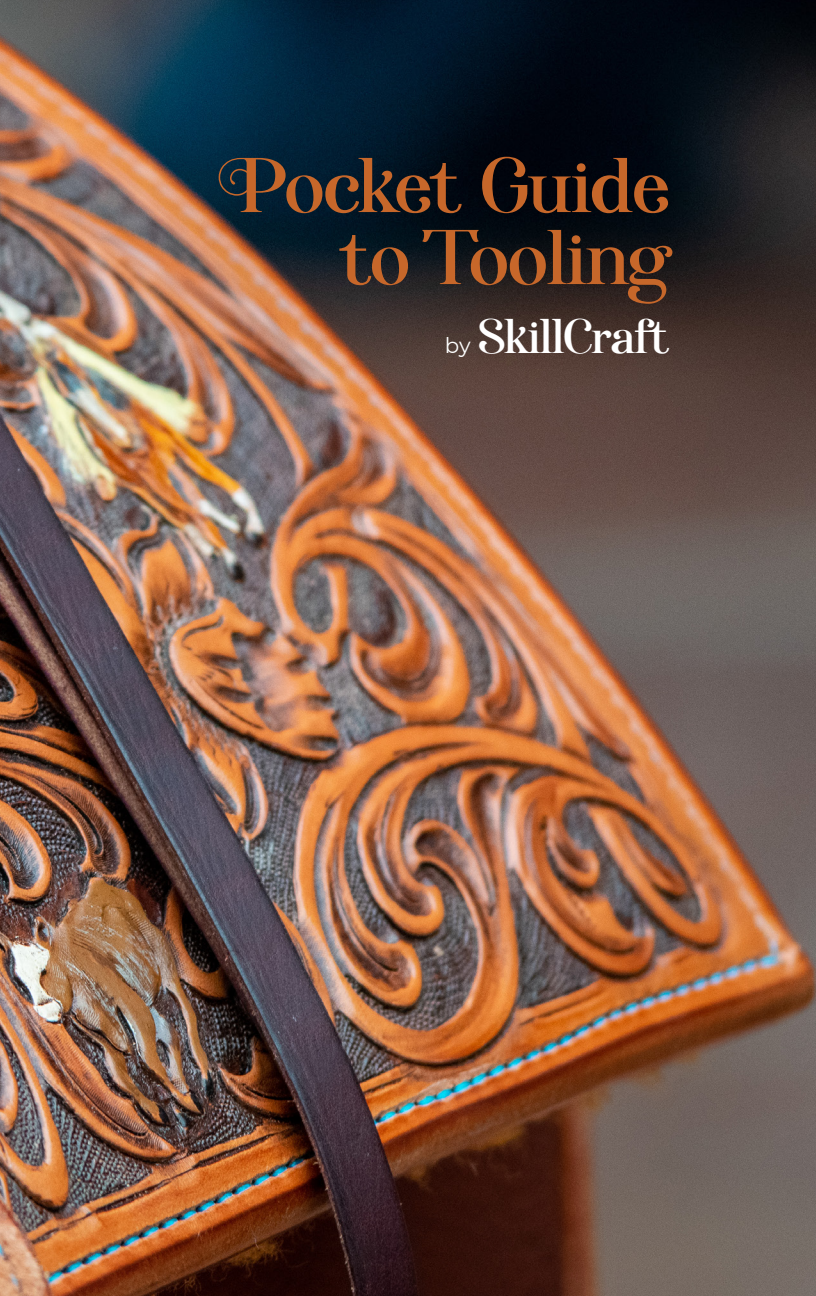

Pocket Guide to Tooling

by SkillCraft

To All The New Leather Workers,

Keep at it.

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Leather Terminology

Aniline Dyed:
Leather that is dyed all the way through with a transparent dye. Because the finish is transparent and shows the natural markings of the leather, only the best quality hides can be used.

Armor Leather:
Heavy vegetable-tanned leather that is used for shoe soles and protective armor by historical reenactors.

Bark-Tanned:
Leather that is tanned by vegetable tannins extracted from the bark of trees. This is also known as vegetable-tanned leather.

Chrome-Free:
Also referred to as aldehyde-tanned leather, this is the leather that most tanners refer to as wet-white leather due to its pale cream or white color. Chrome-free leather is used in infant's shoes and automobiles.

Chrome-Tanned:
This process uses soluble chromium sulfate to tan leather. This process is primarily used for garments, footwear, and upholstery.

Crust:
Leather that has been tanned, dyed, and dried, but has not been finished.

Distressed:
Leather that is aniline dyed with one color over another (usually darker over lighter) to create rich highlights and an artificially aged appearance. This finishing process is intended to emphasize the characteristics of the hide, such as scars, scratches, and wrinkles. Also referred to as antiqued leather.

Drum Dyed:
The process of coloring leather by tumbling it in a rotating drum immersed in dye to allow maximum dye penetration.

Embossed Leather:
Leather that has been stamped with a design or artificial texture under very high pressure.

Flesh Side:
The underside of the animal's hide. When looking at a piece of veg-tanned tooling leather, this is the rough side.

Full Grain:
Leather that has not been altered beyond hair removal. It is the most genuine of leathers, retaining all of the hide's best, strongest, and most durable layer.

Grain Side:
This is the hide's surface that had the hair of the animal. The grain side is used for leather carving and stamping.

Hair-Cell Grain:
Noticeable appearance of where the hair pores were on the leather.

Kidskin:
Soft lather made from the skin of a young goat.

Latigo:
Cowhide leather tanned for outdoor use. This is utilized for cinches, ties, and other saddlery work and for army accoutrements.

Oil-Tanned:
Leather that is tanned using oils to create a very soft, pliable finish.

Patina:
The aura or luster that developed in leather as it ages with use.

Pebble-Grain:
A cosmetic characteristic resembling small pebbles on the leather's top side.

Printed Leather:
Leather that has been stamped with a design or artificial texture under very high pressure.

Pull-Up Finish:
Describes the behavior of leather that has been treated with oils, waxes, and dyes in such a way that when pulled or stretched, the finish becomes lighter in those areas. Considered a mark of high quality.

Rawhide:
Hides that have only been de-haired and cured but not tanned.

Semi-Aniline:
Aniline leather that has a matching pigment layer added to even out the color and add protection.

Shearling:
A sheepskin or lambskin that has gone through a limited shearing process to obtain a uniform depth of wool fibers. They can be tanned with either a veg-tan method, normally used for saddles and outdoor gear, or with a chrome method, normally used for garments.

Side:
Leather tanned from one half or side of a full hide.

Skirting:
Sides from cattle that are left in their heaviest form for use with saddle making and reenactment armor.

Splits:
Leather made from the lower (inner or flesh side) layer of a hide that have been split away from the upper or grain layers. Split leather is not as durable as full-grain leather and is normally used in making suede. This suede is often used in making chaps.

Suede:
Split leather that has been buffed and brushed to create a more attractive surface.

Temper:
A characteristic of leathers defined by pliability/softness.

Tooling Calf:
This is normally a very lightweight veg-tanned leather with a very clean appearance.

Top Grain:
Usually refers to a process of sanding away the natural grain from a leather's top surface. Imitation grain gets stamped into the leather for a more uniform look.

Vegetable Tanned:
Also referred to as veg-tanned; a method used to tan hides that utilizes organic materials, such as tree bark, instead of the traditional chemicals. This is the process employed in the tanning of tooling leather hides.

Veg Splits:
Veg-tanned leather that has been split with both sides having a fleshy feel. Cannot be tooled.

Waxy Hand:
An upholstery or handbag leather that has a waxy feel and look.

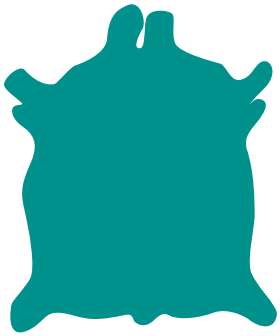
Weight:
A term that describes the thickness of leather in ounces. One ounce equals 1/64th (0.4mm) of an inch in thickness.


Leather
Parts &
Weights

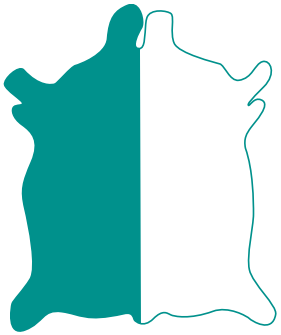
Leather Hide Parts

When you are looking to buy your leather, you will find that there are different parts/sizes available. Your budget and how much leather you need for your project will likely be the deciding factor for the part you choose to order. The parts refer to where in the hide they come from; the parts that will be available from most suppliers can be found on the next few pages.

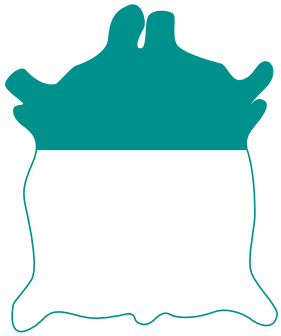
Whole Hide



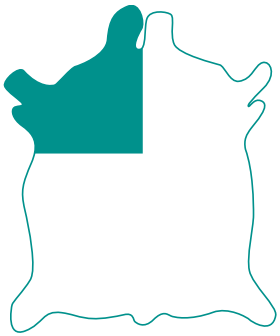
Side



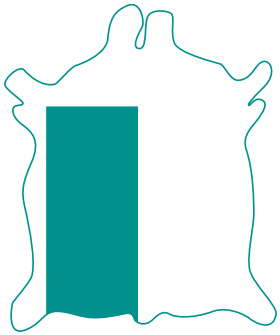
Double Shoulder



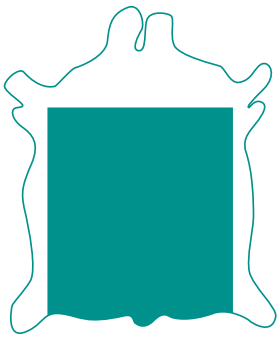
Single Shoulder



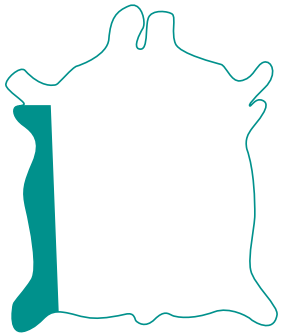
Bend



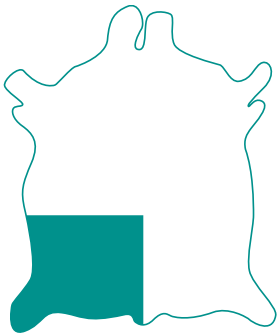
Double Bend



Belly



Single Butt



Leather Weights

What it is you want to make will determine the thickness, or weight, of the leather you should choose. Some common projects and their respective leather weights are below.

- **2-3oz:** Linings, embossing, and molding
- **3-4oz:** Light billfold backs, clutches, and embossing
- **4-5oz:** Billfold backs, clutches, and masks
- **5-6oz:** Small cases and notebook covers
- **6-7oz:** Carved/tooled handbags and camera cases
- **7-8oz:** Narrow belts, small holsters, and knife sheaths
- **8-9oz:** Belts, holsters, and saddle bags
- **9-10oz:** Belts over 1.5” wide and heavier holsters

Choosing Your Leather

Choosing your leather comes down to a few things: what you're making and whether or not you plan to tool it. Since you're reading this book, we will assume you're planning to tool it. No matter what your project is, tooling can only be done on veg-tanned leather. This is because the veg-tanning process uses only organic materials and is a slower process, which makes the leather stronger and more moldable.

Knowing what you now know from this chapter, you are ready to choose the correct weight and hide part for your next project).


Tools

Tools Needed for Tooling

You have your leather, now let's talk tools. For basic tooling, you will need a Swivel Knife, Stylus to trace your pattern, Mallet or Maul, and Stamps. There are a plethora of stamps you can find from suppliers like Tandy Leather. Below you will see some examples of these tools, but feel free to check out your suppliers and get creative.

Swivel Knife

Mallet/Maul

Stylus

You can get an actual stylus meant for leather, or use a mechanical pencil without the graphite out.

Stamps:

You can get general or specialized stamps from various suppliers. Each has a different use, and some uses are more obvious than others. We will go deeper into the uses of general stamps in the next section.

Camouflage

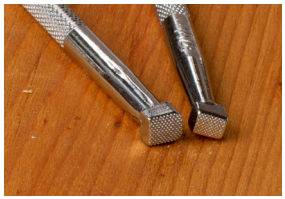
Pear Shaders

Background tools

Seeders

Veiners

Bevellers (Undercut, Lined, Smooth, Checked, Coarse)



The pictured bevellers are checked.

Specialty Stamps (alphabet stamps, custom stamps, basket weave, etc.)


How to
Tool

Your first tooling project can be scary, so let's walk through it together. This chapter will offer you a step by step tutorial of a basic flower, which can be used in other, more elaborate patterns once you feel confident.

Step 1

Choose your leather; veg tanned leather is the only type of leather we can tool/carve. I suggest using a scrap piece for practicing. You'll notice there is a rough side, or the flesh side (shown on the right), and a smooth side, known as the grain side (shown on the left).

Step 2

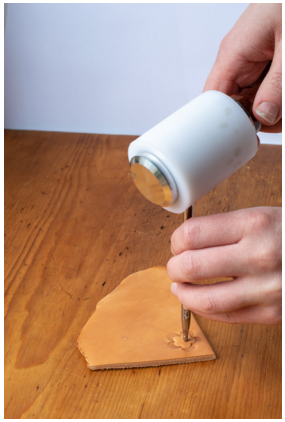
Moisten your leather using a sponge. Moistening the leather softens it, making it easier to cut and stamp. Apply water until it significantly darkens, then give it a moment to begin to return to the original color. You will need to continually wet down your leather as you go.

Step 3

Use your camouflage tool to stamp 5 flower petals. Hold the stamper straight up and hit the top with the mallet. It will take a few tries to figure out how hard you need to hit it, it may take a few solid hits to get a good impression. Having a moist, soft surface will make it easier to get a solid, deep impression.

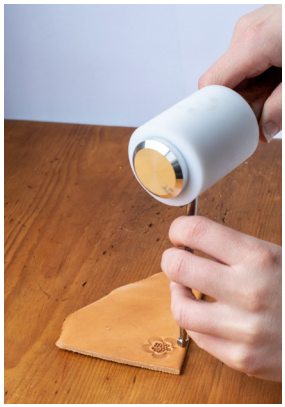
Step 4

Use your seeder to fill in the inner part of the flower.



Step 5

Outline the petals of your flowers with a beveller. You will notice that bevellers are on an angle, the long side should face the petals and the short side should face out. Hit the stamper with the mallet to make your first impression. Now "walk" the stamper around the edge by hovering just above the leather and sliding your stamper around the outside of the petal as you hit it with the mallet. This will give a nice fade to set off the petals as shown in the photos below.



Step 6

Use your swivel knife to cut the shape of a stem. Be sure to strop your knife before you cut by running the blade on some cardboard (like from a cereal box) with some glue on it. Stropping the blade polishes it and makes it easier to cut. Hold your swivel knife at an angle, tilted away from you and only cut with the corner; this will make cutting the curves easier.

Step 7
Use your beveller again to bevel around your stem, placing the edge of the beveller right into the cut.

Step 8
Cut a leaf shape about halfway down the stem and cut a spine down the center of the leaf.

Step 9
Now pick up your veiner and position just the corner about 90 degrees off the spine of the leaf to stamp in several veins on each side of the spine. Your flower should look something like this:

And you're done! Read on to learn how to finish your project.


Finishing

Finishing

Once you are done tooling everything, you need to apply a finish to your work. Begin by applying a coat of conditioning oil, Neatsfoot oil is a good option, but Olive oil can be used too, and you probably have that in your cupboards. Once that oil has had a chance to soak in, you can move on to paints. If want to add some color, you can use paints specifically made for leather, which can be found from a supplier like Tandy Leather, or you can use acrylic paints.

After your painted areas have dried, you can move on to dye. Depending upon where and how much of your project ou are dyeing, you can use a paintbrush, cloth, or the applicator that comes in some dye bottles to apply it. After your dye has soaked in, use a lacquer over everything. Dab, don't wipe your cloth over your work, wiping can smear or even remove your paint. Let your lacquer dry before moving on.

Now you can add antique finish to the raw areas left on your tooling. Antique finish will darken the stamped and cut areas of your raw leather. It is important to work in small areas at a time to avoid any bleed-through. Inside-out socks work well to wipe excess antique off and allow you to get more out to avoid a blotchy look.

The last step is the apply a protective acrylic finish to seal it all in.

Burnishing

If you have raw edges, you will need to burnish them. You will need: an edging tool, 200 grit and 500 grit sandpaper, a sealing compound (the most common are water, beeswax, or gum tragacanth), and a burnisher (a hand burnisher, a Dremel tool with a burnishing bit, or a burnishing motor with a burnishing bit).

Begin by rounding off your edges with an edging tool. Burnishing pushes down on the leather and rounding the edges off from the beginning gives a cleaner look at the end. Now you're your rough sandpaper (200 grit) and rub the leather in one direction. This will take off some of the bigger fibers and lay the smaller fibers down in the same direction. Take finer grit sandpaper to finish off.

In this book, we will work with beeswax for our sealing compound. Rub your block of beeswax on the edge quickly, you need the friction to heat up the beeswax so that it will melt onto the leather. Now pick up your burnishing

tool of choice; we will be using a hand burnisher. Choose a groove in your burnisher that is close to the same width of your leather and rub along the edge of the leather. Friction will heat up the wax again and smooth everything out. Rub until you get a nice shine. Now take a canvas cloth and rub that along the edge; this will take off any excess compound and will bring it to a high shine. Then you're done!


Patterns

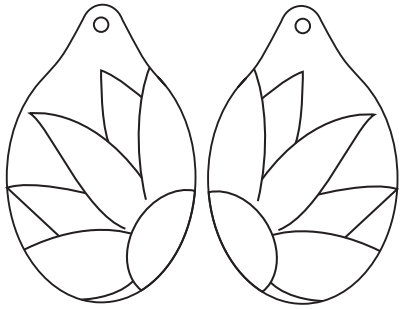
Practice Patterns

Here are some simple patterns to practice using your tools. Want more? Alden's School of Leather Trades has several free patterns as well as some videos on how to work with each one at leathercraftingschool.com. Don't worry if you don't follow the pattern exactly, it's more of a guide.

Sunflower Earrings

For this pattern you will need: a sponge and water, swivel knife, beveller, background tool, seeder, and mallet. Wet your leather with the sponge. Trace your pattern onto a piece of tracing paper or tracing film. Place the traced pattern onto your wet leather and trace it with a stylus to leave an indent of the pattern on your leather. Use your swivel knife to cut the petals and center of the flowers. Now take the beveller and bevel around the outside of those cuts you just made. Fill in the center of your flower by stamping with your seeder. Fill in the background with your background

tool to set off the flower you just made. Now you can paint, dye, and finish your leather. Add some jump rings and hooks, and your earrings will be ready to wear.



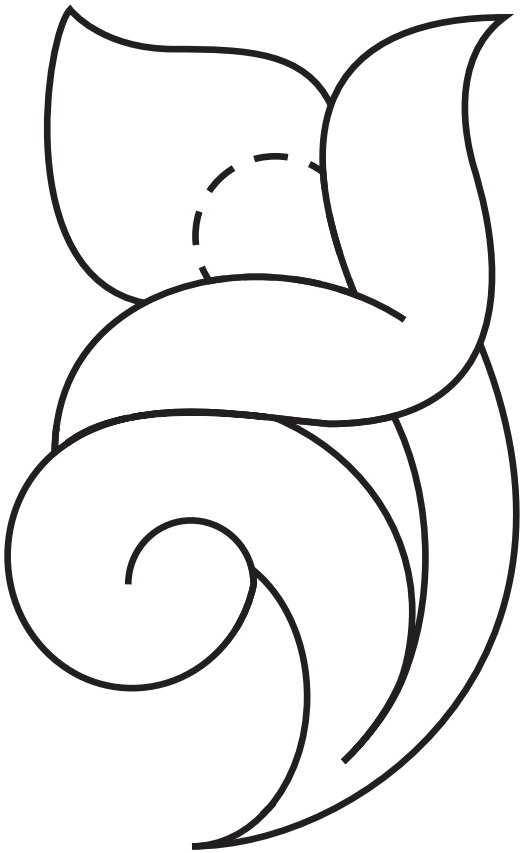
Basic Floral Pattern

(This pattern can be found on the next pages)

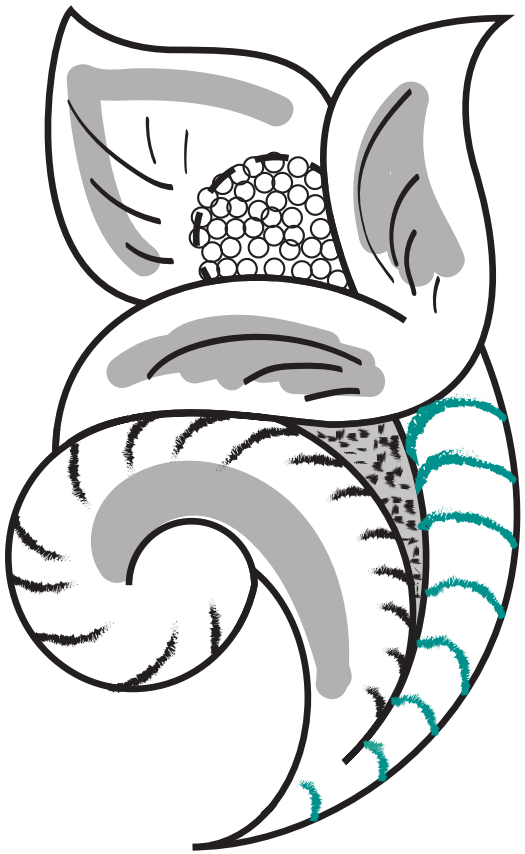
For this pattern you will need: a sponge, water, swivel knife, beveller, background tool, camouflage tool, pear shader, veiner, seeder, and mallet. Begin, as always, by using your sponge to moisten the leather. Trace your pattern onto a piece of tracing paper or tracing film. Place the traced pattern onto your wet leather and trace it with a stylus to leave an indent of the pattern on your leather. Use your swivel knife to cut what you've just traced out, except for the dotted line. Leave the dotted line as it is just a guide for stamping later. Move on to the camouflage tool on the stem portion of the pattern. The second pattern shows you exactly where this should be used. Now pick up your pear shader and use it to add dimension to the flower and the curl of the fern. Use the beveller to bevel where you cut with the swivel knife. Use your veiner to add to the

fern. Now use your seeder to fill in the portion of the flower where you made the dotted line. Fill in the triangle between the flower, stem, and fern with your background tool. Pick your swivel knife back up and make a few decorative cuts on your petals (as shown in the second pattern). If you want to see a video walk through of this, go to Tandy Leather's YouTube channel and search "Basic Leather Carving."

Trace this pattern.



Use this pattern as a guide.



camouflage
veiner
pear shader
swivel knife
seeder
background