MAKING & USING RAWHIDE
with Tamara Wilder

WHAT IS RAWHIDE?
Rawhide is a “raw hide”, meaning it is a hide which has not been tanned. Leather, on the other
hand, is a hide which has been tanned. The qualities that make rawhide so useful are many of the
same qualities that need to be defeated to make leather so the two products, although often confused
and interchanged, are actually very different from one another. Rawhide can be made either with
the hair left intact or removed, although rawhide from which the hair, but not the grain, has been
removed is the most common.

Rawhide is an amazing material that can be used in a wide variety of ways. When rawhide is wet
it decomposes and rots very quickly. When it is dry it is very stable and can last a very long time.
It can be repeatedly soaked up and re-dried. When wet it is malleable, stretchy and very dough
like, but when dry is hard and horny. This transformation allows it to form different products in
different situations. If dried flat it can be shaped in the dry form, much like stiff board or paper. If
used wet, it can be stretched around objects to which it will conform as it dries.

FLAT DRIED RAWHIDE
If a hide is staked out and dried flat, either tied into a frame or with stakes pounded into the ground,
then it will dry stretched and open & very drum-like. This flat dry rawhide can be cut, folded &
sewn into boxes, cylinders etc... to form hard rigid containers. If not exposed to excessive moisture,
these containers will retain their rigid shape. The thicker the skin, the stronger the container.

STORAGE
If the rawhide had originally just been laid flat or hung on a line to dry (instead of being staked flat
or laced in a frame) then the hide would have shrunk up into an unwieldy mass of hard but contorted
skin. In this shrunken dried state, the dried hide is not very useful, takes up a lot of space in storage
and takes longer to re-soak. When it is re-soaked, however, it returns to its original malleable and
stretchy state and can be then staked out once again to dry flat.

Generally, hides are initially staked out to dry flat for both easier storage, cutting and re-soaking
and then stored in that dry state until needed for some purpose. The desired shape is then either
cut out of the dried hide and re-soaked or the entire hide is re-soaked and the shape is cut out of the
wet hide. On thick skins, wet hide is easier to cut then dry hide.

FLAT WET RAWHIDE
The stretched and dried rawhide is soaked in water until malleable and then stretched tightly so
that it will dry “tight as a drum”. The cause of this tightness is the tendency of the wet rawhide to
shrink on drying. If the edges are secured then the fibers and glues in the skin are stretched and
form a strong, flat sheet of hide. Hoops, shields and framed hides are examples of this principle.

WET SHAPED RAWHIDE
The tendencies of wet rawhide to shrink and dry rawhide to stay put, are some of the qualities that
make it so useful. When wet, it is very stretchy and can be pulled taut around objects. If its edges
are tightly secured or some sort of resist is given for it to dry against, then it will pull and draw
down tightly around that object, eventually forming a hard casing in that shape. Drums, handle
hafts, hammers & bola rocks are examples of this principle.

Another variation on this idea is to stuff a rawhide shape with sand so that when it dries,
the sand can be poured out to form a hollow center. This is how rawhide rattles are often made.
AGEING
Fresh rawhide contains more moisture and therefore shrinks much more than older hides. As hides sit, they age and lose bound moisture and over time become less elastic. Therefore, it is better to use fresh (less than a year or two old) hides for drums or any purpose where you are trying to maximize shrinkage of the hide.

SOFTENED RAWHIDE
Often, the desired material is something between a hard horny rawhide and softened leather. If a piece of rawhide is dried slowly so the “gluing/drying down” character of the hide is minimized, then the hide can be “broken” or worked to break up the glues and liberate the fibers. Softened rawhide as a whole range of uses. Native American tribes of the Plains long ago developed an incredible art form in which they painted softened rawhide and shaped it into a variety of shapes used for horse tack (saddlebags). The parfleche process is very involved and takes several days to accomplish but exemplifies an extreme of beauty and functionality to which rawhide can be taken.

Rawhide lacing is often softened by pulling it around a drastic edge so that it can be made into flexible laces, cords or braided into lariats.

MAKING RAWHIDE
HAIR ON RAWHIDE
The hide is fleshed and then staked out or laced into a frame to dry. Goat rawhide is commonly made with the hair on.

GRAIN RAWHIDE
The hide is fleshed and then soaked in an alkali solution made from wood ashes, lye or lime until the hair starts to slip (several days to 1 week). Alkali solutions need to be mixed in plastic, wood or glass (not metal) and safety goggles and gloves should be worn to protect eyes and skin.

| Wood Ashes | (preferably from a hard wood like Oak, Madrone, etc...not Conifers, add ash to water until solution is a shake like consistency). |
| Lye | (add 4 oz. Red Devil Lye to 10 gallons H2O). |
| Hydrated Lime | (add 2 lbs... or 1/2 gallon dried lime powder to 10 gallons H2O). |

A standard lye solution strength test is to float an egg in the solution. If the egg floats tip up with between a dime and quarter size above water, the solution is good. If it sinks it is too weak. If it floats on its side, it is too strong.

The hair is then pushed out of the hide using a dull scraper taking care not to damage the grain. Then the hide is worked over with a scudding tool to push out excess mucus and clean the hide further. In order to bring the hide back to neutral, it must be very thoroughly washed in water until the alkali is removed or soaked in an acid solution of vinegar to deactivate the alkali. The hide is then rinsed to remove the vinegar and staked out to dry.

Grain rawhide is the most common method of rawhide used and is ideal for drums or any other purpose dependent on a lot of shrinkage and tightening down.

SCRAPED RAWHIDE
The hide is fleshed and then soaked in water for several days. The hair and grain are then removed using a vigorous “wet-scraping” technique. The hide is then staked out or tied in a frame to dry. This type of rawhide has minimal shrinking down characteristics as the grain is the layer of the hide that has the most elastic quality and it has been removed. Therefore, scraped rawhide is not suitable for drums or any use that required a lot of shrinkage.