

TANNING HIDES

By Oliver Cameron
with Ole Wik

How did you prepare a whole skin?¹

I want to start with the difference between tawing and tanning.

Tawing is just making the skin usable. It starts out somewhat like tanning, but instead of the glue in the hide being chemically changed, it's just broken up by friction and working the hide. Of course if it gets wet, it will dry up somewhat stiff.²

Tanning is putting the skin through a process in which the glue that makes the skin stiff is chemically changed, so that the skin becomes permanently soft.

There are two mediums that are used—well, three, actually. Nowadays quite a few of those skins are treated with soap or flour. In older times they were treated with liver or fish for instance. Fish oil dissolves in water. I'm not really an expert at this sort of thing, but I can describe what I've done.

After the hide has been taken off the animal and thoroughly dried, they can be kept for a while in a cache. Usually at that time of year there's not much time to spend on taking care of them.

When I get ready to use a hide, I put two or three of them on the floor as a cushion, and put the hide I'm wanting to use on top of that, with the skin side up. I take an ichuun and start scraping the skin, with the idea of getting off all of the flesh and fat and fascia that will break loose. That gets rid of a lot of the material that tends to harden up again real quick.



One of Oliver's handmade ichuuns.
Image source: [Molly Rettig, CCHRC](#)

Then I get a basin of warm water and a bar of soap. Fels Naptha works well, and that's what I've generally used, but any kind of soap will work. I usually put on just a little bit of some kind of powdered detergent, or even dish detergent, though I don't like the smell. The detergent helps the skin take up water.

I start rubbing the bar of soap on the skin, over and over, until I have worked up a lather. Then I fold the skin together, just in half, and stick it under the bed where it's not too warm. That gives the soap a chance to soak uniformly into the whole hide.

The next day, even just overnight, I take it out and use a table knife or whatever I have that's handy, scrape off as much of the soap as I can, and squeeze as much of the water as I can out of the hide. Then I drape it up over a chair. It's usually in the house, since it's wintertime by the time I get around to doing that.

When the skin begins to dry up just a little, I start pulling it. I stretch it one way, then the other way and back again, pulling it out as hard as I can in each direction. I put it up and let it dry for a few minutes, and then do the same thing over again, until it dries up.

As the skin is drying it tends to harden, and each time you work on it, you keep going until it's soft again. The idea is for the soap in the skin to mix with the glue in such a way that each particle of the skin has its share of the soap worked into it. You continue to work on it more or less regularly until it is soft.

You end up with a skin that has been saturated with soap, and the soap is a stabilized fat. That fat in the hide tends to keep it soft. The hide can then be used, just like that.

Or, you can smoke it. If the skin isn't smoked and gets wet, the soap will wash out or rinse out, and the skin will dry up a little bit hard again. The oils of the skin tend to take up the smoke, and the smoke somehow sets that fat into the hide better. There's also some creosote in the smoke that tends to preserve the hide and also helps to keep it from drying up hard.

Of course that method isn't perfect. It's not as good as tanning, because if you get the hide wet repeatedly or and keep it wet, it's going to get harder again—not flint hard as it was originally, but stiff. Then you have to work it again.

You can rub the hide between your hands, twist it back and forth, or lay it out and work on it with a stake. An ichuun is handy—one with a small diameter piece of steel tubing, depending on what you have to make it out of. It can be just a piece of pipe the size of your thumb, or a little bigger, on a wooden handle. Its use is to soften and stretch.

One edge is hollowed out so that it is sharp from the inside, and the other edge is filed square across. You switch from one edge to the other by reversing the tube on the handle. The sharpened edge can be used for the early process of scraping off the fascia and the little bit of flesh or whatever.

The hairs on a deer skin or a caribou skin are hollow, and keep breaking off. I don't know any way of avoiding that. It's much worse if the skin is kept in a dry house. They don't break off so quickly if the skin is kept out in a cache and out of the weather. The natural moisture in the air keeps the hide little bit damp.

A skin prepared that way, with the hair on, is used to make very warm mittens, and also socks for mukluks. Leg skins have shorter hair and are tanned the same way, but they're used for things that you don't want the hair to come off from. It will come off a little bit, but not as bad as the longer, larger diameter hairs on the main body of the skin.

I guess that's the main tanning process, or "Indian tan" I guess you'd call it.

Instead of soap, you can use water that fish has been cooked in, but then it's more important that you smoke the hide, since smoke tends to act as a preservative. The soap is stabilized.

When you use soap, it doesn't tend to rot the skin. If you use fish oil or mashed up liver and spread it on the hide, there will be some oil in the liver that will go into the hide. Brains are also

used the same way. I've used all of those methods at different times. You can make skins that are very soft by any of those methods, but they all really need to be smoked.

There's one other way that is quite commonly used. Instead of wetting the skin with the soap suds, just mix some flour and water. Some Eskimo people used to use sourdough, with a little soda. You put a layer of that flour paste on the skin, fold the skin over, and leave it a night or two, but not much longer than that.

When you get it out, you scrape off the liver or brains. There's not much to scrape off if you're using fish water. Then you treat it again as you would if you'd used soap.

The advantage of just using the flour is that you don't have any oil in the skin. I don't know what there is about the flour paste, but anyway it seems to mix in with the glue and keep it from hardening up as much as it would otherwise. However, the hide tends to be more subject to getting hard after it gets wet.

The main thing that I use that method for is for making mittens and gloves, because if you have a skin that has a lot of oil in it and it gets cold, they are not as flexible. The tanned hide is quite flexible, and is not too hard to soften up.

If you want the hair off, you can pull a lot of it off when the animal is first killed, while it still has the animal heat in it, but not all of the hair will come loose before it starts setting in. You just wet the hide and roll it up. It will stink some, but you check it and when the hair is loose, then you can scrape the hair off.

It takes lot of work to tan a moose hide. I don't usually tan or taw them. I'll drill a hole in a block of wood...well I'm getting ahead of myself.

First, while it's still flexible, not sappy wet but flexible, I'll drape it over the end of a tree, wedge that tree against the wall or something, pull the skin out with one hand, and shave the hair off with sharp knife. If you're careful, you can shave it right down like your face in quite a few places, but that's not really necessary.

Then roll the skin up and keep it damp for a few days. As soon as it gets stinky, that stubble hair that's on there will scrape off. You also scrape the flesh side. Then I usually just hang it up or spread out and let it dry. If you let it freeze dry outdoors, it won't be as stiff as it will if it dries in the house.

I've never tried to tan or soften a whole moose hide. What usually happens is that I cut a piece off that is big enough for whatever I need to make—say, a holster for an axe or a knife.

Then I auger a hole in the end of a birch block, lay the hide over that, and just start beating the hide down into the hole with a heavy ball peen hammer. The ball peen itself is 1-1/4" in diameter, and the hole in the block of wood is 1-1/2 or 1-3/4". I move the hide all the time, to cover all areas. It takes a while, but does a good job of softening it up.



Ball peen hammer.
Image: www.overstock.com

Then I usually put some kind of oil on it to keep it flexible, like neatsfoot oil, and use it just like that.

If you're going to use the hide for mukluk bottoms, you can make a form, wet the skin, and pull it up onto your form so that it comes halfway around the sides, or a little more. It will be puckered a little bit in various places, but you just tack it there and let it dry.

When you take it off the form, you cut off the upper edges and use the bottom part. It will be cupped up a little bit around the sides, and more so at the toe. You sew that onto a leg skin or another piece of leather or tawed hide, with the fur side in if you want, or with the fur out if you want a warmer item.

You can take some of the softer skin that you've worked on and make a sock out of it, to wear inside those mukluks. I usually have an insole that's made out of the neck part of a heavier hide, with the hair cut down to leave 1/2 to 3/4" on it.

I sometimes tack that with just a few stitches at the toe and heel onto my sock so that it won't tend to shift and crawl around too much inside there when I step down. Before I try to use it that way I cut that hair off, of course, and scrape the rest of the hair off.

What if you want to add some padding?

Cut it off so that there's 1/2", or maybe a little more. Use it with the hair side up.

How do you smoke a hide?

I have a smokehouse in which I smoke meat and fish. It has a stove in it. You can just build an open fire in a pan, but you have to watch it more closely. If you have a stove with one length of stovepipe and a damper, you can control the smoke better, and also the heat. You don't want too much heat.

I've also made various temporary setups. Some people just fasten the edges of the skin together to make a tube, and hang that over the fire so that the smoke goes up through it. Eventually they turn it wrong side out and smoke the other side too. It doesn't take too long to smoke it that way.

Anyway, that's the basic situation. Of course, it's like everything else. There are lots of little details that you learn by going along, and there's more than one way to get the job done.

If people want to tan small skins or furs, they usually use a soap, or sometimes flour. It's roughly the same thing. The point of all of the different ways is to soften the glue inside the hide with water, and then to introduce soap suds or a fat of some kind. Then you keep working the hide as it dries so that the glue is broken up into very small particles, each coated with that oil or flour mixture. That's your goal, and that's the way it's done.

One time I was visiting some Eskimo friends. The man's wife was making him a pair of winter mukluks. They had long tops on them, coming up just below the knees.

She cut out one of those legs and started sewing it up, and did very little scraping or tanning. It was just a raw hide, and she kept it damp enough that it was easy to sew. She saw me looking at her, and grinned and said, "Ronald's legs will tan them!" And they did.

What are some of the uses for those hides?

Mainly for mittens and socks and mukluks.

Thinking back, I'd sometimes fasten another lighter weight piece of skin over my insole, so I could put my foot, with socks on, inside of that toe part. It looked something like a slipper. The hair on the insole sloped back. That made my foot want to work back toward the heel. The toe cap kept it in place.

A little extra insulation over your toes is nothing to be sneezed at, at least not with my toes. If you don't have anything to make a permanent insole out of, grass does a good job.

You lay a handful of grass with the tips all the same direction on top of another handful that has the tips in the opposite direction. From the base of the stems on one handful to the base of the stems on the other, they're just the length of your mukluk.

Then you bend back the tips that are sticking out past the ends of the stems on one bunch, and do the same at the other end. That gives you four layers of grass, with the tips of the top layer facing one way, and the tips of the bottom layer facing the other way.

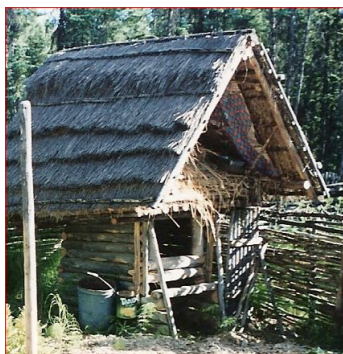
You shove that into your moccasin in such a way that the tips of the bottom layer are at the back and they tend to go in OK. The tips of the upper layer will be toward the toe, so that your foot in it doesn't rough them up so much when you slide it in.

Then you take your bare foot and put it in on top of that. The grass insole is usually big enough that it doesn't leave a whole lot of room in there, so you have to wiggle your foot in there and walk around a little bit to press it down,

That insole will probably be too thick on one side or whatever. You can take the thing out, shuffle the stems around the way you want them, and shove it back in. Then you put your sock on, and you're all set.

I like that type of insole a lot because it doesn't absorb sweat so much. Even if your feet are sweaty, it'll keep them warm longer than a skin insole will.

One of my chores in the fall time, after the grass has quit growing, is to go out and find a coarse grass that is suitable for making insoles. I also look for grass that's good for lining dog houses to make beds for them.



Oliver's doghouse. Image: ?

I have a two-story doghouse. I have a story that's on the ground where the dog can get against the ground, hollowed out for him. Then the main dog house that they use mostly. There's an A-frame on top of it, and that's where I put my grass. That way it's always handy when I need to put in a fresh bed for my dog.

When my dog sees me raking out the old hay and starting to put in some new hay, sometimes he can't wait. He'll try to get in there before I get it all in.

How about hides for bedding?

For that I usually just get most of the fat scraped off. If it's a real big hide, sometimes I'll use it as is. More often I'll take two medium sized hides and cut them straight across on the tail end. I usually just trim off the part between the legs, and use the thicker part.

When you use a skin like that for a bed skin, with the hair side up, it's always wanting to creep around. Either you move off of it, or it moves out from under you. For that reason I sew the two skins together in such a way that the hair on one is flowing the opposite direction from the hair on the other.

Of course those bed pads are always shedding hair. If you don't have a lot of shed caribou hair around, it's a cold and hungry camp.

1) This essay stems from a series of telephone conversations that Ole Wik had with Oliver between December 2007 and February 2008. Highlighted text indicates remarks made by Ole.

2) The word "taw" has two meanings. One, as Oliver indicates, is "to prepare or dress by beating". Another is to turn an animal's hide into leather without the use of tannin, especially by soaking it in a solution of alum and salt.

References:

- <http://en.wiktionary.org/wiki/taw>
- http://www.oxforddictionaries.com/us/definition/american_english/taw