

from the book *Buckskin: The Ancient Art of Braintanning*
by Steven Edholm and Tamara Wilder
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SKINNING, HEADS, BRAINS, & SO ON

Unless you go out of your way to skin deer yourself (or are very lucky), the skins you acquire will be, on the average, all cut to hell. Hopefully, this phenomenon will quickly drive home the importance of good skinning. Many people think they're doing a good job of skinning, when they are really doing a horrible job and spending far more time at it than if they knew how to skin properly. (Ironically, getting done quickly is often their primary objective.) Many hunters consider skinning to be a very distasteful job, which can be good for you since most will gladly allow you to skin the animal they've killed. On the other hoof, if you aren't there, it's the rare person who will do a good job of skinning.

Overuse and misuse of knives, combined with a poor understanding of the animal's anatomy, causes the ruin of most hides. A vast majority of the work in good skinning is done by pulling and by pushing between membranes, muscles, and skin with the fist or hand. It *is* important to have a sharp knife when skinning, but it must be used little and with great care.

Here is the common scenario of poor skinning: The person begins with a sharp knife and the misconception that the skin must be cut off of the carcass. There is a thin sheet of meat on the back of the deer called the *fell*. When the fell is encountered, an attempt is made to cut between it and the skin, so that the meat might be left on the animal. The hide is cut. Then, the meat is cut into (making it more likely to spoil). The hide is cut into again, then the carcass, so on and so forth. The neck, when finally reached, is found to be very adherent and is

slashed off, leaving plenty of score marks and half a pound of meat or so on the skin.

We once watched someone enacting this scenario in an attempt to teach his son to skin a deer. We had each already skinned a deer from the time he started and were watching the tragic comedy, as he meticulously and inefficiently cut the hide to ribbons. Our vexation was worsened by the fact that we were to be the recipients of the skin and that a new hunter was learning bad habits. After half an hour, he was only half way done with the job. Tamara could take it no longer and, strolling confidently forward, said "You know you can just do this", and with one pull, yanked the hide off down to the neck. He must have been embarrassed to be outskinned by a young woman but sportingly conceded that he would let us skin his deer next time.

Remember the adage, "There's more than one way to skin a cat?" Well, hell's bells, it's true! We'll give you our two cents on the subject of skinning deer (it'll probably seem more like two dollars by the time we're through, or twenty with inflation), but remember, there are endless variations one could use or invent.



Skinning tools. Sharpening steel, gambrel hook, whetstones, and selected knives. (Quarter shows relative size.)

Here are the methods used to properly remove a deer skin:

CUTTING: A very sharp knife should be used and the sharpness maintained. Most small to medium knives can serve the purpose as long as the temper is okay. If possible, though, some preference should be given to the shape of the blade. The accompanying photo shows some fine skinning knives. If we are skinning a lot, we keep a sharpening steel around to maintain the knife edge after hitting bones, cutting through ribs, and the like. A fine whetstone can also serve in this capacity.

The knife is used carefully and deliberately in specific areas to make fisting and pulling easier. It is used on some membranes which are difficult to tear and to gain access under muscles and membranes, so that the fist and fingers may do a cleaner and faster job of separating them from the skin.

It is very easy to stray, continuing to use the knife when the hands should be used. Once the legs and head are removed and the primary cuts made, the knife is used only rarely for the above mentioned purposes. Do we make ourselves clear?! Good.

FISTING: We call this fisting, but, in reality, it can be fingering, thumbing, elbowing, arming, and fisting. If you want, it could even be kneeling, footing, or heading. Fisting basically consists of pushing one of the above mentioned body parts between skin, muscle, and membrane to effect a clean removal of the skin from the carcass. Sometimes fisting is easy and sometimes it is not, depending on the part being fisted, the condition of the carcass, and the individual deer.

A great degree of the work in a good fisting technique is done with the wrist; the wrist moves the fist forward to squirm and burrow between the connective tissues. It is also important that the limb which is not fisting assist by pulling the skin away from the deer's body at an appropriate angle. The finer details of fisting will become natural over time, as long as you remember that both of the hands and the fisting wrist should be working and experiment accordingly.

PULLING: Pulling is just pulling on the skin to strip it from the body. We use fisting and cutting to set up the carcass for good pulls. A good long pull is very gratifying.

TO HANG OR NOT TO HANG

The animal can be skinned on the ground or hung up in one of two basic ways: head up or head down. We prefer to skin deer hanging, but if we had to go well out of our way to hang a deer, we'd just as soon do it at ground level. As far as which way to hang it? . . .they both work. We used to be hanger by the headers, but we always end up upside downers, because the people we skin for are set up to skin and store deer upside down. As hangers by the headers, we really thought that hanging by the head was better. Now, we've done so many upside down that it's easier for us to do it that way. We're not so sure that either one is any better. Really, it's more like give a little here, take a little there; maybe more importantly, which method you get used to.

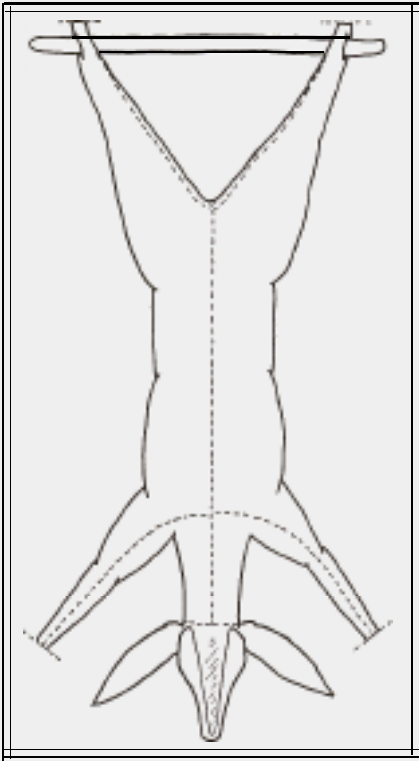
When hanging by the head, a rope is tied around the neck and the animal is hoisted.

When hanging upside down, the lower back legs are skinned out to expose that which is known to us, and on us, as the Achilles' tendon. This tendon along with some bones, joints, and other parts forms a sort of loophole into which is inserted a stick or a gambrel hook. If there is no gambrel hook or convenient stick, hang the animal by the head. If there is no rope either, skin it on the ground.



Skin flayed from around gambrels (Achilles' tendons on us) for hanging the deer upside down from a gambrel hook or stick.

BASIC SKINNING PRINCIPLES



The primary cuts for “open skinning” are made by sliding the knife under the skin, blade up. If the animal is not gutted yet, be very careful not to puncture the stomach or intestines.

Regardless of which method you should end up using, there are some things which apply to skinning in general. Let’s take a look at these and then at some specifics of each method.

-A warm, fresh body is easier to skin than a cold one, though the difference is not really as great as some would make it out to be.

-When cutting around the back legs, be aware of the Scent glands the fuzz oily-looking slits on the lower legs and tufts of hair on the hocks, where the skin is flayed back to expose the gambrels. Scent glands are mightily musky, and the scent/flavor can easily taint the meat if some care is not exercised. Getting this stuff on meat that will be eaten is like rubbing a steak in someone’s arm pit before cooking it, only worse. Avoid cutting through the glands.

If you touch the glands, wash your hands before touching the meat.

-After the deer is hung (or not) and the primary cuts are made, proceed with cutting, pulling, and fisting in from the edges of the primary cuts. The knife is used to get a start, because all of the folds and some tough membranes make these areas difficult to fist at the get go. Do not use the knife only: pull and

fist as well. All you should really be doing with the knife is flaying back the skin at the insides of the legs and pits (as in arm and leg pits), at the breast where the front leg and chest cuts cross, and at the throat. This initial flaying could be done without the use of a knife, but it would take much longer and require a lot more energy. *Once these areas are opened, allowing purchase for the fisting process, the knife should be put down and barely used again.*

-Remember *the fell* mentioned earlier? That thin sheet of meat on the back of the deer? Some good skimmers we know leave the fell on the skin, which is where it usually wants to stay. We used to leave the fell on the skin, just because it's faster that way; but now, we like to leave it on the carcass. The main reason we changed our ways is that the fell protects the rest of the flank meat from drying out during subsequent storage or aging of the carcass. Besides that, it's easy enough to leave on the deer and makes us feel like we did the job right. *As soon as the fell is encountered, you should gain access between it and the skin.* If not, you will find it very difficult to free from the skin once it is pulled away from the body.

-*The back of the animal* always skins easily. We recommend using a strategy of opening the edges of the primary cuts; fisting into the body to free up the fell, legs, pits, and groin; then pulling the whole back clean off. If the edges and sides are well freed up, the back can be stripped with one long easy pull.

-Don't hold onto knives while fisting. Otherwise, you are likely to cut all kinds of things, including yourself.

-*Wipe or rinse the hands frequently* during skinning, to avoid getting dirt, musk from the glands, and hair on the carcass. We don't mind eating a hair here and there, but deer hair really gets around easily, and since we're usually skinning for people who probably do care, we try to keep things as clean as possible. Also, the butchers, who are next in line to deal with the carcass, will have to clean it off, which makes their jobs much more difficult.



Make cuts in the skin by sliding the knife under the skin blade up (much better than cutting through the hair and into the skin).

photo by James Murphy



Cut only a little to gain purchase between meat and hide; then remember to set the knife down.



photo by James Murphy

Begin the fisting process from the side of the carcass. (Note the fell- thin sheet of meat to right of hand.)



Fist down towards the shoulder.



photo by James Murphy

Fist up towards the ham. The very important right hand assists by pulling the skin out at an appropriate angle.



Flank well freed up and ready for skin to be pulled off the back.



After the front and sides of the skin have been freed up, fist out the back legs and tail, and then, pull the hide off the back.



Pull back off down to neck.

photo by James Murphy



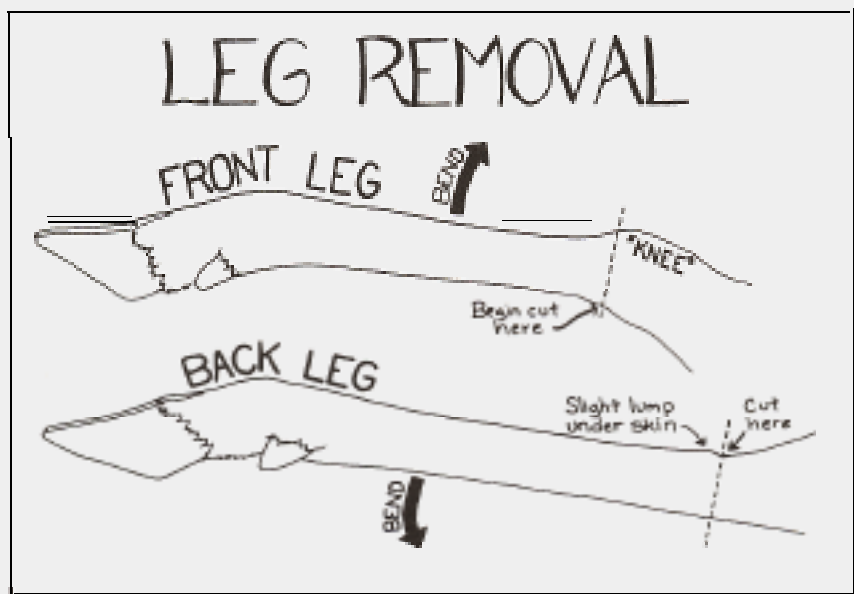
Skinning out the neck on an upside-down deer can require some careful and tricky knife work. Remove the head first in order to make this job easier.

REMOVING THE LOWER LEGS

The lower legs can be removed expediently and cleanly with a knife. Cut at the areas shown in the diagram, all the way around the leg. Cut as deeply as possible, down to the bone. The idea is to sever the tendons which hold the joint together. The tendons are hidden in channels and recesses of the bones and joints; so, it may be necessary to use the tip of the knife. After cutting around the leg, bend it sharply back over your thigh to snap the joint. If it does not snap, cut some more and try again. Once you can snap it, the joint will twist and separate easily.

Removing legs with a knife becomes very easy after you've done a few; it's mostly a matter of cutting at the right spot. Many people think that a saw is needed for removal of the legs, but once you've learned to use a knife, it is nearly as fast. Since you're cutting against bone, the knife will be dulled a little, but a knife of good character will be in fine shape after a few seconds on a steel or a fine whetstone.

Chapter 28, *Some Other Uses of the Deer*, offers some uses for the lower legs, which nearly every hunter will give to you if you ask for them.



Cut at joint of deer leg to remove without using a saw.



photo by James Murphy



Then, crack the joint over your leg.

HEAD REMOVAL

The head is removed where the base of the skull and the top neck vertebrae meet: known as the *ATLAS joint*. To find it feel at the base of the skull for a slight concavity where these two parts come together. Push the knife in at that point. With the blade under the skin, cut around one side of the neck all the way to the throat. This cut should, ideally, sever the skin, the muscles, the esophagus, and the windpipe. Cut the other side of the neck in the same way; then, twist the head and cut it the rest of the way off. If the head does not come off easily, bend it to one side, and sever the tendons which hold the joint together. Heads can be removed very quickly this way, and none of the neck meat is wasted. Also, you will feel like you did the thing

right, working with the deer's anatomy instead of rudely sawing the neck off. There's nothing like good head removal. Neck meat is very good when cooked properly. Here is our favorite neck recipe.

BRAISED VENISON NECK BURRITO MEAT

Put half a deer neck, bones and all, into a dutch oven. Pour in 3/4 cup of water. Sprinkle over the top of the meat any or all of the following spices, and don't skimp: coriander, cumin, black pepper, chili powder, and oregano; also, half of a sliced onion and some dried chilies of the hot, or not so hot, variety, depending on your preference. Put the lid on, and cook over low heat for four to six hours on the stove top or in an oven. If the meat is cooked at too high of a temperature, it will be tough. Check the water level periodically; there should always be a little water in the bottom of the pot. When the meat will shred easily, shred it finely with a fork. The finer it is shredded, the better. If there is much water left in the bottom of the pan, cook it down on the stove top to evaporate the excess, until there is only about half of a cup or so. Mix the shredded meat back into this liquor. Add salt to taste. This stuff is awesome in burritos made with flour tortillas and all the trimmings.

SOME IDIOSYNCRASIES OF SKINNING METHODS

HUNG BY THE NECK

- Cut the skin around the neck *before you* hang the deer.
- When the deer is hung by the neck, the neck itself is easier to skin. You must, however, start to skin it with a knife for an inch or so in order to get a good grip, so that you can begin pulling and fisting.
- The fell is more inclined to stay on the carcass this way than when hung upside down, though care must still be taken to gain access between it and the skin before wantonly pulling the skin off.
- The head cannot be removed while the carcass is hanging by it; so, if you want the head and enclosed brains, you will have

to either take it down or flip the deer around to hang upside down.

HUNG BY THE BACK LEGS:

-It is a common practice to simply stab a hole through the gambrel to insert the gambrel hook. This is quick and easy but pinches the skin under the hook and costs much time and patience in the long run. It is much better to flay the skin back from the gambrels until the tendons are well exposed and free of skin before inserting the hook.

-When the deer is hung upside down, the fell is less inclined to stay on the carcass than when it is hung head up. Deal with this problem by fisting between the fell and the skin at the ribs and from there up and down, from ham to shoulder. This step frees up both sides almost completely, so that the back will peel very cleanly and the fell will be left on the carcass.

-When hung upside down, the neck is more difficult to skin out, because the neck muscles sag. This problem can be obviated to a great extent by removing the head before beginning skinning. Still, skinning out the neck of any sizable upside-down deer usually requires some careful and tricky knife work. Pull as much as you can, then cut only enough to be able to pull more. Also, do not neglect to flay the skin away from the throat area, as it will hold the rest of the neck skin back. One more trick for skinning out tough necks is to step on the skin, instead of just using your arms and hands to pull it off.

SKINNING ON THE GROUND:

-When skinning on the ground, it's nice to have a clean tarp or cloth to lay down. A tarp will, however, help only a little in keeping the carcass clean, since dirt and hair will get all over the tarp anyhow. Therefore, even with a tarp, it's best to skin out one side of the animal, and then carefully lay that half of the skin out to receive the carcass when you roll it over to skin the other half.

-It's very convenient to have two skinners with this method: one being available to act as a counterforce to pull on legs and such, while the other person pulls on the skin.

SKINNING WITH A VEHICLE OR WINCH:

A lot of hunters like to talk about this but, sadly, few practice it. Skinning with a vehicle or winch usually makes for a very clean hide.

This technique is very simple. With the deer at ground level, make the neck skin cut, but cut *above the ears so as to leave them on the skin*. Skin the neck down a couple of inches, so that it will not catch under the rope when the animal is hung. Hang the deer by the neck from a sturdy immovable something. Cut off all four legs. Finish all of the primary cuts completely, and then, flay open the chest, ribs, legs, and pits. (The flaying out is somewhat of an extra step but prevents possible tearing of the skin, at least for thinner skins). Tie a stout rope to the neck skin, just below the ears. Tie the other end to vehicle or winch and go. It is best to pull slowly, which is easier with a winch than with a vehicle, so that any part of the skin that might hang up can be freed. When the skin is nearly off, get out of the way! Even a light deer's worth of dead weight can knock you over pretty hard.

CARE OF THE MEAT

Although having little to do with tanning, a few words on basic meat first-aid would not be amiss.

Blood putrefies very quickly; so, the animal should be bled to remove as much blood as possible from the meat. Gutting the animal very soon after it's killed should effect adequate drainage of blood from the meat, if the wound that killed it hasn't already. Be sure to remove the windpipe and esophagus.

Moisture, heat, and dirt are the spoilers of meat, probably in that order of importance. It is crucial that the carcass dry off quickly and remain dry; so, if it's fairly clean, don't wash it off simply wipe the body cavity free of blood and debris using a damp rag. If it is very dirty, especially if "gut shot", go ahead and wash it out, but be sure that you dry it off well afterwards. Regardless of washing or not, prop the body cavity open with a stick to allow air circulation.

If an animal is well-skinned, there will be few cuts in the meat to allow bacterial entry. The outside of the carcass will glaze over, and the meat inside will keep remarkably well.

Don't put meat into plastic until it has cooled and is to be frozen or refrigerated. The plastic cannot breathe, and the meat will sweat and create a moist atmosphere, which will hyper-speed the spoilage rate. If put into cloth, it will be protected from flies and their egg laying ways, yet stay dry and continue to cool.

Keep the carcass cool until it is to be dealt with. Our friend Ray Harden, to whom we owe credit for many tidbits of skinning and meat care information, hunted the hills of the Central Coast of California as a youth. It gets very hot there but cools off at night. He and his friends would hang deer carcasses up overnight to chill and then wrap them in sleeping bags during the day to stay cool.

BRAINS

Since we are braintanning, you will want to extract the brains from any heads you might have access to. With the emergence of Mad Cow Disease (Bovine Spongiform Encephalopathy), we consider it best to use only wild, organic, or "home grown" brains, and therefore, no longer have the luxury of being able to go to the local supermarket and buy already extracted brains in nice neat plastic containers. Whether gathering brains from wild animals or from local farm raised animals, you will most likely have to do it yourself.

Brain extraction is best accomplished with a bone saw. A bone saw, for those unfamiliar, is like a giant hacksaw for sawing up carcasses. The bone saw is not a common household item; so, you may have to use other less efficient means for cranial access on cervid noggins. If you are planning on cutting open a lot of heads, we really suggest that you acquire a bone saw from your local hardware store or flea market.

When using a saw, the skull cap is cut off to remove the brain. The easiest way is to cut a vee out of the top of the head, but this method makes for an unwieldy skullcap. If you are skinning for hunters, they will greatly appreciate a more aesthetic finished product. To make a flat skull cap that will mount or hang easily (or, in the case of does, that can be used for crafts projects), saw in first on top of the snout just a little ways in front of the eyes, but only enough to cut through the skin and

cut the bone a little. Now, lay the head so the nose is pointing up. Turn the saw ninety degrees and cut towards the back of the head, aiming right through the tops of the eye sockets.

If you don't have a bone saw, the next best thing is a hatchet or axe. A sharp hatchet will work better than a dull one; a good hatchet will not be damaged by chopping through bone. We could chop on bones for hours with our prized Swedish hatchet, and it would need only a thorough sharpening-no nicks, bends or chips. Unfortunately, it is hard to find a good hatchet

A crappy, dull, poorly tempered American hardware store hatchet will work passably well for splitting open heads. Start at the nose and split the skull down the center all the way to the back, until the two halves can be pulled and pried open. This split more or less follows the bifrontal suture of the skull. This method is almost as fast as a saw and very clean. Don't use your bare hands alone to pull the skull open. The bone shards are extremely sharp! Wear gloves, use a rag, or be creative and do something else.

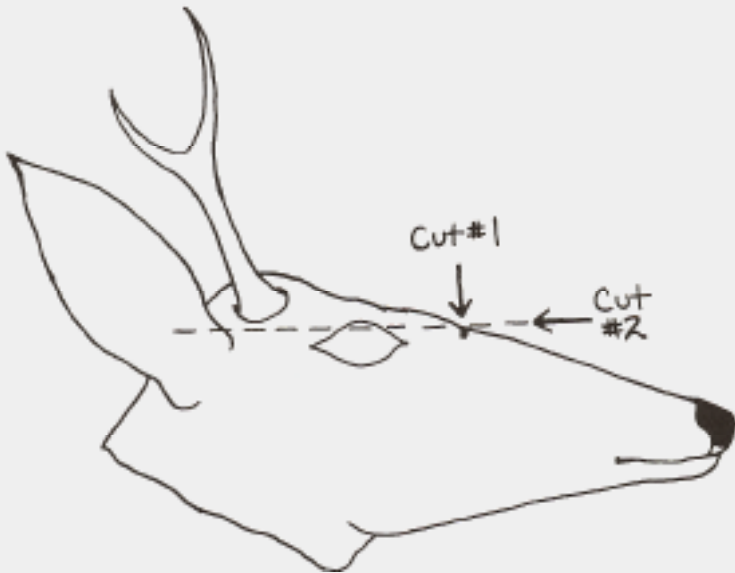
It is very tempting to just hack in to the top of the skull with a hatchet and pull out all of the bits of brain you can find. The problems with this approach are numerous. First, the brain usually gets fairly pulverized and it is difficult to get all of it out. With either of the other two methods, the brain usually comes out in two nice pieces. Second, bits of the skull inevitably end up in the mashed brains and will either cut you or get jammed in the blender later. Finally, hacking a rough hole in the top of the head makes the most dangerous and sharp bone shards of all and you will most likely cut yourself.

Once the brain is removed, it should either be used very soon or preserved. If preservation is a hassle and the brain is to be used within a few days, leave it in the head until it is needed; it will keep better in the head than it will lying about. We're assuming in this case that you have no refrigerator, which would keep the brain for a week or so. Brains rot very fast; so, don't procrastinate on dealing with them.

Freezing is the most convenient way to store brains and will keep them almost indefinitely.

The other option for long term storage is drying. The brains are mixed thoroughly with moss, dried grass, lichen, or some

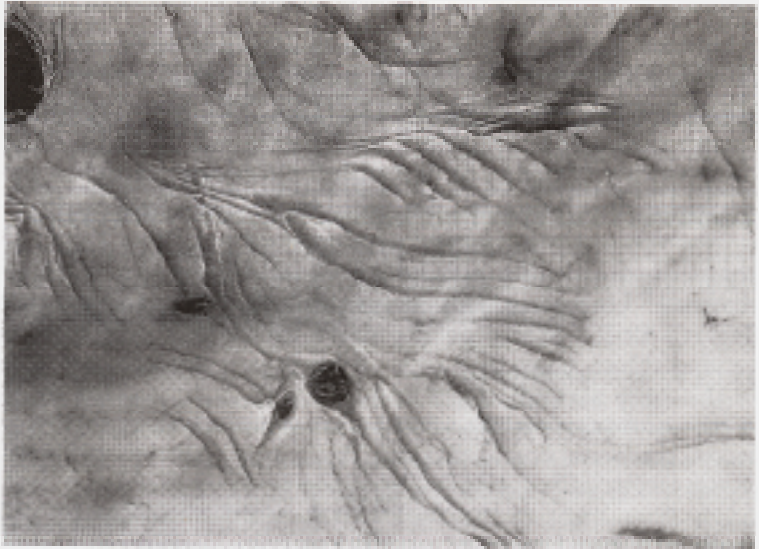
other such absorbent material. The mixture is then formed into cakes and dried by action of sun and/or fire. When needed, the cakes are dissolved in hot water and the plant material removed.



*Pictured is the best method of removing the deer skullcap. Using a bone saw, start a cut on the top of the nose, just below the eyes (**Cut #1**). Cut just enough to get through the skin and nick the bone. Then, turn the head so the nose is pointing up and start the next cut (**Cut #2**) in the nick provided by the first cut. Aim through the top of the eye sockets and just above the ears. may be helpful to have someone step on or hold the antlers to stabilize the head. When the cut is almost through the last bit of bone, the skullcap is then hinged open and the remaining piece of skin cut with a knife. Don't forget to remove the piece of brain which may still be attached to the underside of the skullcap.*

FLESH
IS TRANSIENT...

photo by Margaret Mathewson



... BUT SCOREMARKS
ARE FOREVER.