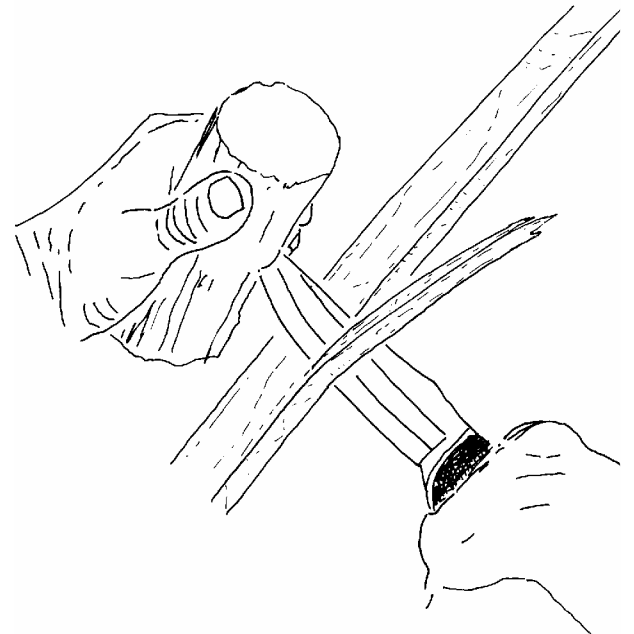
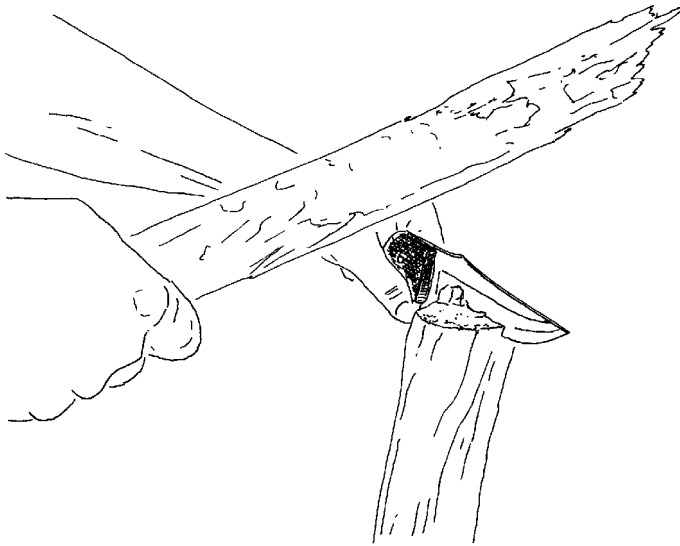
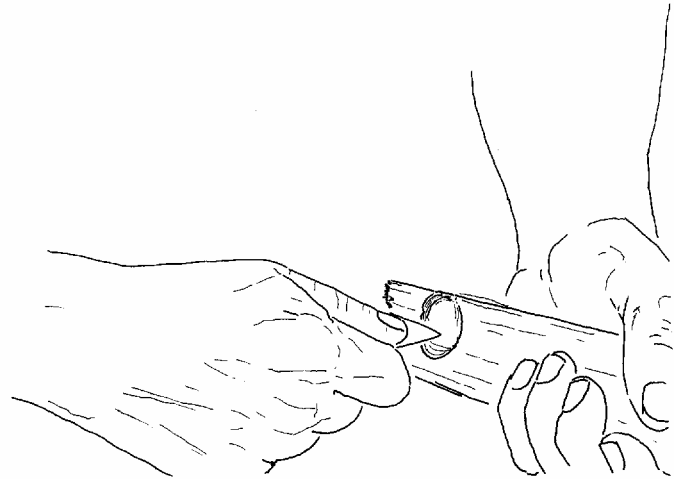
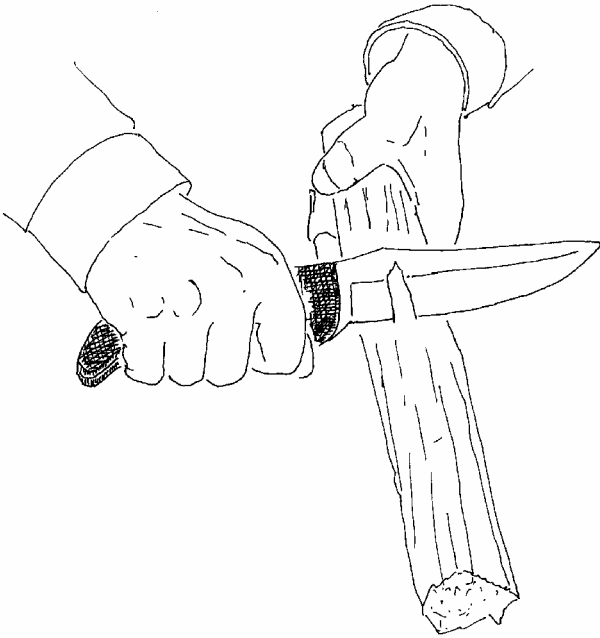


Outdoor Knife

The Outdoor Tool for Primitive Living



Concept and description: ©Christof Hagen SurvivalOutdoorSchool www.goSOS.com

Supported by: Victorinox www.victorinox.com

Translation by: Jim Lowery www.earthskills.org

Background:

In my professional outdoor work I have tested many different knives. And while every one had both good and bad points, I never found a single knife that would perform a full range of wilderness tasks. Therefore, I decided to develop a knife that would work for both rough and fine work, and one that could be sharpened under primitive conditions. The result is the Outdoor Knife.

The following tasks were accomplished entirely with the Outdoor Knife: (A description of the most important applications follows; see also the SOS course offering.)

- a) Friction fire: From the manufacture of the apparatus to the production of the coal.
- b) Shelter: Warm, waterproof shelter for 1-3 people.
- c) Primitive cooking: Harvest and preparation of edible plants.
- d) Hunting bow: Complete creation from a 12-inch round blank to a finished bow.
- e) Game processing: Complete field dressing of game.
- f) Woodworking: Complete manufacture of snowshoes from harvesting the wood to the working product.
- g) Shingles: split shingles from a block of wood, including fine work.

About the Outdoor Knife:

The invention of a cutting tool was the greatest technical achievement of our ancient ancestors who lived off the land. It began with the stone knife and following a long development culminating in today's steel knife.

The Outdoor Knife was formed, developed and tested in practical use over eight years before it could be considered wilderness-ready.

It was designed for work with:

- Soft wood to hard wood
- Bone
- Plants

and for these tasks:

- carving
- cutting
- splitting
- scraping
- boring
- hide tanning
- game dressing
- measuring (reference: blade = 4 3/8 in., handle = 4 3/8 in., blade width = 1 3/8 in., blade thickness = 1/8 in.)

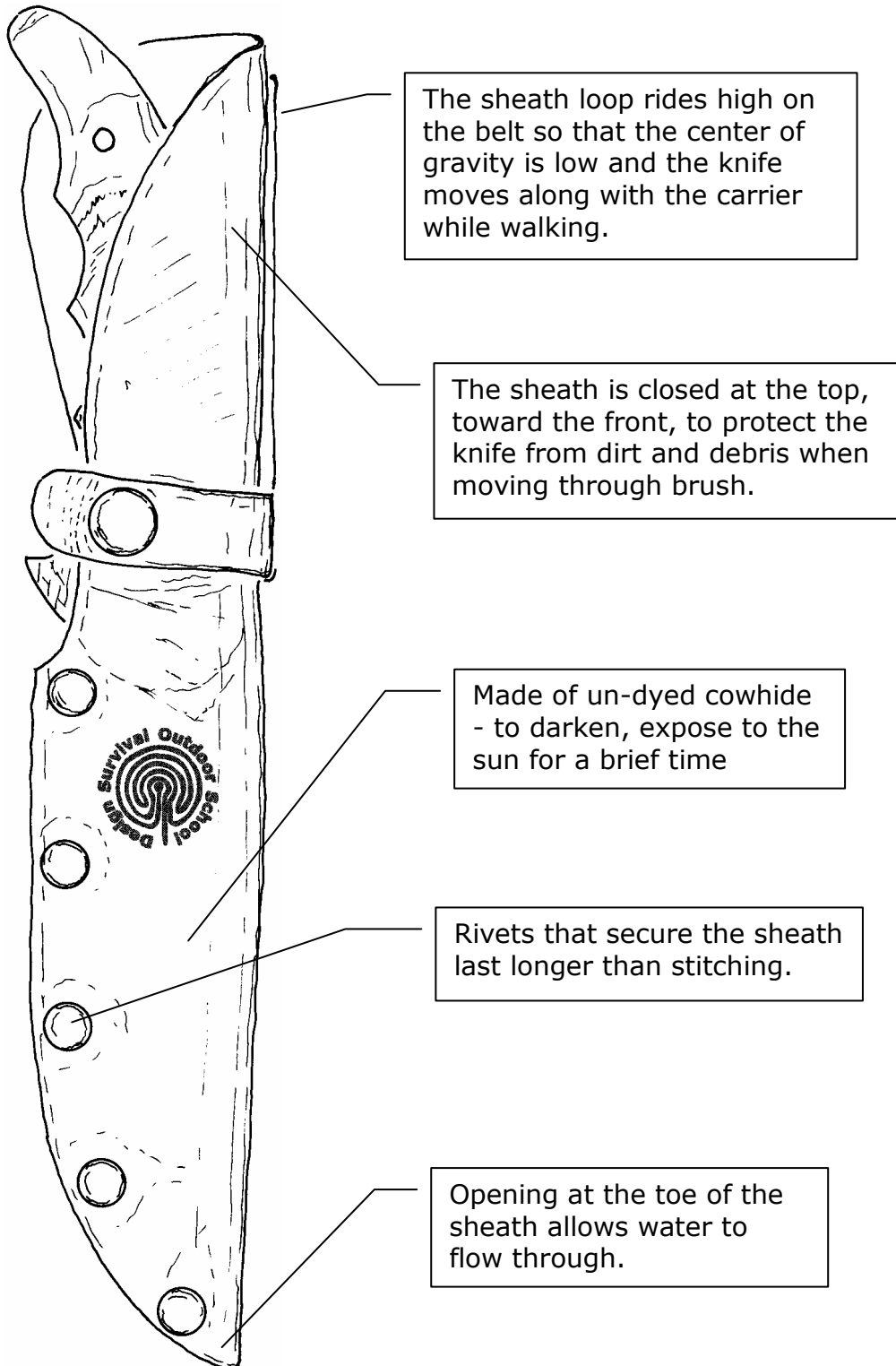
however it is not made for:

- throwing
- spearing and lancing
- combat
- left in a vitrine to accumulate dust (collectors piece)

Although no wilderness knife is ideal for all applications, a single knife can facilitate primitive living, when used properly.

KNIFE DESCRIPTION

Sheath view:

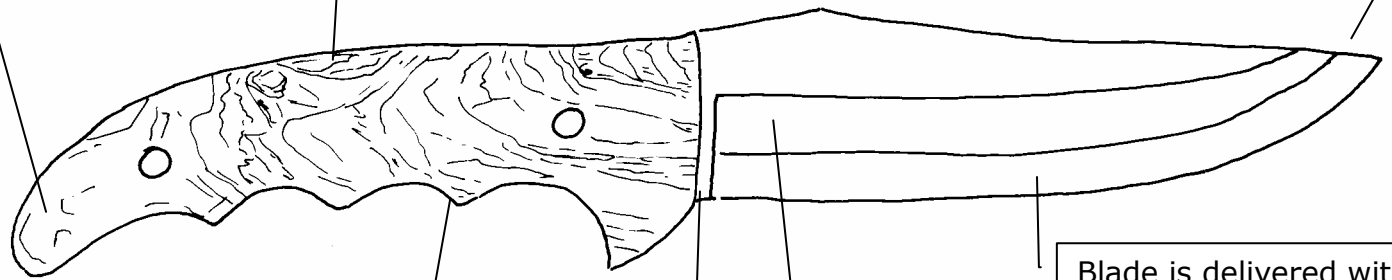


Side View:

Ergonomically designed grip follows the surfaces of the clenched hand during carving motions.

Handle is cut from European olive wood, a warm, durable material with good grip. It can be made supple with an occasional application of linseed oil. The grip can be adapted to individual hand size by working the wood down – just be sure to grind the rivets down so they don't protrude. Or, if the grip is too small, wear good-fitting leather gloves, like deerskin.

Knife point: The back of the blade remains thick almost to the point, making the knife extremely sturdy at this vital point



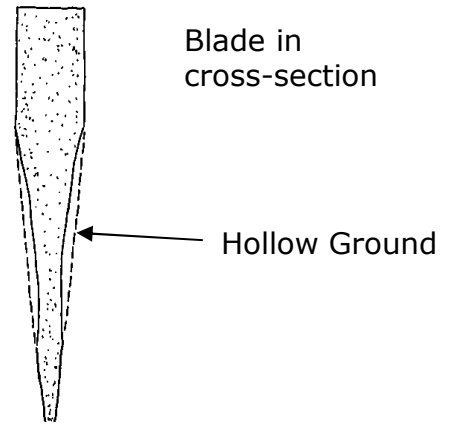
A finger-friendly grip form ensures precise control of the blade, especially for long carving projects. A good grip allows one to feel the blade's position without needing to watch the blade constantly.

The 45° angle of the finger guard allows the full length of the blade to be used in chopping motions.

Cutting edge extends all the way to the grip so that its entire length can be used.

Blade is delivered with a very sharp, 20° bevel. This angle must be adjusted for working with hard wood or bone. (See knife sharpening.)

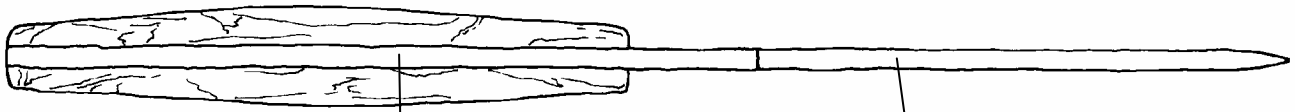
Grooves on the side of the blade prevent the knife from getting jammed in a piece of wood.



Blade in cross-section

Hollow Ground

Top View:

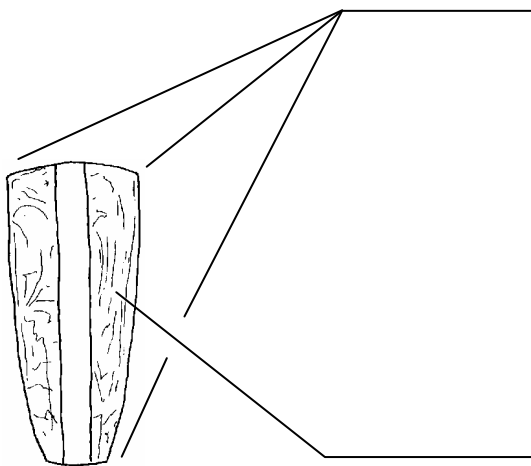


The bulge in the middle of the handle provides a perfect grip.

The extension of the blade through the handle gives the Outdoor Knife the greatest possible stability and perfect balance. The center of gravity is in the hand, not in the blade.

The blade is 1/8 inch thick throughout, enabling the knife to be sturdy enough to split wood, but as well as for fine work.

Rear View:



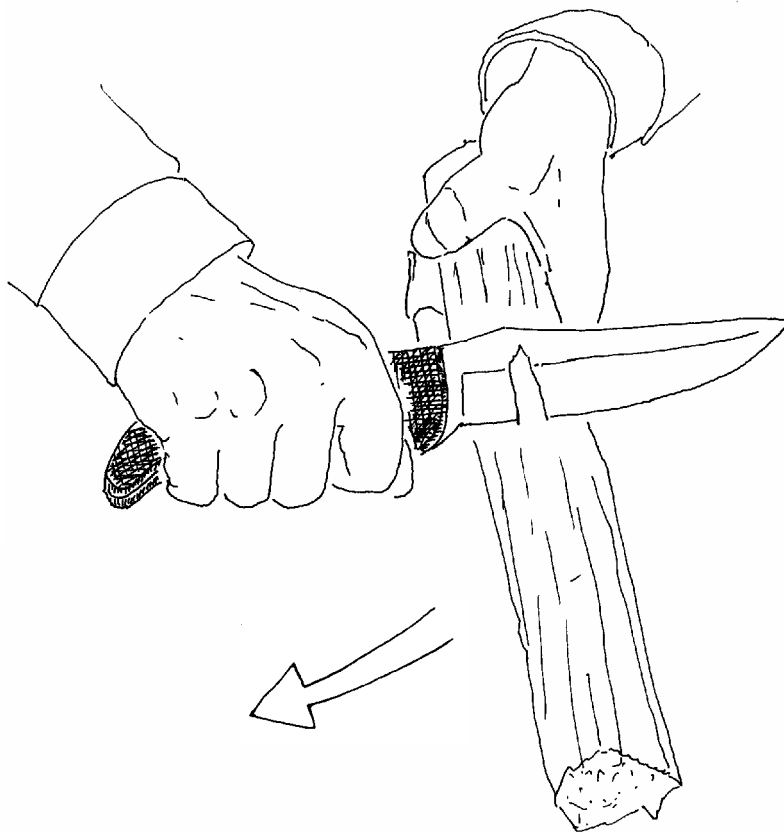
The pronounced 4 corners allow an extended work time with an exact feel for carving. If the corners are too sharp, wear a leather glove until your hands have become used to the knife's shape.

The V-shape is ideal for a grip. When the hand closes around the knife, the upper thickness provides an anatomical seat between the fingers and palm. As a result every carving motion can be precisely controlled.

The OUTDOOR KNIFE is a versatile tool.
Following are **TYPICAL APPLICATIONS OF THE OUTDOOR KNIFE.**

Carving

For carving, a slicing motion should be made with the knife. (That is, the blade should be positioned at some angle to the wood, and after the blade "bites" into the wood, the hand is rotated upward slightly and then away from the carver as each shaving is removed.) A knife does not work by force alone, as with an axe! Body position is also extremely important. It's a good sign when long shavings are produced while carving. Also: Don't exert excessive force when carving; instead use a slicing motion.



Body Position:

The ideal body position is kneeling, since the carving motion of the arms occurs naturally without impediment.

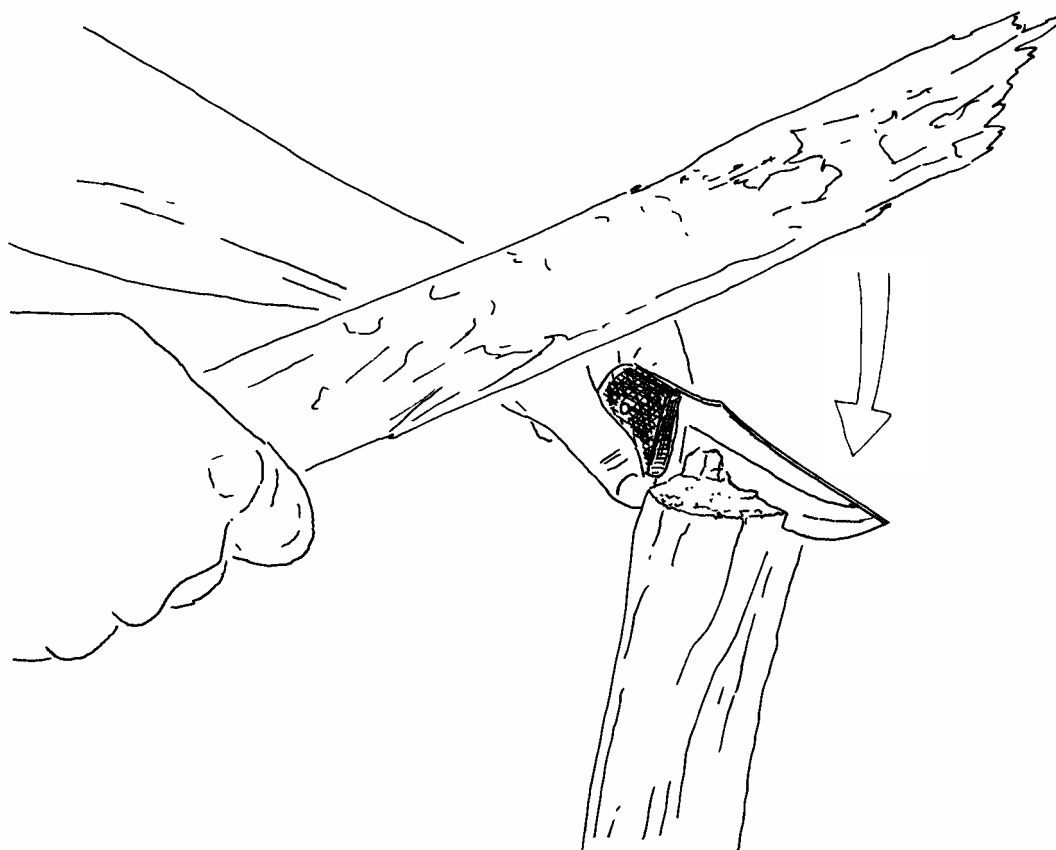
Splitting:

Splitting wood for fires, the manufacture of shingles, etc.

The technique illustrated below is safe because the splitting force comes from striking the back of the knife with a piece of wood, not from swinging the knife.

Important!

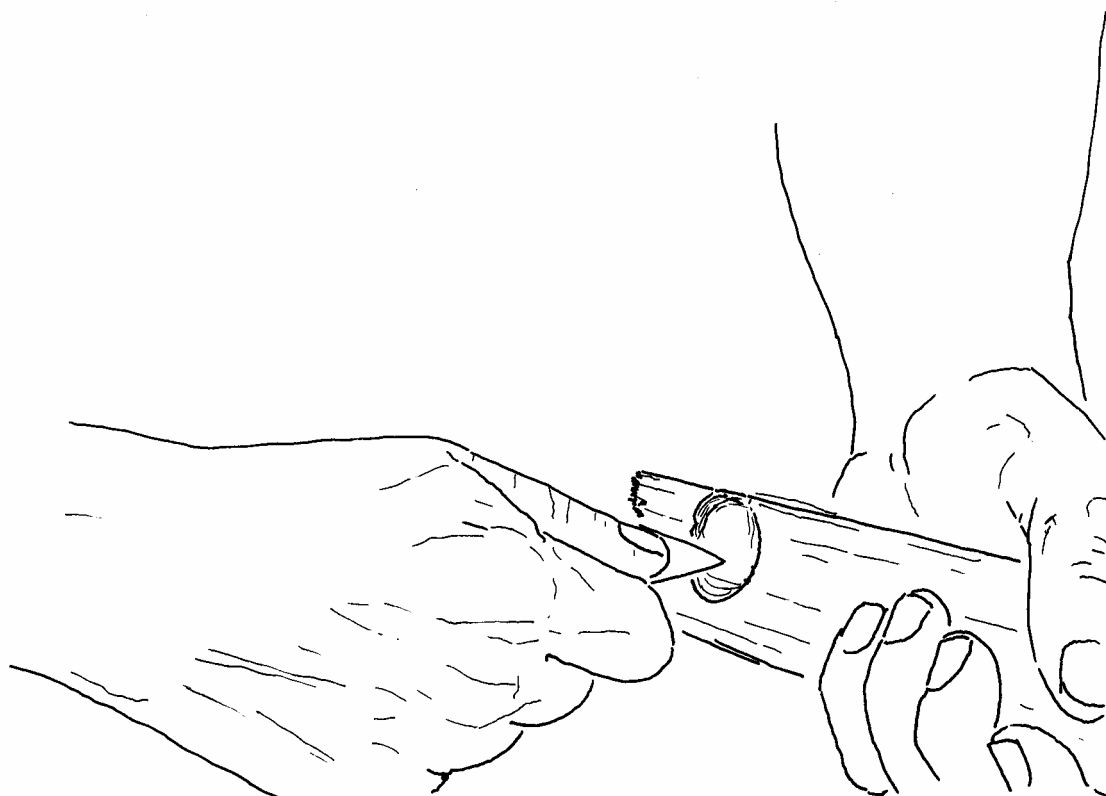
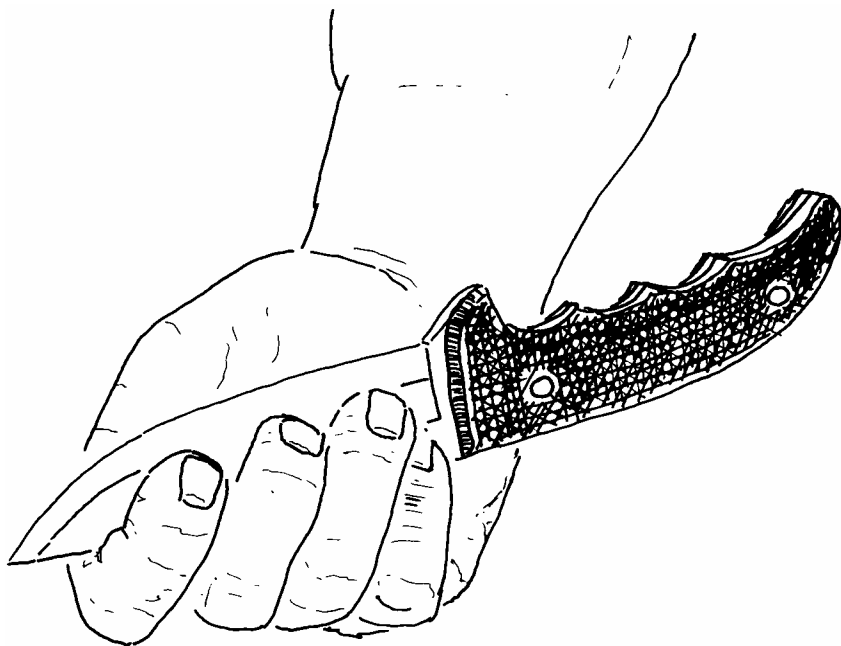
- **Don't strike the knife handle, since it can be damaged.**
- Place the wood to be split on a secure foundation, making sure the foundation will not damage the blade if there is a slip-up. In short, don't use a stone!
- Use the knifeblade as a wedge along the woods grain, using the woods natural tendency to split along it.



Fine work:

Even though the knife is relatively large, it can be used for very fine work.

The knife is held in the hand as shown below. This way, detail work is possible, such as scraping out small, crater-like depressions as within a friction fireboard.

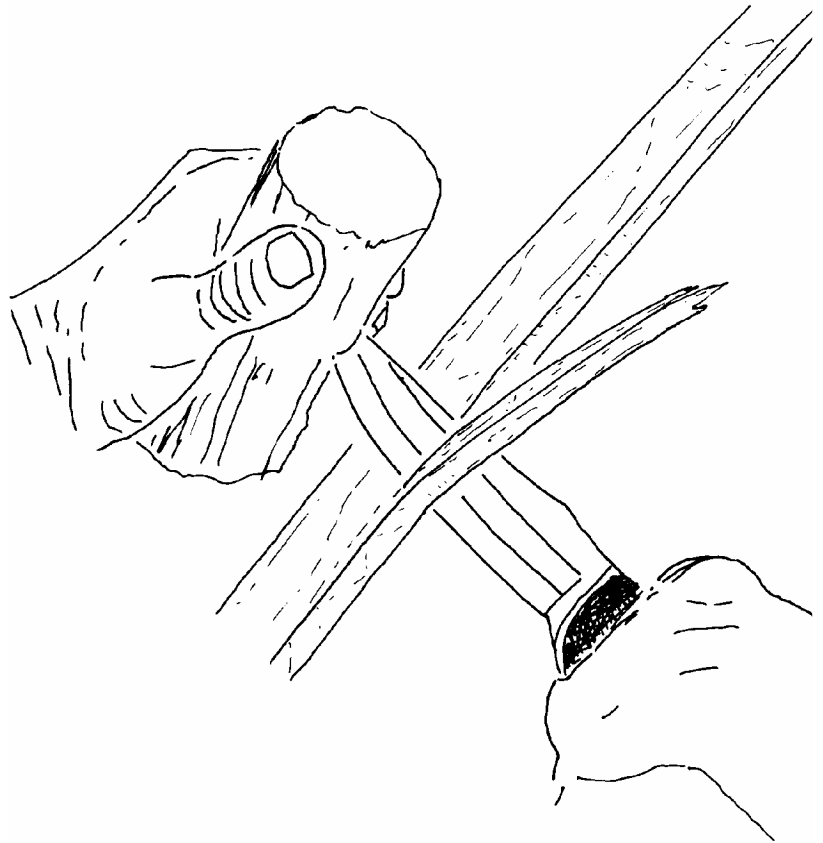


Draw Knife:

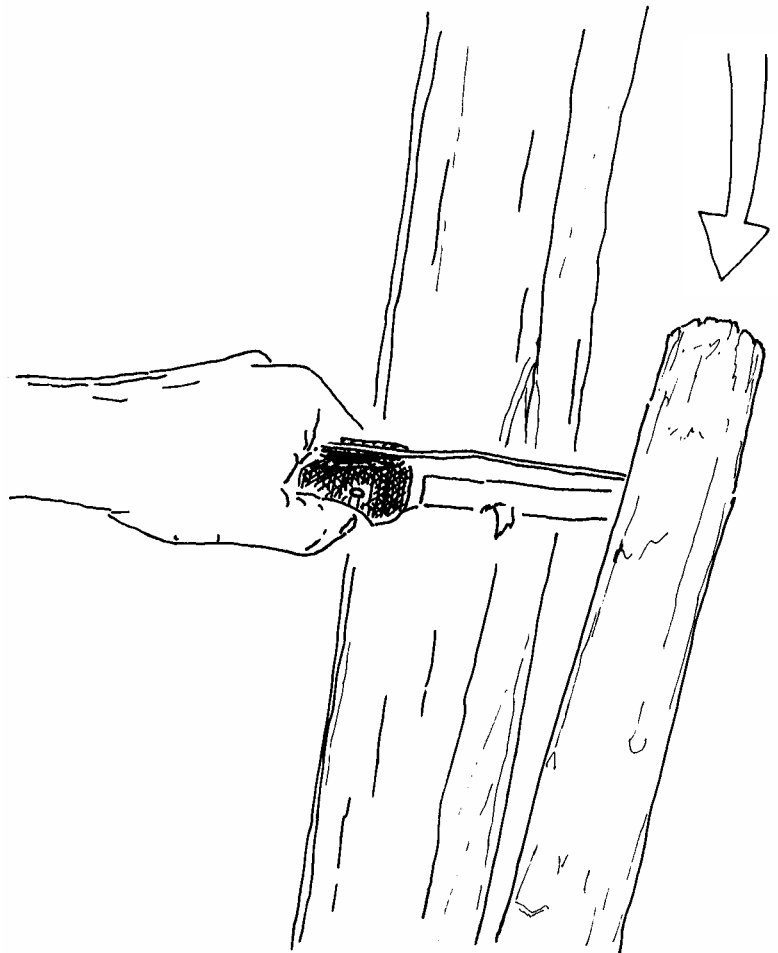
The Outdoor Knife becomes a draw knife by driving its point into a hard piece of wood that becomes a second handle. A controlled cutting motion can then be undertaken.

Caution!

- This improvised draw knife requires experience and improper use is dangerous.
- It is extremely important that the knife tip is embedded firmly in the piece of wood. As soon as the connection loosens, reseal the knife securely or switch to a new handhold.

**Chisel:**

When a large piece of wood or bone must be shaped, the knife can be struck on its back to control the woodworking precisely. This uses less force, and the work is safer and more exact.



Grinding and sharpening the knife:

It's essential for the user to learn and understand proper knife sharpening technique. A dull knife is less efficient, requires more effort, and is more prone to accident.

Sharpening or grinding knife blades is an art that requires much practice, and can only be addressed briefly. But here are a couple of good suggestions to get you started.

It is easier to learn sharpening with a softer blade of greater iron content. Working on a piece of wood, examine the knife's sharpness, blade bevel angle, and the length of time required to dull the blade. Closely analyze the sharpness of the knife before and after carving. This is best done with a 4 – 12x magnifying glass and a strong light pointed at the blade's edge.

Now experiment with various grinding angles. In this way, a feeling for the correct bevel angle is developed, and you can control your sharpening technique with the magnifying glass. Typical mistakes are asymmetrical blade edges and irregular sharpening angles along the length of the blade. (However, don't be too self-critical: every steel knife, including scalpels, have visible grinding flaws).

The sharpest blade without defects can be seen with a flaked flint blade, the stone knives of our ancestors.

After grinding the edge, you should polish it along its entire length with a polishing stone. This protects the edge from separating, and removes the burr that is inevitably produced. In sharpening, the stone should be covered with oil or water so the stone doesn't get dirty.

The Outdoor Knife is delivered with a 20° bevel. Factory sharpening is done by hand and may vary about 1°.

The sharpening angle must be adjusted according to the knife's uses. Here is an overview of the most important bevels.

Blade angle	<16° Extremely sharp	18°	21°	25°	>27° Dull
Application		Leather Kitchen Game dressing	Soft & medium wood	Hardwood Bone Splitting	
Edge longevity		Dulls quickly	Universal sharpening edge	Good	
Used in:	Razor blades	Pocket knife	Outdoor Knife		Axe

Arkansas stone and diamond stones are good honing surfaces for the Outdoor Knife. They come in various grades of coarseness. A practical, small, universal and good sharpening stone for this knife is the Victorinox diamond stone.

<http://www.victorinox.ch/newsite/en/produkte/produktedetails/haushalt/haushalt7.htm>

Composition of the steel:

The chemical composition of the Outdoor Knife's steel is as follows:

INOX-1-42-MOVA

C	Mn	Si	Cr	Mo	V
%	%	%	%	%	%
0.53	0.50	0.35	14.50	0.50	0.18

This steel is used in the following products: surgical instruments, cutlery, tool steel, pre-formed foam plastics, and of course, the Outdoor Knife.

Comparable steels:

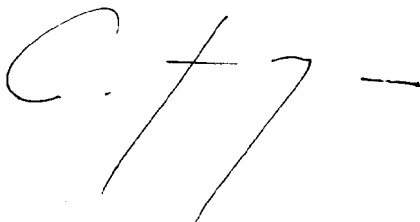
UNE	DIN	SAE/AISI	AFNOR
F-3405	X48Cr13	420	Z50C13

Cautionary notes:

- *Whenever the knife isn't being used, replace it into its sheath.* While this sounds like common sense, accidents can occur - even with experienced survivalists.
- *The knife should never be stuck into the ground.* A person can easily be injured by stumbling onto it, and the knife itself may be damaged by contact with stones.
- *Work with the knife while sitting or kneeling.* Walking around with an exposed knife is an invitation for serious injury.
- *If possible, wear leather gloves,* for the best grip and to prevent blisters!

Conclusion:

I would appreciate hearing about your experiences with the Outdoor Knife, as well as receive any feedback about this manual. Please write me at the address on the next page. I wish you much success and good experiences in nature with this knife.



C.Hagen



The Outdoor Knife was created by Christof Hagen, founder and instructor of SOS (SurvivalOutdoorSchool). For further information and for course information, contact:



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