

#### **James**

- Gear reviews and tests - Edged tools - Axes and hatchets -



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#### **Description:**

I find axes in the 50 cm size very useful, much more than hatchets that can be easily replaced by a knife. Here is a comparative of two very different small axes.

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The Roselli long axe, and just below, the Gränsfor Bruks SFA



The same, here shown with a huge japanese saw, Note the differences in length and compactness



# The Gränsfors Bruks Small Forest Axe

Here in it's sheath



Here stuck in a piece of olive wood



The Small Forest Axe, is a very nice looking axe. The head is forged (machine forged), and the handle is some nicely grained american hickory wood. The poll can be used as a hammer. The Small Forest Axe (SFA) is really targeted at nordic forests, so its head is very thin and concave after the bevel, excellent for limbing and cutting in soft green woods. It is very well balanced, and handling it is a pleasure. It comes with a sturdy leather head protection.

Length: 50 centimetre. Useable handle lenght 45 cm. Total weight with sheath is 1000 grams. Price: 50 Euro.

My SFA came with a blued head, and some deep rust spots would develop even with the head soaking in Ballistol or any other rust preventive oil, and the weather was dry!. It got better after a bit of sanding, metal brushing, and application of phosphoric acid, with a protective permanent coat of Danish Oil (linseed oil and pine resin). I ground cleaned the poll to make it flat and remove forging marks.

SFA head profile



SFA head



# The Roselli Long Axe

Here in its very well designed sheath



I could not make it stick to the piece of olive wood! This design does not allow the head to stick anywhere...



The Roselli long axe, is the result of a 5 years development by Heimo Roselli, to create an allround use axe. The

head is very compact, probably precision moulded, or precision drop-forged. It shows the same amount of edge than the SFA, as well as a small hammer poll. It is bearded, and this allows some very precise grips to use the axe as an Ulu. The edge shows some good belly, and will allow a skinning or knife use. The belly also seems to increase penetration. The profile is very thick, with a very straight bevel going on 2 to 3 centimetre (check the picture). The handle is made from linseed oil protected birch wood, and is fairly thick. It comes with a leather protection, which locks with a belt buckle, and also serves as a belt sheath. Length: 46 centimetre. Usable handle lenght: 45 cm. Total weight with sheath is 900 grams. Price: 80 Euro. The Head came nicely darkened with burnt linseed oil (leaving a layer of carbon), no rust problem so far.

Roselli head profile



Roselli head, which allows to be used as a Ulu, due to the bearded head.



The handle, it can actually be held further back safely.



The Roselli also comes as a short axe, the head is the same, but the handle makes it more of a hatchet.

The handles on both axes were treated using Biofa Hard Oil [1], for duration.

Both heads came razor sharp. The Roselli seemed to be harder than the SFA.

#### At work

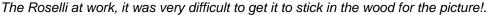
The SFA gets a slightly heavier head, and slightly longer reach. Its is easier to work with two hands with the SFA, but it can be done with the Roselli.

I mainly tried the axes in olive wood and orange wood, but also in Mediterranean pine.

These are two excellent axes.

The SFA gets an excellent penetration, but hardly better surprisingly than the Roselli, in hard wood, marginally better in soft wood. The SFA is very well balanced, it is easy to place the impact. It cuts very straight, and sometimes get stuck, but not very often

The Roselli has somehow the same penetration for a much thicker edge, but only in green wood, sappling size. The handle, though shorter than the SFA's, allows almost the same reach. The Roselli has a tendency to centre itself when cutting a V in a trunk, which is very convenient, and allows less cuts. The birch handle seems to absorb vibrations better than the hickory handle of the SFA.





The Roselli's head is excellent at shaping or cleaning or planning, because of the long obtuse bevel, which can rest on the surface. A domain where the SFA is just much behind, because it does not show any surface that can rest on the material to cut.

The splitting power seems to be the same, though when cutting with the grain (as for splitting), the SFA penetrates deeper (but stops at marginally the same axe width, the handle bit in that case) and gets stuck.there is an advantage on the larger head of the Roselli, which make some logs split with minimum effort.

This said, I suspect a GB SFA user will find the Roselli "bulky" in its manipulation.

The SFA at work, with the same energy and time spent, same result. Note the narrower V.



As the Roselli has a very thick head with the first 2 centimetres almost flat, you can use on side to rest on the wood like you'd do with a chisel. This design of the Roselli allows the axe to be handled and used like an Ulu, or to perform fine cutting tasks surprisingly well. Making a flat surface in a log, using the axe as a plane, carving a bow, or even the inside of a bowl, using it as a knife, or an ulu, or a skinner, are all things you can do really well with the Roselli, and only imagine with the SFA.

The downside, is that when it needs sharpening, it is more painful, as a lot of matter needs removal.

The SFA's main problem for this is I would say the "limbing" head. A full convex or V shaped head would certainly be more efficient for all-round use., but would loose on balance, and efficiency in green wood, etc...

There is a feel that the SFA has more power, and it is marginally true, as the facts did prove to my surprise that the performances are similar. But then, I am talking about cutting a log using multiple blows. On anything that needs to be cut in a single blow, the SFA wins by a good margin. The handle on the Roselli is of a bigger section, and the way it feels while handling it or using it is totally different from th SFA, but at least as efficient, though less conventional. The Roselli can be held from head to foot safely. The strange handle can actually be held at the total extremity, palm of the hand on the bit that is recurved, thus giving the same reach than the SFA. The SFA on it's 50 cm handle, offers 45 cm where the handle cand be held safely. Just the 5 cm at the bottom of the handle, after the recurve are useless.

But the SFA gives a good classical long-term feeling and ballance.

The only real difference I found in chopping is that the Roselli splits the chips apart from the wood, or creates larger cuts, as the head is larger when the SFA makes a thin cut. But the depth of the cut was the same each time I checked it, at different angles from the wood's fibres-.

In softer woods like pine, or green wood, the SFA comes back in performance, showing deeper cuts, but the improve is still marginal. The SFA seems to provide a better bite for limbing a tree than the Roselli. The SFA penetrates the material at the place it bites, and goes straight, when the Roselli can be made to turn with some practice. The Roselli is a bit too light to cut pine bigger than 8 ", when The SFA will probably do a bit more. The performance of the Roselli

and it's large head quickly degrades toward the end of the V, as the V has to be maintained larger than the head. Up to 4-5" diameter, there is no major difference.

The SFA stays the best limbing axe of the two, which is not amazing, as it is part of it's design.

The Roselli does not get dull easily, it would seem that it's edges last 2 to 3 times longer than the SFA before a sharpening is required.

I did some of these tests with a third old Sandvik Swedish axe of the same size, which shows a more straighter profile (no convex) than the GB SFA, and it did perform very well too (it was also tempered harder), and was very versatile, though not as much as the Roselli. My view is that the SFA is slightly too specialized, due to its convex edge bevel-concave bit profile.

#### Conclusion

I think I got the idea of both axes, the SFA is specialized and is close to the best in it's domain, which is Nordic forest work. The Roselli does surprisingly well everywhere. So both axes fill their design expectations.

Let's say that if I needed an axe to fell and limb pine trees and other conifers, I'd take the SFA, but if I wanted an axe that can do that at almost the same level of performance, plus be good at carving, removing bark, as well as do some carpentry, flattening logs, hollowing them, scraping materials, and the like, I'd take the Roselli. I would not be amazed that a hunter could skin an animal with the Roselli. It has also the advantage on compactness and weight.

As survival equipment, forest hiking equipment, bush crafting equipment, part of a back pack, and complement to a puukko, I would choose a Roselli, because it is more compact, a bit lighter in weight, and so much more versatile as a wood working tool, or even general cutting tool. More than that, for the weight close to a hatchet, the Roselli provides the power of a 50 cm axe, something not to be neglected!

The SFA stays a very good nordic small felling / limbing axe.

However the Roselli long axe requires some experience to work best, and I would certainly recommend the Gränsfors Bruks Small Forest Axe to a beginner instead of the Roselli.

#### [update 16/03/2007]

I sold my Roselli 6 month ago. It was good, but of all that really mattered to me in the field, was the power or cutting, for trimming branches, obtaining quickly dead wood of the size I need, and that exactly where it is not the best at. I still have my SFA, I still find it a bit too heavy for normal carry, but then a more conventional, and lighter hatchet can do.

[1] linseed oil and rosin