

# Dispelling the Myths of the American Scythe

## An Open Response to Botan Anderson's "A Tale of Two Scythes"

Note: Since the authoring of this document, Botan generously made the invitation to assist in the co-authoring of an improved "A Tale of Two Scythes 2.0", which will replace the outdated original. We're both very excited about the endeavor, and this document remains here for historical purposes only.

### Preface: What is this all about, anyway?

Our friend, Botan Anderson of [One Scythe Revolution](#) has done much excellent work to popularize and promote the use of the scythe in the United States through his various writings, workshops, and videos, and has provided the great service of making available a reliable USA-based source of quality scythes and accessories of the continental European style. However, the article entitled "A Tale of Two Scythes" comparing the Austrian and American patterns contains many common misconceptions regarding the American pattern scythe and, in our eyes, draws many unfair and unfounded conclusions about the venerable tool. While this is not a deliberate misrepresentation, it conveniently collects and presents these false conclusions in one high-profile and oft-cited location. The purpose of this document is to tackle some of these myths and bring to light the true nature of what the American scythe is really all about.

### Blade Design: Austrian Vs. American

While the point is made that the Austrian-pattern blade is of made through a more sophisticated metalworking process and is of more complex geometry, nothing could be farther from the truth. American blades have extremely complex geometries that are arguably as or even more difficult to properly forge in good form, and this is demonstrated in the difficulty the Austrians have in producing American pattern blades that are true to form. The American pattern scythe is curved in all three planes like the Austrian pattern, but in an entirely different manner. These curves are:

- 1) The obvious arc of the blade in PROFILE.
- 2) The arch or trough created by the RIB, and any bead(s) if present. These stiffen the blade, eliminating "chatter" when mowing heavy growth.
- 3) The CROWN-- a gentle upward curvature (resembling a smile) of the blade as it approaches the tip. Similar to what, in Austrian pattern terminology would be called the "rocker". Most blades will have this forged in, but some examples require that the user introduce it through gentle graduated bending in a vise if it is desired (it is not always!)

If you lay the blade flat on a table, your eyes will be deceived. While the blade will lay fairly flat in stock configuration, this is partly due to the complex balance of the blade, and the edge will likely be nearly touching the tabletop. If you were to hold a well-balanced long American blade on your fingertip at its balance point (with the edge covered or blunted for safety, of course) it will commonly attempt to rotate on its edge to that it hangs downward, often with the tang pointing to between the 4 and 7 o'clock position. This aids in the overall balance of the scythe when mounted, providing a counter-rotational force against the natural balance of the end-weighted design of the tool. The common balance point on shorter/broader weed and bush blades is approximately  $\frac{3}{4}$ " behind the edge and about 6" from the heel.

The in-line orientation of the tang is two-fold: first and foremost, the curvature of the American snath eliminates the necessity for large tang angles in most cases, and secondly it was intended for the user to heat the tang and bend it to the desired angle themselves or with the help of a local metalworker. The intended uses of the blade will determine the most appropriate angle for the blade's lay, and in many common field conditions an upward lay is actually desirable. The belly of the Austrian style blade produces this same effect, though it is often overlooked. The arc of the belly causes an upward-hooking orientation of the edge not at all dissimilar from the commonly upward lay of the American pattern. The thick and tapered style of the American tang provides both great strength as well as massively increased range of adjustability of the blade's hang to match the preference and biometrics of the user.

With regards to weight, all manner of blades were made historically, and while always of heavier build than the Austrian sort, it is not wasted mass. American manufacturers were fully capable of producing thin and light blades. Most American grain cradle blades measure 48" from heel to toe (tang not included) and spanning 2 &  $\frac{1}{2}$ " in width, and yet weighed under 3lbs, meaning that each linear inch weighed less than a single ounce. While heavier blades may have sometimes been forged thick through lack of skill, it was much more common for it to be through deliberate design to produce a blade to meet challenging mowing conditions. A heavier blade carries more momentum through the cut, allowing for deep, broad swaths to be cut even in very heavy growth without becoming bogged down. Choked cuts with a light blade require more energy and effort to finish out than a smooth swath cut with a heavier blade. Match the blade to the conditions, heavy or light, and energy is saved

rather than squandered.

The American scythe is swung in a manner more similar to that of a pendulum, with the motion of the scythe being balanced by the motion of the body. If simply trying to muscle the blade through the stroke one will quickly become tired--indeed, many remember their fathers or grandfathers handing them a scythe to "teach them a lesson" and unfortunately many did not learn the lesson that they were intended to. The lesson that mowing with the American scythe tries to teach is that it is far more important to use brain than brawn. Balance, finesse, and intelligence cut far more hay than brute strength, even when directing a powerful tool. As a saw should be allowed to do the work, so too should the American scythe. Set the pendulum in motion, keep it in balance, and give the little push needed to keep it going, and the work becomes light and pleasant. When you get poor results the first question should be "why?" and the tool should be listened to carefully so it may tell you how it wants to be used. To attempt to use an American scythe like it is an Austrian is like attempting to neck-rein an English riding horse. It simply does not respond to those commands, as it is of an entirely different discipline. The end tasks may be the same or similar, but they are accomplished through different means.

### Snath Design: Austrian vs. American Style

The American pattern snath, while inherently of heavier design than the Austrian type, is by no means inferior. The curves assist in proper presentation of the blade and give ergonomic clearance for the snath to pivot around the body while being able to be held close and relaxed, minimizing strain on the body during extended use. The nibs, or side handles, may be moved and rotated in a wide range of positions to suit the preferences and dimensions of the user in a very precise manner--a key feature since a small problem in the tuning of any scythe (regardless of pattern) can mean the difference between mowing being euphoric vs. tortuous. The only advantage offered by a straight snath is that it is cheaper and easier to manufacture, which is why so many European/Austrian snaths are--you guessed it--curved!

The snath itself is end-heavy to facilitate the pendulous action referred to prior, but is also to provide a sufficient surface for the more developed hardware of the American pattern. While many styles of mounting hardware existed historically, the majority of them are both more secure and more adjustable by far than the traditional Austrian type. That being said, all manner of individuals made use of scythes back in their heyday, and with all manner of skill (or lack thereof) and so many more snaths were produced with a surplus of wood on them than ones of properly slim dimension--the reasoning being that if a thinner one is desired it is trivial to shave it down a bit. Some of the finest snaths were of excellent stock

dimension, but this was because they were designed for the skilled mower rather than the larger scythe-buying market. Then, as today, that sort of individual was of a rarer class.

Just as blades came in the grass, weed, and bush varieties (and less common subclasses like bramble and thistle-down) so, too, did snaths. Heavy bush snaths were used for the roughest of work, often by railroad crews for maintaining their rights of way or by common farmers for eliminating thick, hedge-like, woody growth. "Grass snaths" were a more broad category, and came in a range of thicknesses and ruggedness of hardware, with the heavier grass snaths being best used for fairly dense or resistant weedy growth, but the slimmer ones being quite light and elegant in dimensions and form.

The American design does NOT try to fudge the laws of geometry, but should one attempt to use it with the same stroke as an Austrian scythe they would be met with poor results--simply because they would be trying to use the tool the wrong way. There are a number of reasons why the complaints made with regard to the American pattern are fundamentally flawed:

1) The stroke of an American scythe is generated primarily from the arms rather than a twisting action of the torso (though the torso is still used.) Such a stroke will want to create a tilted arc rather than one that is in-line with the ground, and the crown of the blade directly counters this. A subtle lateral rocking or scooping action is used through the cut, which causes the blade to have the toe presented to the target and the heel lifted at the start of the cut, the heel and toe equidistant from the ground at the middle of the cut (with the middle region of the blade doing the cutting) and the heel of the blade presented at the end of the cut with the toe lifted. This maintains the edge at the proper presentation to the target at all points along the length of the stroke. See the rocker of an Austrian blade and ask the same question.

2) The targets being cut are incredibly thin, reducing the effects of a blade being out of flawless alignment. So long as the edge catches the cut will be made. If an uncrowned blade were used with an un-angled tang a less smooth stubble will be left, but the vegetation shall still be cut. When mowing wind-flattened tall grasses just such an arrangement is actually ideal, since the blade is used to reach beneath the bent stalks and lift them into the edge rather than cutting a broad swath as one would do in more ideal mowing conditions. Unless mowing a lawn, a perfectly uniform stubble is not necessary to accomplish the tasks of most scythe users.

3) An upward orientation of the edge is more desirable in heavy growth, as it will cut across the grain. Any experienced woodsman will tell you that it is folly to attempt striking square

across the grain of a tree with an axe when felling; it is much more effective to make your cuts at an angle to cut tangentially along the grain of growth. So, too, is it with scythes and tough reedy grasses. While the more upward the lay of the blade the less close-cropped a swath shall be left, the more aligned it will be with the grain of growth. This also causes tension in the fibers of the plants, as it holds them taught against their anchored root structure. Much like cutting a rubber band, it is MUCH easier to do so when it is under tension. Again, this is a reason why in almost all circumstances any scythe blade (regardless of pattern) will have at least a slight upward orientation to the cutting edge. It is worth noting that the heavier the profile curvature of the blade or the greater its width, the lower the lay of the blade should commonly be. Nearly straight and/or narrow blades can be appropriate at more upward angles since there will be less drastic variations in edge height during the natural stroke.

4) It is a logical fallacy to fault the entire pattern of scythe simply because many individuals unwittingly do not hone it finely enough. It is equally challenging to mow with a dull Austrian scythe, and if anything exposes it to greater risk of tearing the thin, soft, tensioned blade like an inverted orange peel if a hidden target is accidentally struck due to the greater force required to get a dull blade to cut. The edge angle on American blades is typically a mere  $8^{\circ}$  or  $9^{\circ}$  per side. By comparison, a keen knife is commonly  $20^{\circ}$  per side (though they may be brought thinner) and the thicker region--compared to the Austrian type--behind the bevel is largely inconsequential in its effect on cutting performance due to the diminutive depth of cut required to crisply sever grasses and weeds. Its purpose is both for rigidity and mass, and as the web (the thin span of the blade, like the web of your thumb) is worn through years it has no effect on the lay of the blade, so once the blade has been tuned to its snath and user it shall remain in that alignment indefinitely. With the Austrian style this angle of presentation is liable to change as the edge wears its way back through the dished form of the blade, and eventually the blade will need to be readjusted for proper lay either through bending of the tang or the use of wooden wedges.

## Sharpening: American vs. Austrian Style

While Austria is now the last country producing American pattern scythe blades in significant volume, Sweden was the predominant manufacturer of imported American pattern blades, and for good reason. Their native style of scythe blades were more similar in design and construction to American blades than those of the Austrian style, and they were familiar with the extremely challenging process of laminating scythe blades--a technique

commonly used by the best manufacturers in America. A hard, high-carbon steel core was clad in a sandwich of low-carbon steel for support during accidental impacts, and a medium-carbon spring steel used for the spine. The result was extremely tough blades that could hold a keen edge all day without having to maintain them with more than a whet stone or a rifle hone, as compared to the Austrian type which may require peening before the day's mowing is over, even in circumstances when the edge has not been impacted, in addition to the use of a whet stone.

This video shows a good deal of the manufacturing process involved in forging this style of scythe, though it is for the slightly less complex English pattern blade. Observe that water power drives the entire operation--this was standard for the scythe industry in general, and most American scythe manufacturers (including the famous Oakland, Maine companies) relied principally on water wheels for their manufacturing processes.

<http://www.youtube.com/watch?v=AqV3jtkQSe4>

Once the edge of an American scythe has been rounded or thickened through repeated field sharpening it is reground thin. While the bevel produced will usually appear to be wider on the top than on the bottom, the edge itself is kept centered to maintain the hard core steel as the edge rather than the softer cladding. The American pattern can be honed just as sharp and thin as the Austrian type, and if the blade is of good quality it shall hold that edge longer while being more resistant to damage. Traditional grinding on a water-cooled wheel produced a hollow grind akin to that found on a straight razor--incredibly thin, keen, and able to approach the target at shallow angles without glancing. Water cooled grinders share something in common with scythes: they may not be so commonplace as they once were, but they are still easily found thanks to the internet. Grizzly, Tormek, and Jet are some common makers to consider. Our preferred model is the Grizzly No. G1036 "Viking Grinder" since it gives the greatest clearance for comfortably grinding long blades.

With regard to many American blades being found with "the tip snapped off" I can say that I have never seen the tip literally snapped off on any American blade. I have seen many that have been shortened, but in almost every instance it has been because the toe of the blade had either become catastrophically damaged from abuse or had been sharpened away to the point that the form was no longer suitable and the damaged or malformed region was then cut or ground away to restore a more functional profile to the tool (if perhaps an ugly one compared to a whole blade.) I have seen many more blades bent into all manner of awful shapes resembling the ritualistic "killing" of a viking's sword upon his death and burial--the blades twisted into iron pretzels or zig-zags-- but a surprising number of these can be bent back true without permanent damage. In cases of severe bends, hairline cracks

may form, but compare this to the number of vintage Austrian pattern blades found on this continent with their edges torn like a child's construction paper project does little to reinforce the idea that the American pattern was in any way delicate by comparison. The scythe is a tool that requires finesse, no matter the kind, and abuse will destroy any blade or damage any snath.

Rather than comparing the American scythe to a discount store one-speed bicycle and the Austrian pattern to a top-of-the-line 18-speed, I deem it much more appropriate to draw an analogy between mountain bikes and road bikes. There are both poor and excellent examples of each style, and while a mountain bike will almost always be heavier than a road bike, it is because of their different intended range of use. If racing on paved roads the road bike is the certain winner given cyclists of equal fitness and skill, but the second that you have to travel on grass or dirt, or in other less than ideal conditions the mountain bike pulls ahead. In similar fashion the Austrian scythe is the fastest, easiest, and best method for the cutting of lighter growth in more well-groomed fields (like those found in much of continental Europe) while the American pattern is much better suited to denser or heavier growth in more challenging and variegated mowing conditions, where bumps and valleys abound and hidden obstacles are liable to strike (like those found in much of the United States.) Each can do much of the work of the other, but is specialized more to one end of the performance spectrum.

The Austrian style of scythe could be found in most of the larger hardware catalogs throughout the golden age of the scythe in America, to such an extent that the American "Sta-Tite" Snath Co. even made a snath intended for use with Austrian blades, but the selection was always much smaller than that stocked for the American variety and simple economics should tell us why the American pattern hangs in nearly every old barn in the nation--most American farmers found it a more suitable tool for their mowing conditions.

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