

# Bevel Angles

By Lyndal Anthony

What is the best bevel angle?

When you hear that XX is the best angle, be skeptical.

Consider this:

**Think of an axe**

**Have you ever tried to cut down a tree  
with a splitting maul?**

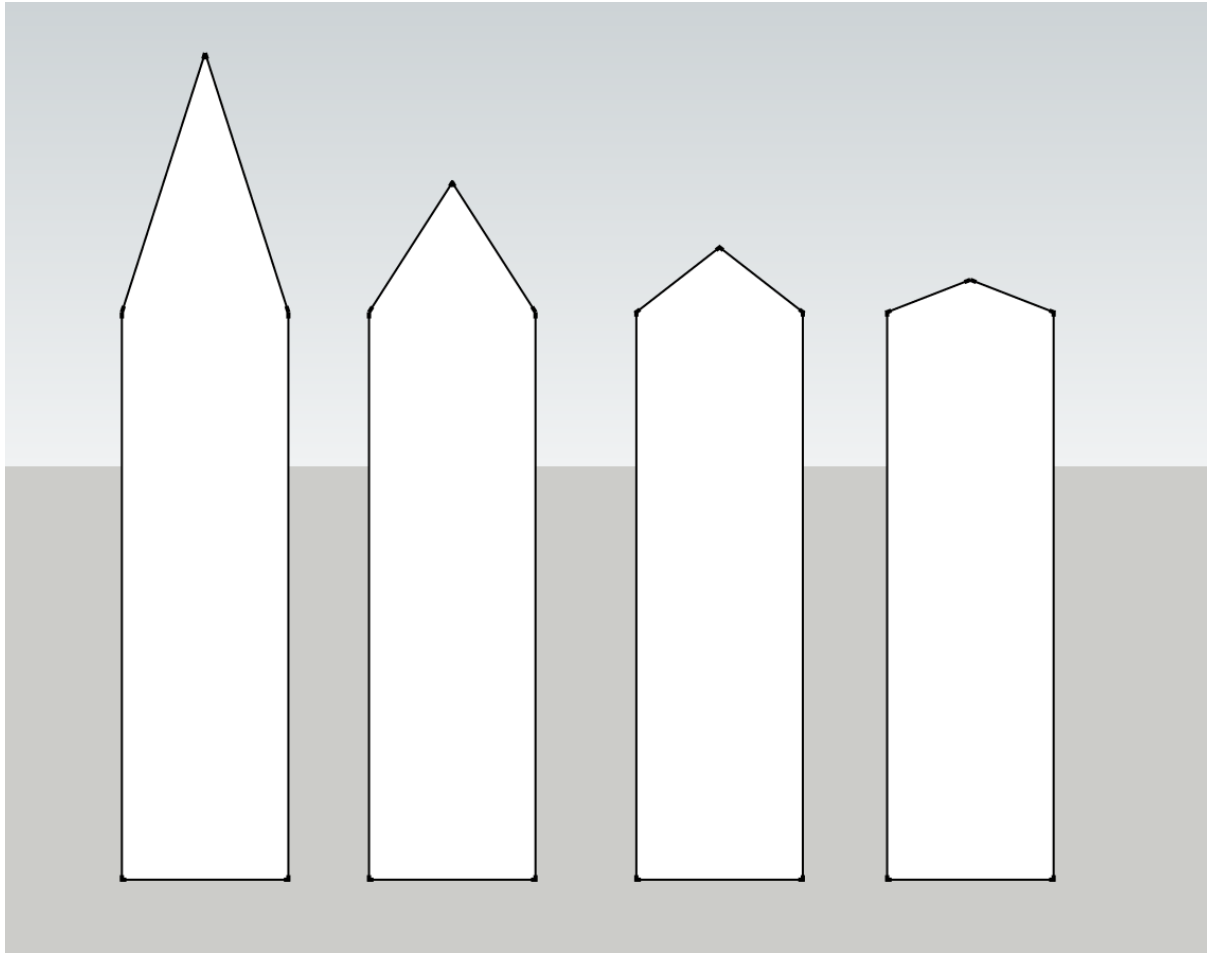
**It may be razor sharp, but the angle  
prevents it from cutting; instead it wants  
to split wood.**

The bevel angle is only a compromise

A thin bevel angle cuts more aggressively but the edge dulls more quickly

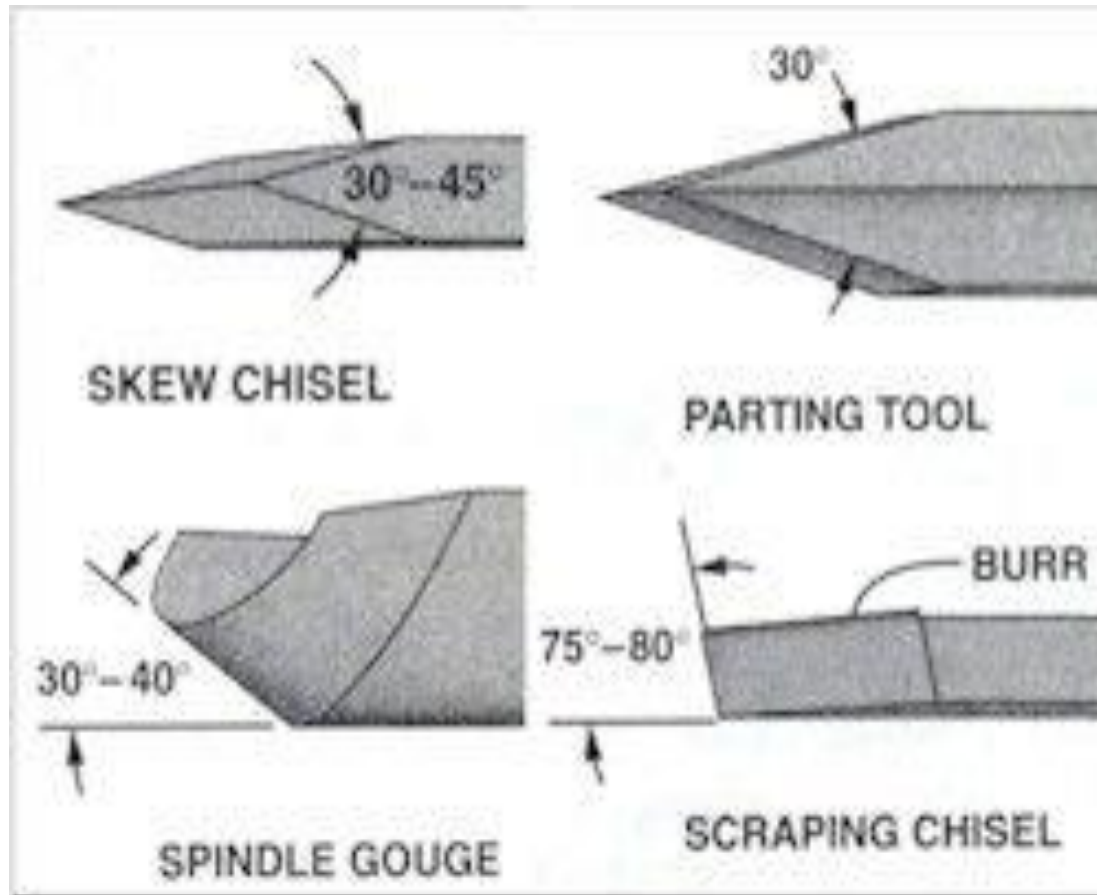
An acute doesn't follow the inside curve as well as a more blunt angle

Look at these angles

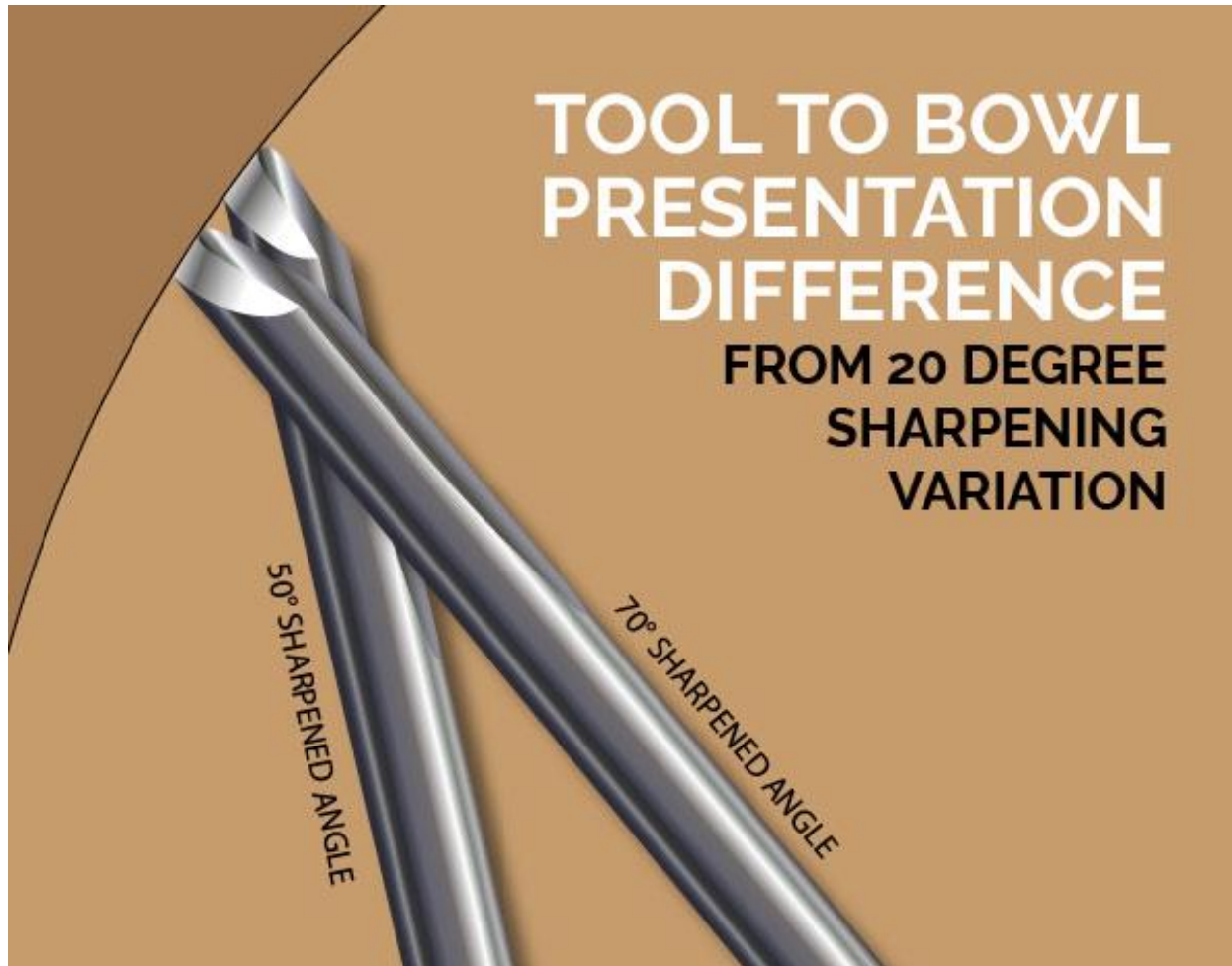


The one on the left cuts nicely, but as the angle becomes more blunt, even though it may be sharp, it does not want to cut.

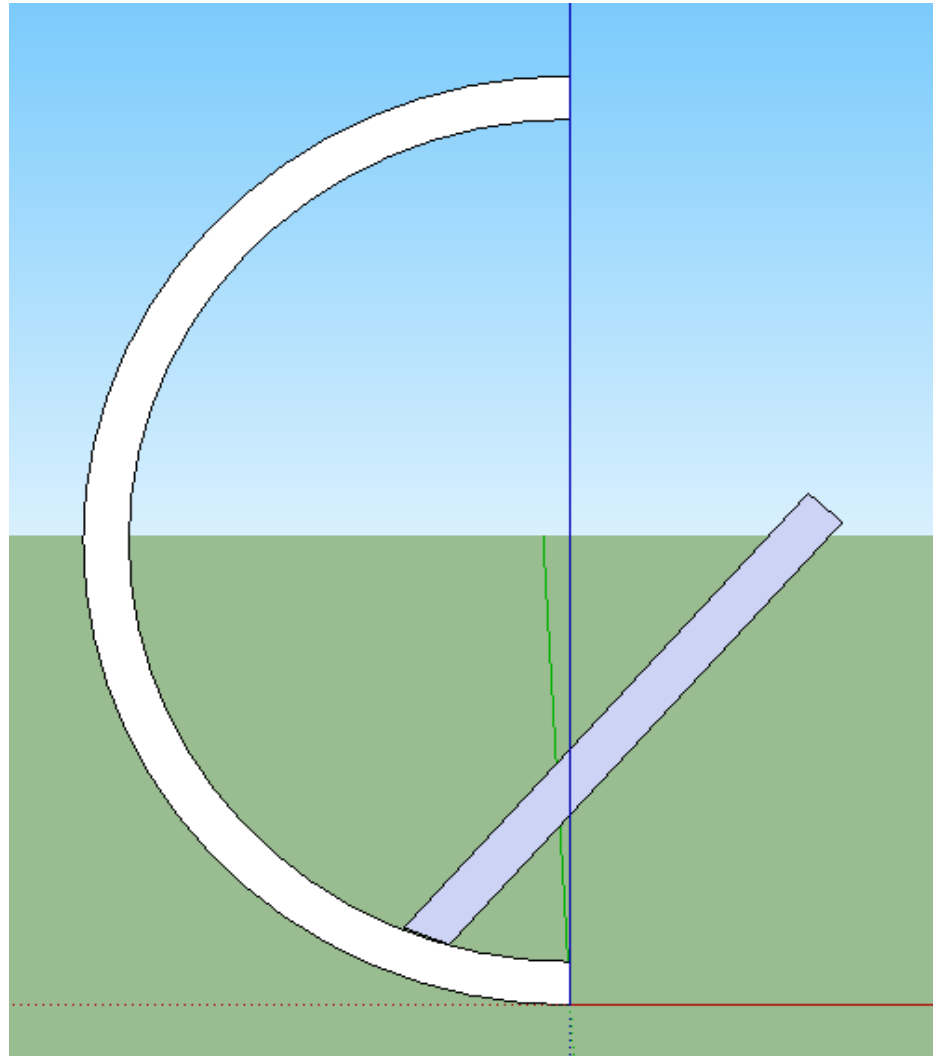
So why are there different angles between spindle angles, scrapers and bowl gouges?



First, there is the difference between the spindle and bowl gouges

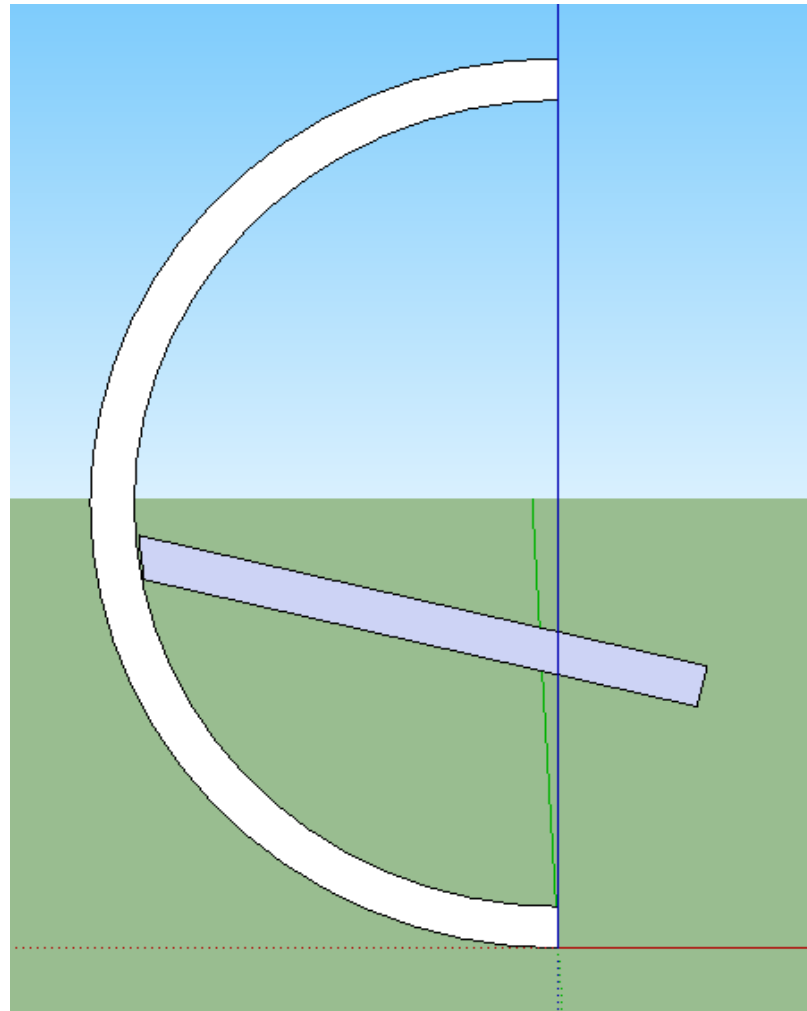


# Bowl gouge with 40° Nose angle

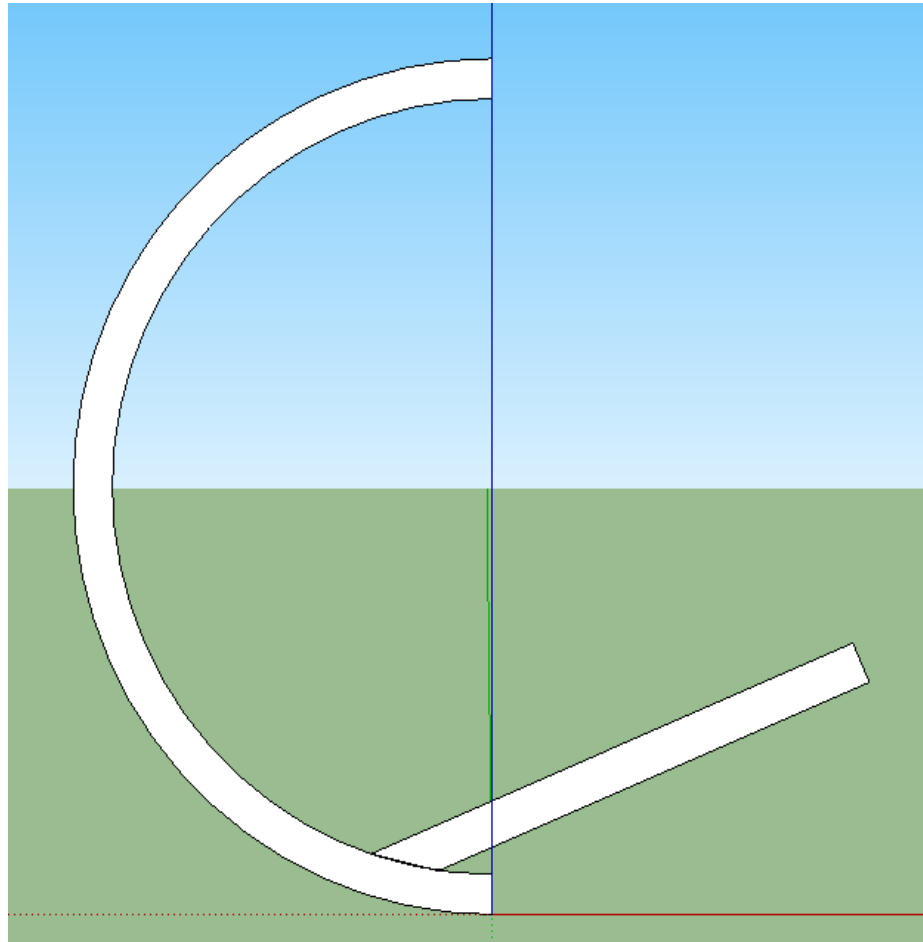




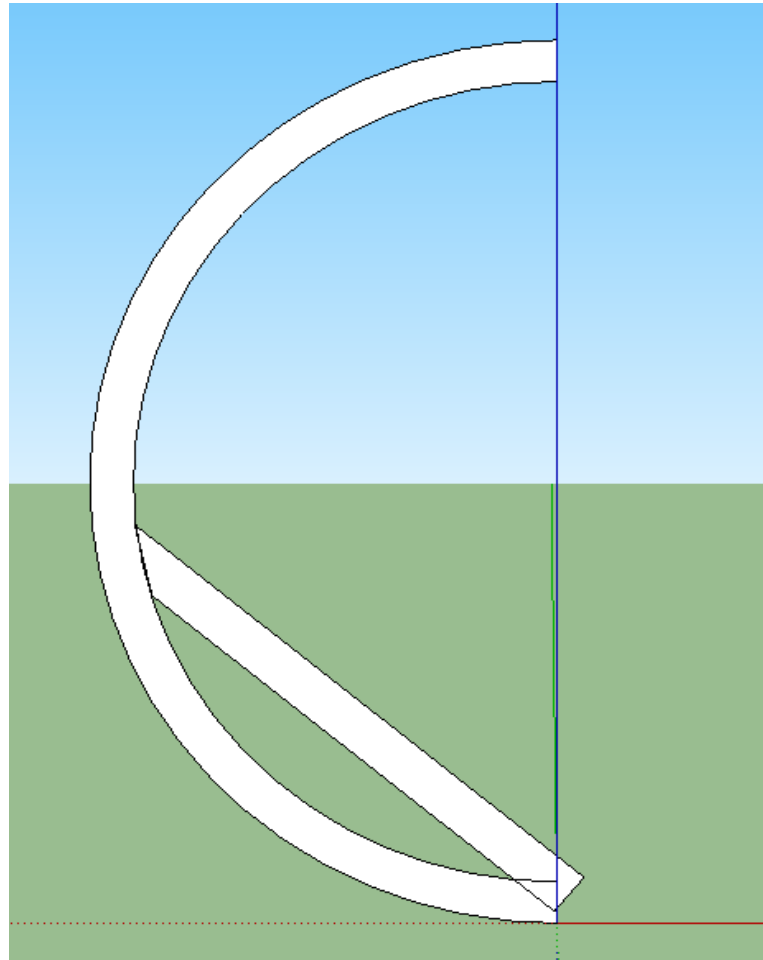
Notice how the shaft of the tool clears the side of the bowl and yet the bevel is still riding the bottom of the bowl



Now a tool with a  $30^\circ$  nose angle



Now the tool is almost to the bottom of the bowl and is rubbing the side of the bowl. It can not complete the cut without the bevel rubbing



The more acute the angle is, the easier it slices through wood fibers, but it also cuts more aggressively.

The more blunt the angle the less the tool WANTS to cut, just like trying to cut down a tree with a splitting maul.

The more acute angle cuts the wood fibers more cleanly but the tool cuts more aggressively. Just compare how a bowl gouge cuts in comparison to a bowl gouge with a more blunt bevel angle.

To conclude, a razor blade will slice wood fibers more cleanly, but that acute angle won't work on the inside radius of a bowl, so the angle has to be more blunt in order to follow the inside radius

So there is no such thing as a  
“**Best**” bevel angle. It is only what  
you are used to and the  
predictability of that tool/cut to  
you