

A GUIDE TO THE ARBRASSON

The Arbrasson is a simple wooden instrument, consisting of a block of wood with notches cut upon it, which, when rubbed, produced a sequence of birdlike chirps.

The Arbrasson was invented in 1996 by José Le Piez, a magician and sculptor based in Bordeaux, France. By carving notches into polished logs, he crafts wild polyphonic sculptures that resonate when rubbed. Le Piez discovered the concept accidentally while building furniture. Over time, he learned to control it, and developed an entire sculptural vocabulary for the instrument.

In summer 2023, I met Le Piez, and I learned a lot about how these instruments work. I subsequently began to make my own arbrassons. I signed an oath that I would not sell these instruments for 10 years, though I am permitted to share instruments through workshops.

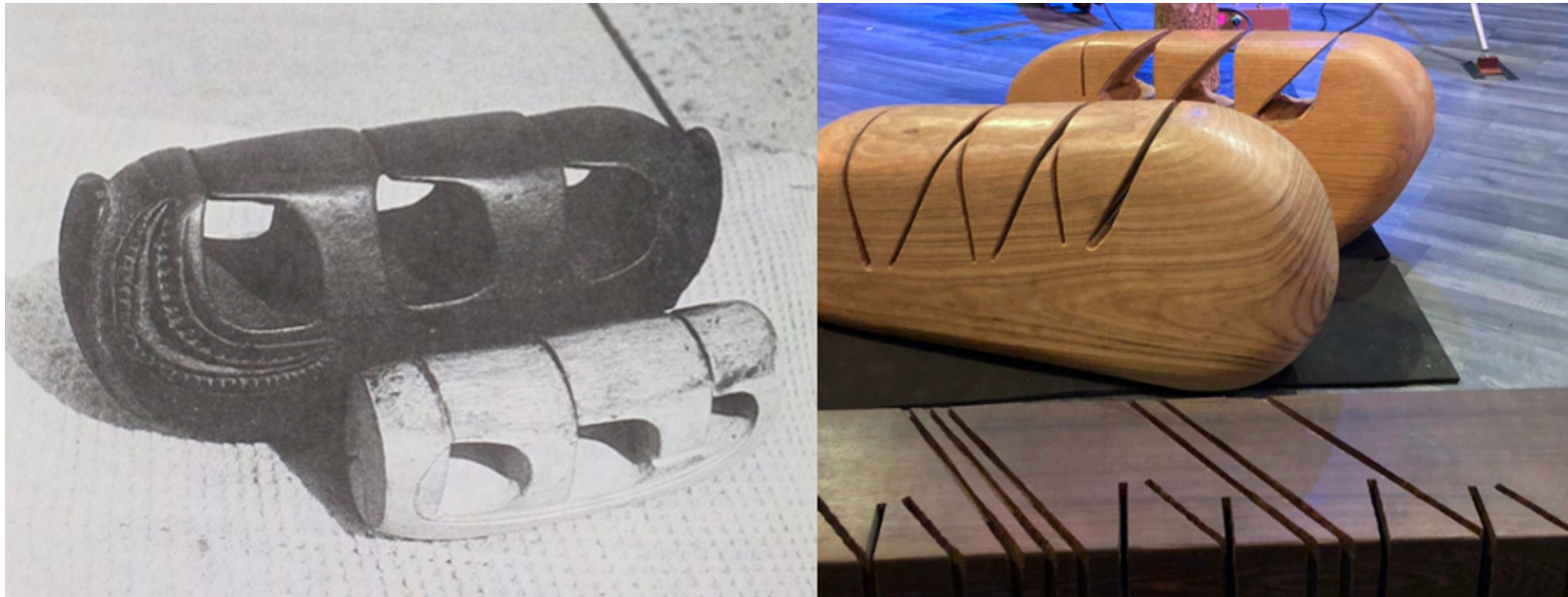


Your author with le Piez, 2024



Arbrasson by Jose Le Piez™

ARBRASSON HISTORY LESSON



The Arbrasson has historical precedent.

Hailing from New Ireland, the Livika is a carved log consisting of three “tongues” that is rubbed by moistened palms to produce a piercing, loud cry. Its name refers to birdcalls, and it was played at Malagan funeral ceremonies. Curator Eric Kjellgren writes, the Livika is “both a first of its type and a revolutionary design”. Unlike the jaw harp, which is found all around the world, the Livika is found only in New Ireland. Today the Livika is considered “extinguished” by the field: there are no practicing indigenous players, and only about 50 known instruments exist in museums around the world. Very few recordings exist of the Livika played in its original context.

When Le Piez invented the Arbrasson, he did not know the Livika, and shortly after discovering his concept, he presented his findings to ethnomusicologists, who shared with him the concept of the Livika and its context in New Ireland culture, which has informed his subsequent design philosophies and experiments.

pic Daniel Fishkin™



pic Jose Le Piez™

ARBRASSON GUIDE



Some example shapes to inspire you!

try lots of designs and see what works.



pic Daniel Fishkin™

DFICTION 2024

MATERIALS & TOOLS LIST

The Arbrasson is just made from wood. You can use any piece of wood you find. But if you have some really sentimental wood, like a trunk of tree from your parents' house, you can use that. Anything will work!

Finish:

Some sort of lacquer based finish is needed to create a barrier on the wood, otherwise. I like “tried and true” varnish oil because it has no petroleum additives and is safe to apply without ventilation. It goes on thick so use sparingly.

<https://www.triedandtruewoodfinish.com/products/varnish-oil/>



You can of course, use any spray lacquer you have! You could also use spraypaint! if you paint it, it's a good idea to seal it after, with lacquer.

Rosin:

I like this liquid rosin. (<https://www.amazon.com/Old-Master-Liquid-Spray-Rosin/dp/B07VS4WBT6>), But you can make your own liquid rosin simply by dissolving cake rosin in isopropyl alcohol:

<http://www.hurdy-gurdy.org.uk/slippy,sticky.html>

I also use Neutrogena Concentrated Hand Cream (Norwegian Formula), a glycerin based product. Some combination of these slippy/sticky materials is important to create the bowing surface.





Tools: (here is an absolute minimal list!)

Saw: You can totally use any saw you have. I recommend two approaches, the electric and the acoustic. A bandsaw is useful for moving quickly, and a handsaw is useful for fine-tuning each note.

Hand plane: a sharp handplane is magical for creating a buffed, shiny surface that accepts varnish readily. For curved shapes, you can also sand through the grits to 600 grit, but in this guide, focusing on hand tools, we'll just use a handplane.

Chamfer plane: I use a chamfer plane but you can also just use a hand plane to make what Krenov called “friendly edges”.

Bevel Guide: useful for creating accurate angles, but not required. You can use the “songbook” at the end of this guide.

Step by step guide!

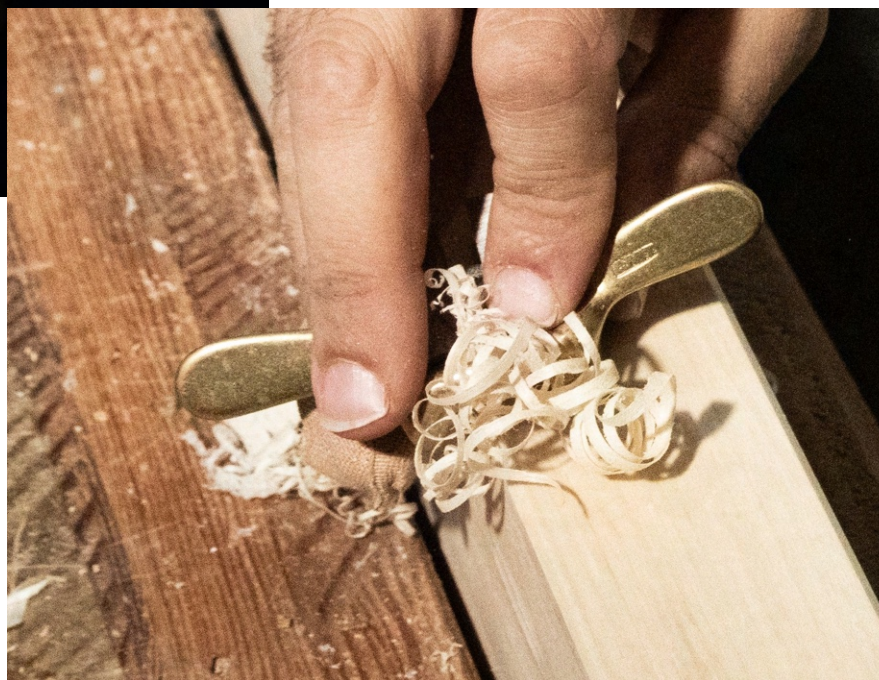
Now we'll begin to make an arbrasson. In this guide we're just using a poplar 2x6 from the lumber yard, and we're keeping the shape simple for demonstration purposes, and also to represent "the monolith" from Kubrick's 2001 in its modernist terror.

Step 1: Begin by planing down one side of the wooden blank. Your hand plane should be sharp, and tune it so you get wispy shavings, not big thick curls. If you don't have a handplane, or your hand plane is a paperweight, okay, you can also replace this step with sanding. This step creates a buffed, smooth, shiny surface that accepts varnish and rosin easily.



Step 2:

Chamfer the sides. I do this step to make a soft edge for playing and preventing splinters.



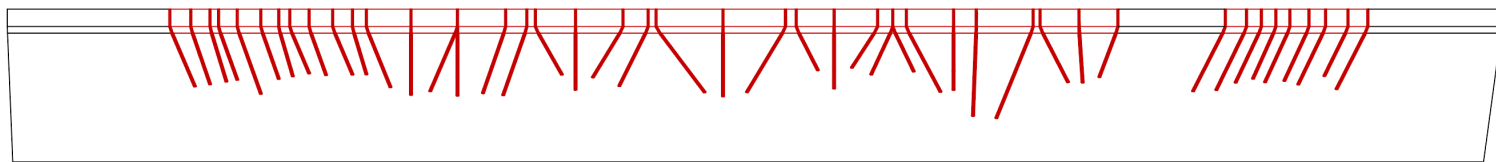
Step 3:

Draw your template.

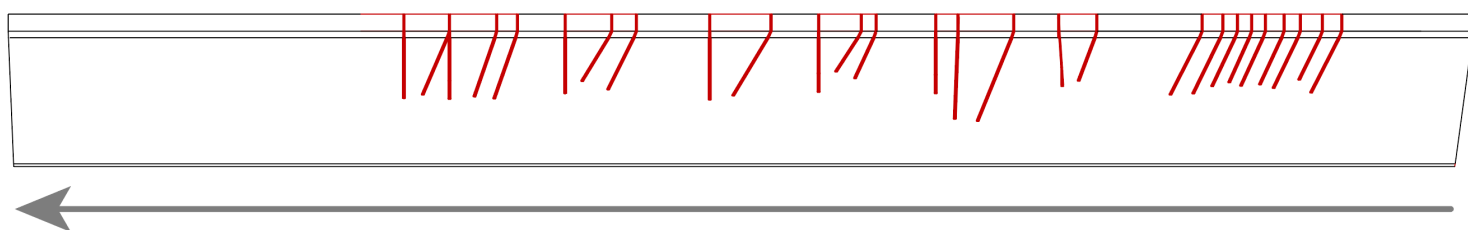
Now your surface for making sound is ready so you need to begin to draw on the notes of your arbrasson. You can flip to the end of this guide for specific templates to get you started / guarantee you get some “working notes”. But you can really do any patterns, as long as you understand the principles at play.



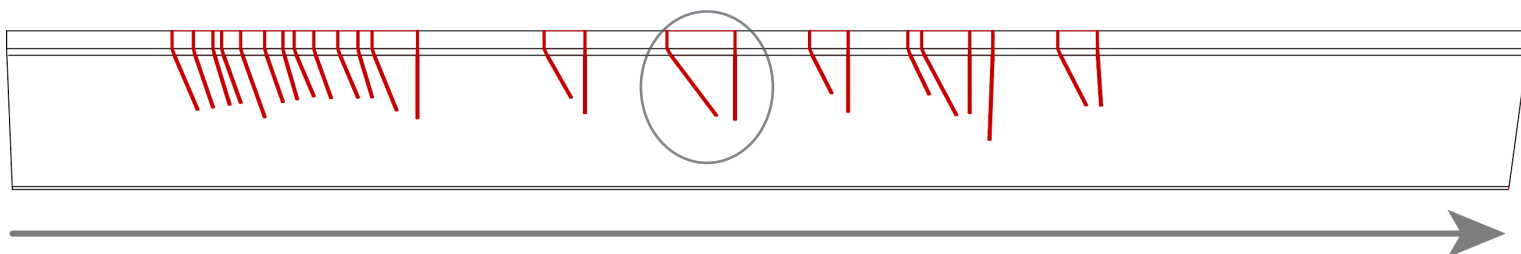
Tuning Interlude:



So let's talk about how notes work on the arbrasson. Take the instrument above, it makes different patterns depending on the **direction** that you rub it.

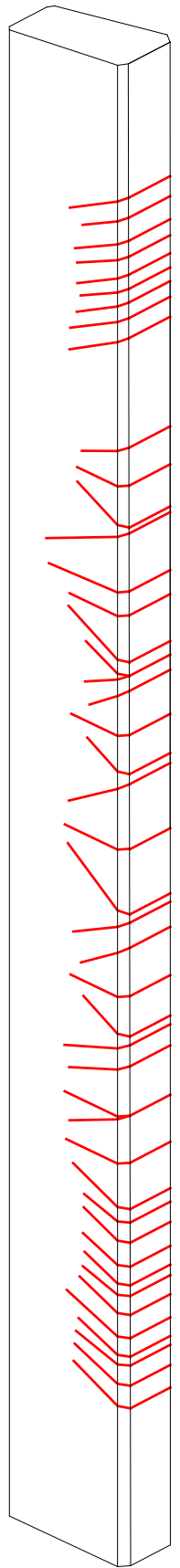


Rubbing in the direction of the leftward arrow, only the pictures notes resonate—the sounding key leans **into** the force of motion.



And rubbing in the opposite direction resonates only the corresponding keys. By thinking about the negative space of the Arbrasson, it's even easier to visual the “note”, aka the sounding element, around which I've put a circle. Don't make the critical mistake of misunderstanding the part that actually makes sound—the little quill that vibrates when set into motion!

So when you're drawing notes, you have to think about each cut as defining a little “reed” that will “blow” in the “wind” when you rub the instrument.



Step 4: Cutting your notes:

Finally it's time to cut the notes!

So you can do this on the bandsaw to make things easier, but there's no reason you can't do this part all with a handsaw! Cut right through the pencil line. It doesn't have to be precise and you will be adjusting it in the later steps.

Remember, cut slowly!

A few tips for bandsawing:

depending on how your bandsaw is set up, its normal for the blade to drift, so cutting straight lines on thick material can be challenging. cut slowly!

If you decide to cut a second time on a particular note, to get notes deeper with the bandsaw, better you insert the blade while stationary. that way, you will preserve your carefully polished surface!



Step 5: playing and tuning the kerfs

Now you've established the basic song of your Arbrasson! You should be able to pluck each tine carefully and hear its tuning. Put a little hand cream on and rub it in vigorously. Try rosinning the tines of your Arbrasson.

Then rub up and down the instrument to see if you can get sound. If there is sawdust everywhere, you will be defeated. So don't be afraid to reapply rosin/glycerin. Or you can also use water, which will create a friction situation (like water on wineglass) in tandem with the glycerin cream.



This part is not an exact science, and will also depend on thickness and species of the wood. A sprightly timber like pine or spruce (or catalpa or pawlonia) might sing right away!

So, now you've heard the scale you've cut. Maybe it's not making sound, or maybe you want to adjust the notes. Let's explain how.



Use a handsaw to adjust the kerfs.

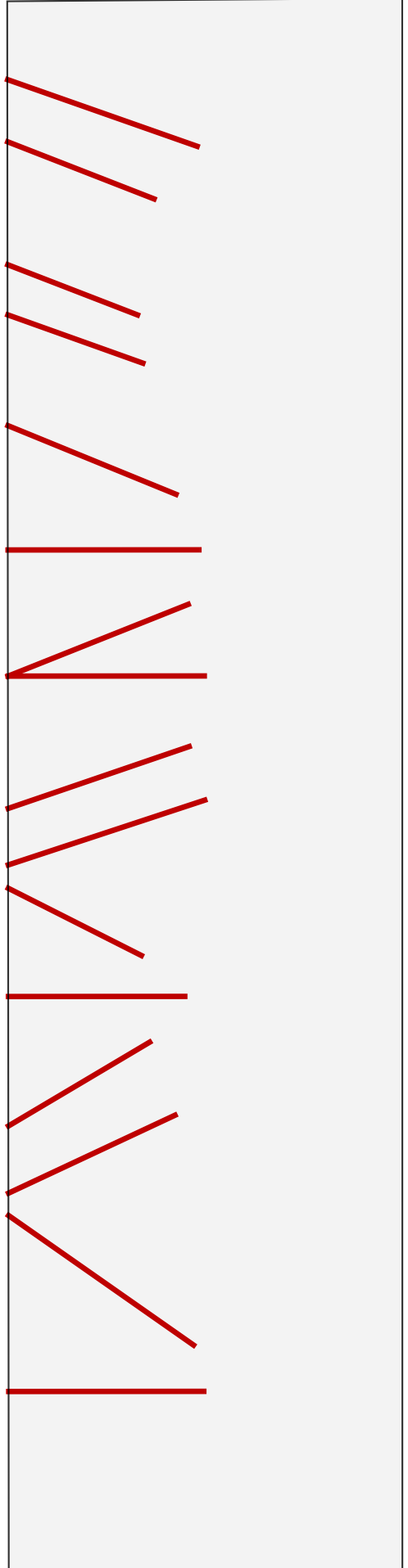
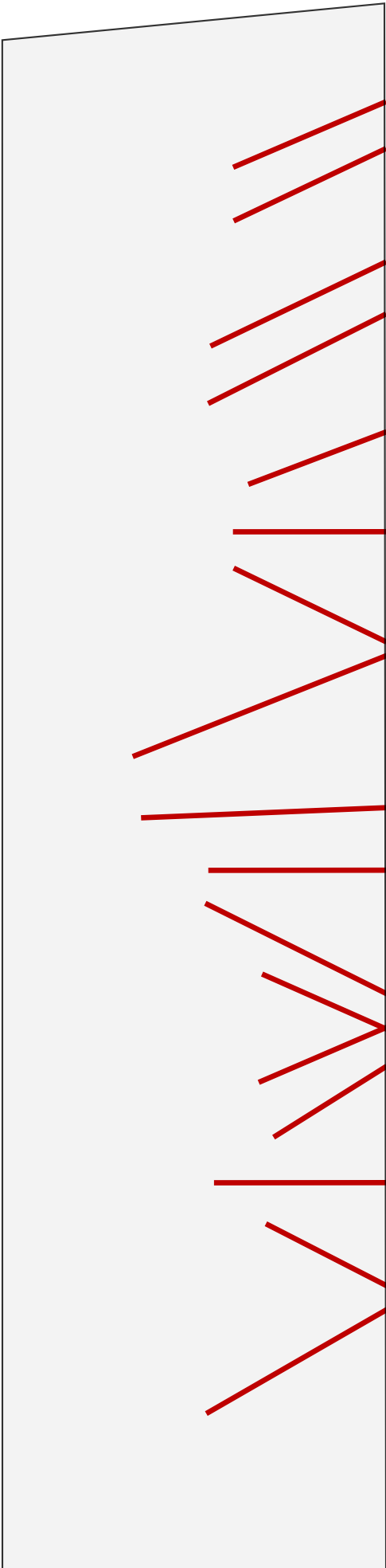
The deeper you cut, the lower the note goes.

But obviously, if you cut too deep, and the key will crack right off, so use caution and stop to listen to your tuning methodically.

After repeated applications of hand cream and rosin, the notes should resonate a little more easily.

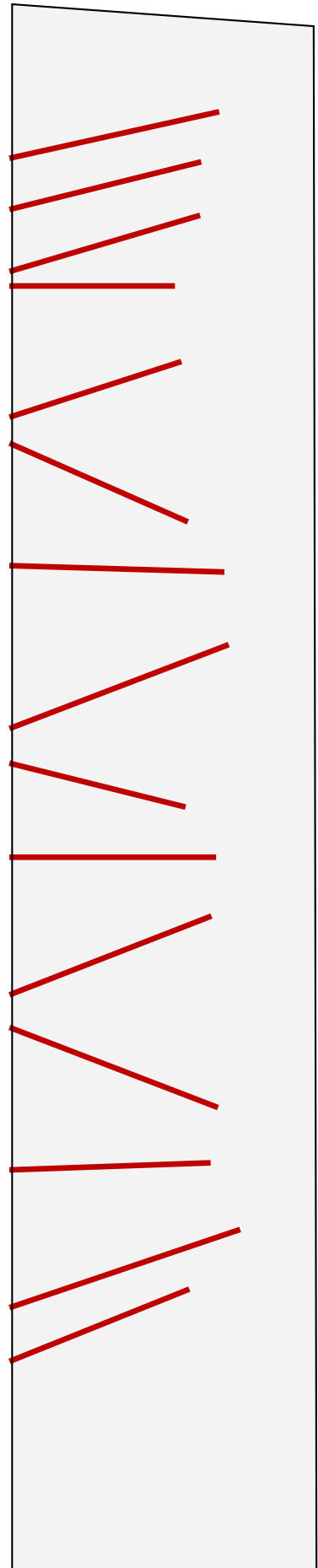
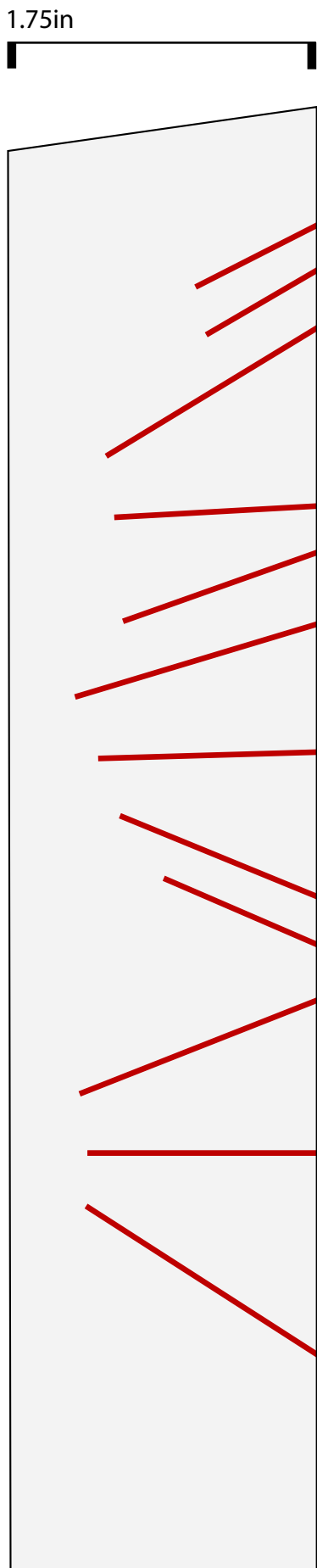
The final sound will improve with varnish.





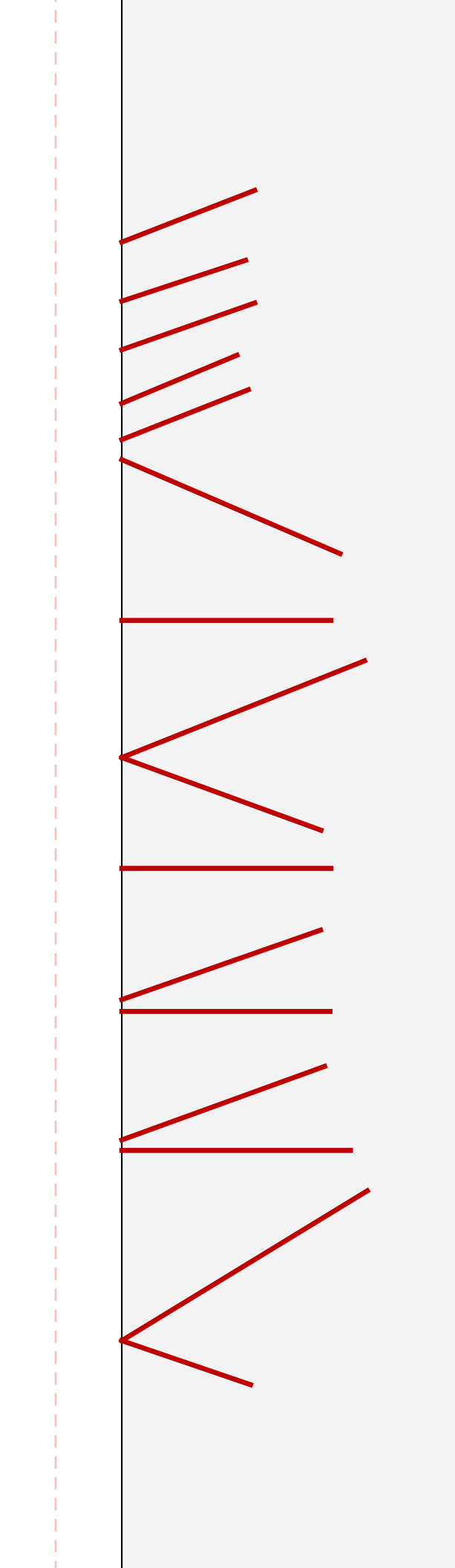
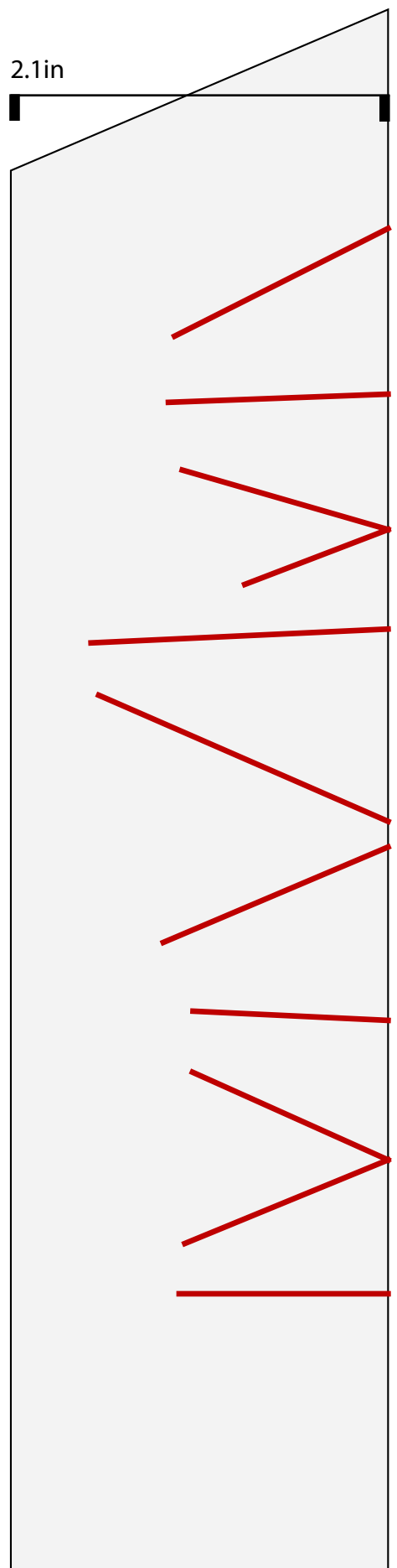
Arbrasson Cutting Template 2

1 in

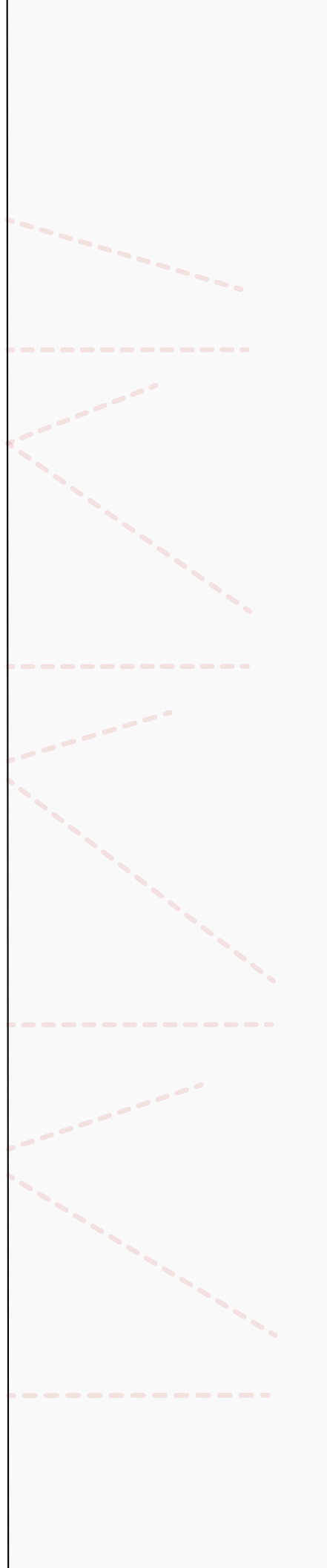
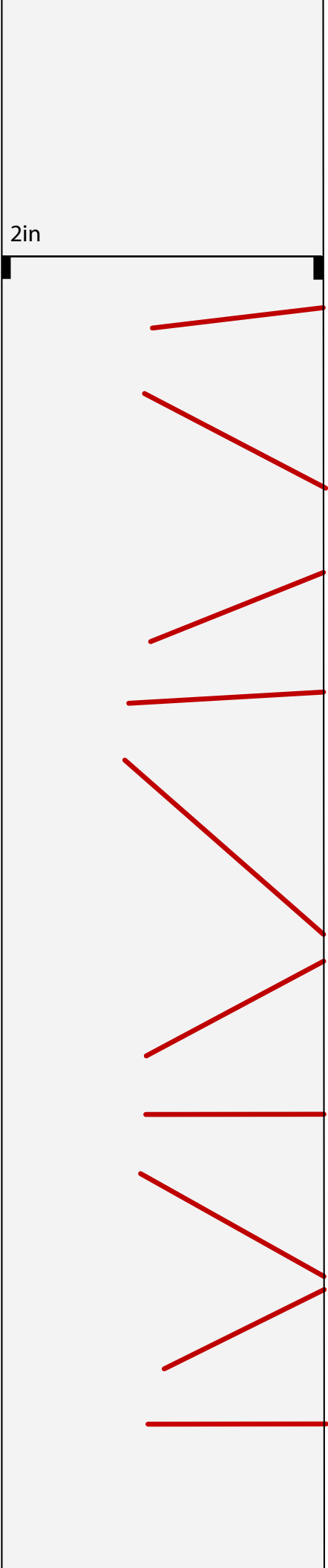


Arbrasson Cutting Template 3

1 in



Arbrasson Cutting Template 4 1 in



These templates are just a guide. Try your own patterns and see what notes you come up with!