Making and Knowing Project - Imitation Jasper – 2018 - HORN

Preparation of horn for imitation jasper (p010r_1) reconstruction
February 2018

Materials and sourcing

- Same seller and type of horn as purchased for FA15 imitation jasper annotation (Estrades) and used for FA17 jasper annotation (Lores-Chavez)
- https://www.ebay.com/itm/263420226034
    - Honey Horn Blank Slab Scales Straight Razor Restore -6"
    - Sold by ajkenne4xm3

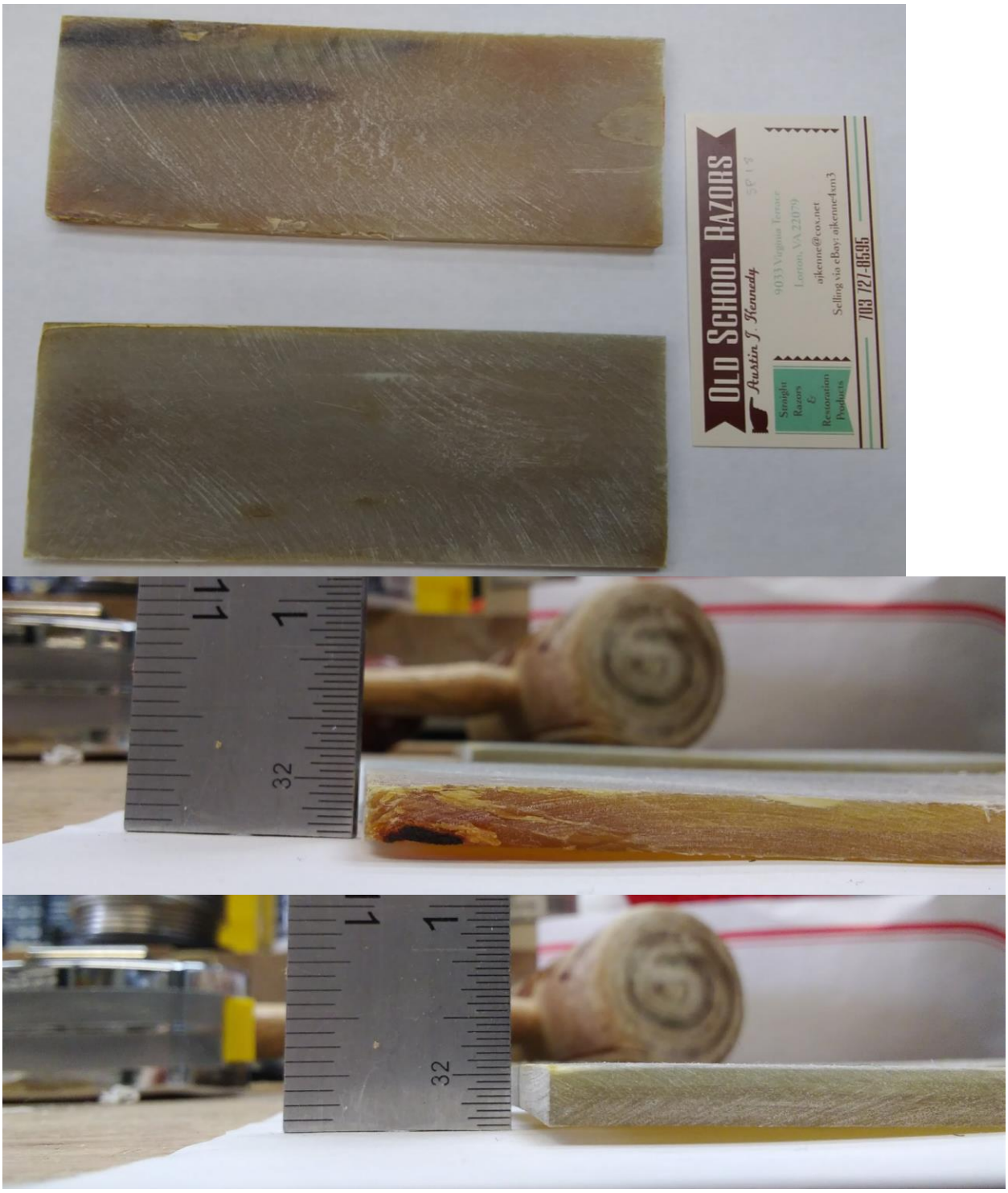
Condition: New: A brand-new, unused, unopened, undamaged item (including handmade items). See the seller's listing for full details. See all condition definitions
Country/Region of Manufacture: India
New Honey Horn shipment just arrived. This buy it now fixed price auction for $12.99 is for one blank of honey horn in similar colors shown in the photos. Slab size is 6.2" long, 2.4" wide and thickness ranges from .17 - .22". These are longer blanks made especially for straight razors. One blank makes one set of scales. It comes unfinished. Horn is very easy to work with as it can be sawed, sanded, buffed and polished to a high luster as shown in the sample finished scales of Straight Razors shown.

Prior reconstructions

- FA15 reconstruction: used water buffalo honey horn from same seller, thinned by planing with assistant from Joe Godlaw (Frick Museum conservation). Cut into ~1”x2” pieces, 2mm in thickness
- FA16 reconstruction: used same horn as previous reconstruction, planed in the Columbia Maker Space with postdoc Donna and Lab Assistant Scott Sonnenberg

February 9, 2018 preparation

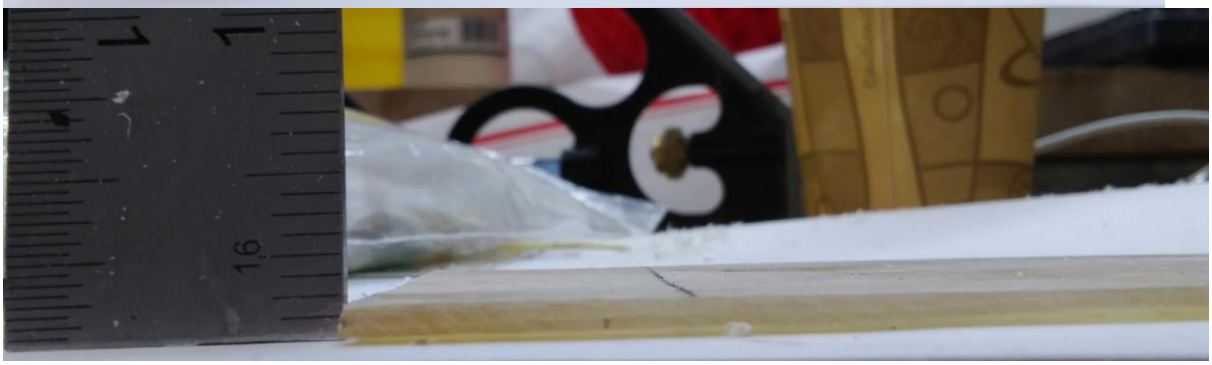
- Naomi Rosenkranz and Scott Sonnenberg prepared two ~6”x2” pieces for use in SP18 imitation jasper experiments
- Pieces prior to any thinning:



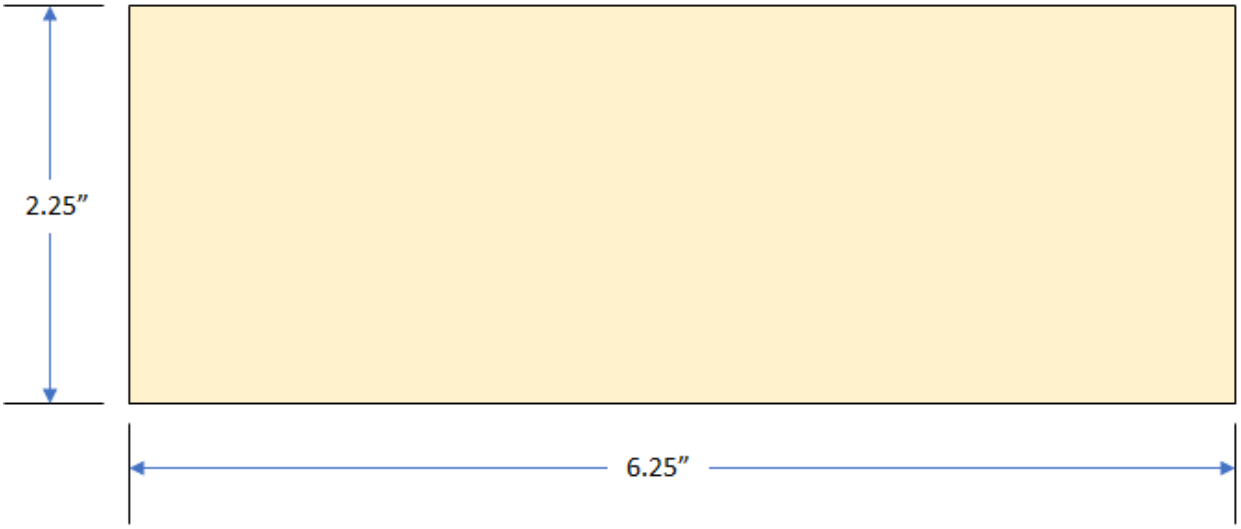
- The pieces were first thinned across the flat 6”x2” plane with a block plane, which proved not be very effective/efficient, although it did produce the longest shavings (which the AP recommends be used to make a rose)
- Then a ~1” wide metal woodworking chisel was used to remove more horn. This was the most effective tool for removing thick shavings (although the shavings splintered and broke)
- The horn slabs were then applied with pressure to a belt-sander (mechanical engineering undergrad shop), which allowed for smooth, even thinning. However, this process was very slow

and the heat produced by the friction caused the pieces to start warping . Multiple short applications were done, with time to let the pieces cool in between

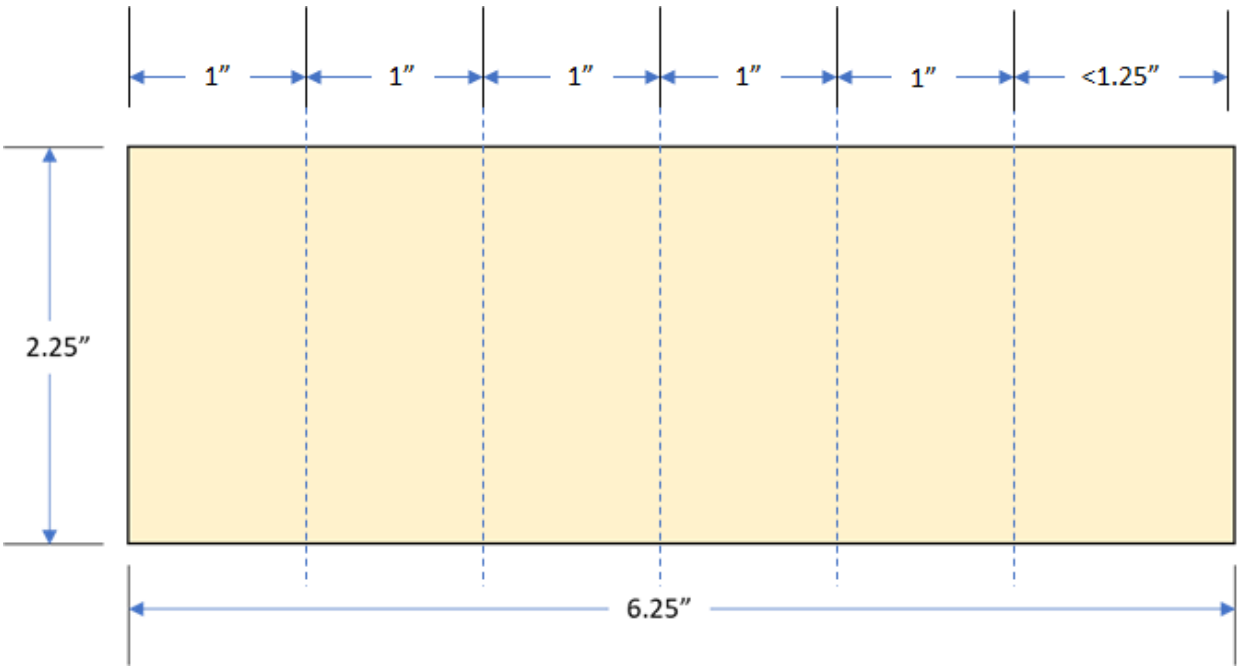
- The pieces were still quite thick after these trials, so it was decided to utilize a jointer, which allowed for consistent, smooth, flat, and thickness-adjustable surface removals. This was done slowly and multiple times to ensure the large pieces would not crack or break
- Concurrently, more surface mass was removed with the chisel, then the horn was sent through the jointer, and this was repeated until the horn measured ~2mm
- To smooth out the surface and thin the horn slightly while polishing, they were sanded with the belt sander once more
- After thinning:



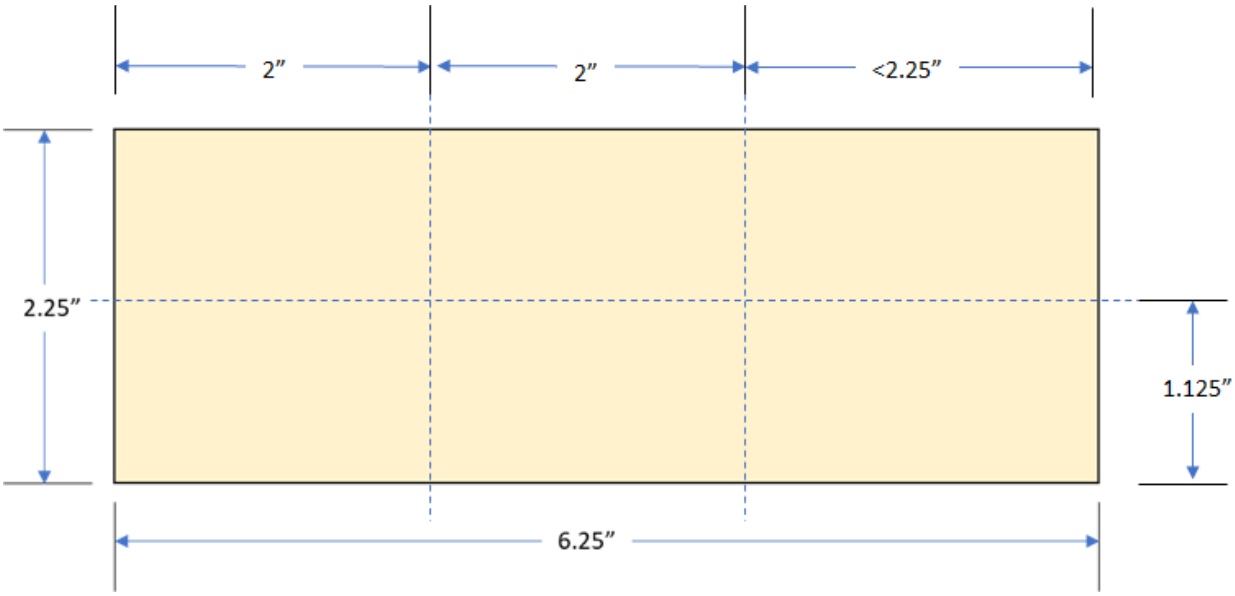
- The pieces were now cut into as many 1”x2” pieces as possible using a japanese pull saw. It was decided to cut one piece along the short grain and the other along the long grain.



- The first piece was cut as follows, producing 5 pieces measuring 1”x2.25” and one piece measuring just under 1.25” (due to incremental loss from cutting) by 2.25”



- The second slab of horn was cut as follows, producing 4 pieces measuring 1.125”x2” and 2 pieces measuring just under 2.25” (due to incremental loss from cutting) by 1.125”


2”
2”
<2.25”
2.25”
1.125”
6.25”