Scrollsaw Sea Shell

Ray Hinton 16th July 2023

Reference Sources

Web - Steve Garrison

- www.spiralsbysteve.com.au
- A New Art Form (pdf)

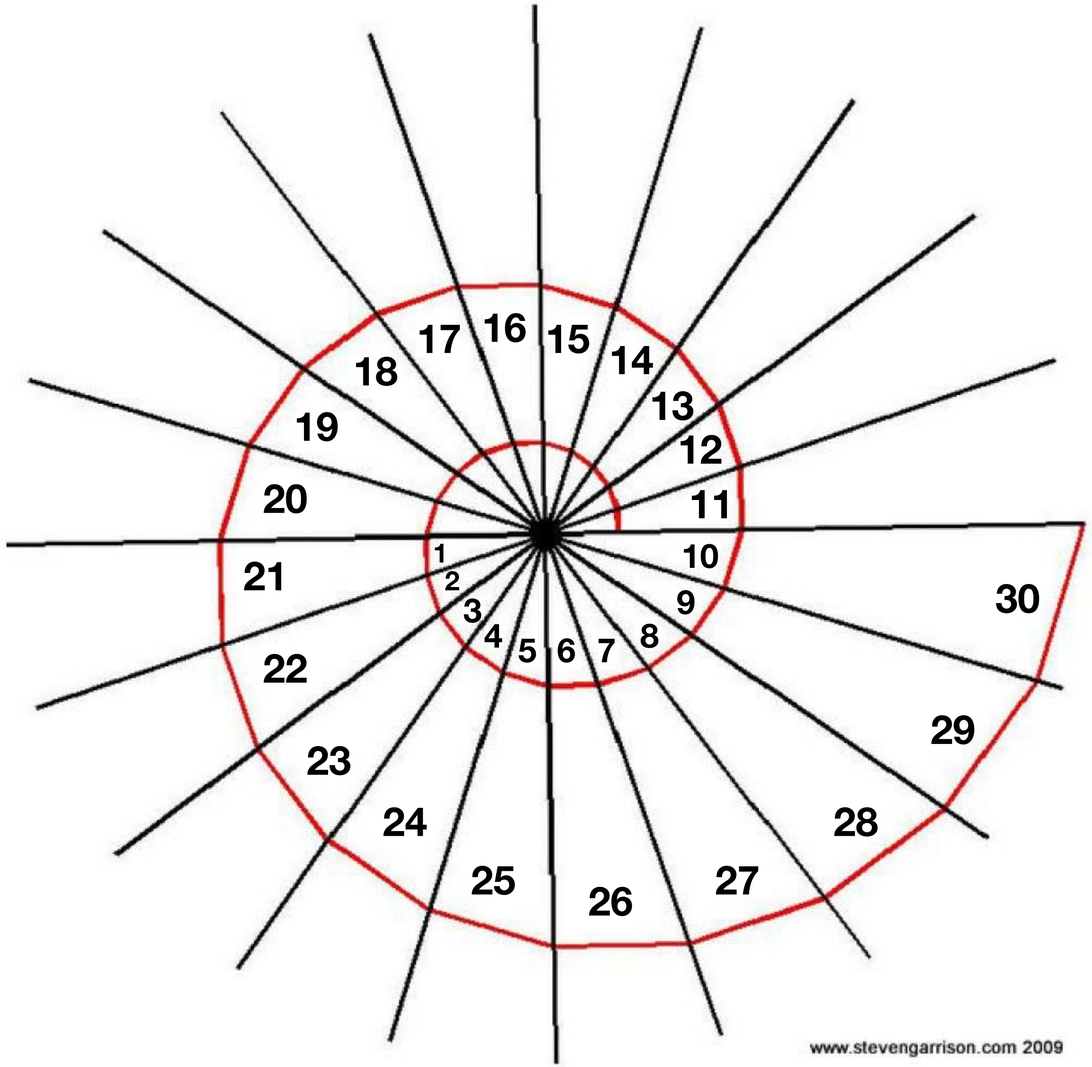
Youtube

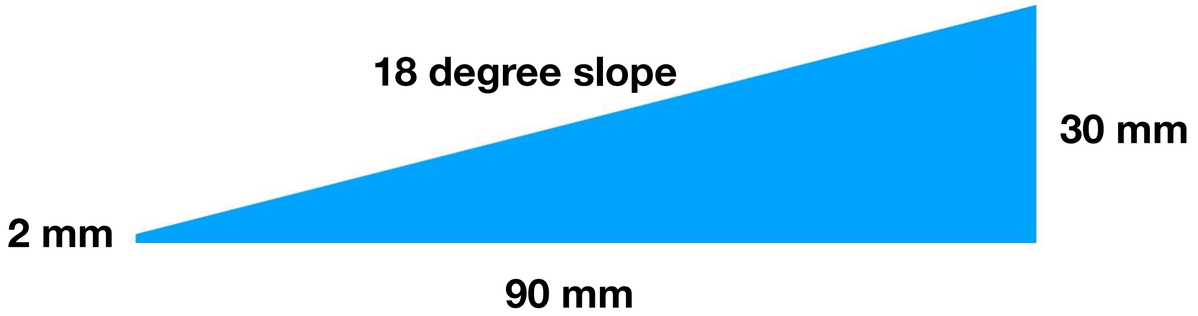
- Steve Garrison
- Making Scroll Saw Sea Shells - Acutabove Woodworking

Facebook Group

- Scroll Saw Shells

Scrollsaw Shell Structure





Scrollsaw Sea Shell Stages

- Stage 1 - prepare timber -> 4 wedges
- Stage 2 - mark out wedges
- Stage 3 - cut segments -> 30 segments
- Stage 4 - assemble segments -> shell
- Stage 5 - finish shell

Box Elder timber

Initial timber dimensions:

- **100mm x 50mm**
- **1.5m long**
- **Allows for 4 sets of wedges (4 wedges/set)**

Note: to make one set of wedges you will need timber measuring
100mm x 50mm x 750mm long

- *Stage 1 - prepare timber*

- **Timber sliced at 20 degrees**

- *Stage 1 - prepare timber*

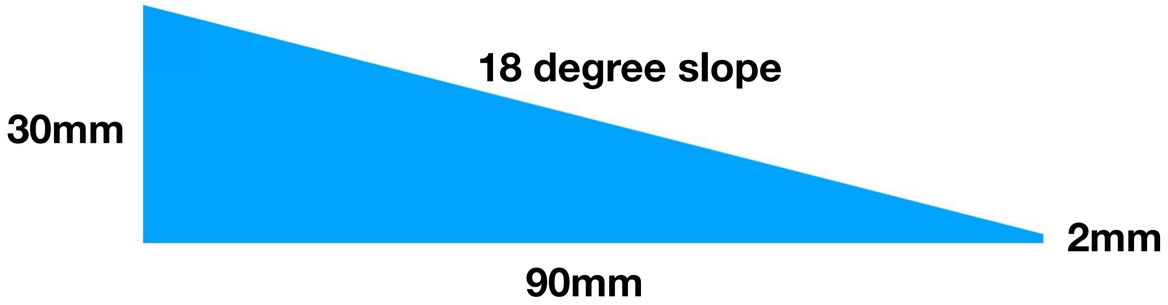
- **Timber dressed down to 18 degrees**

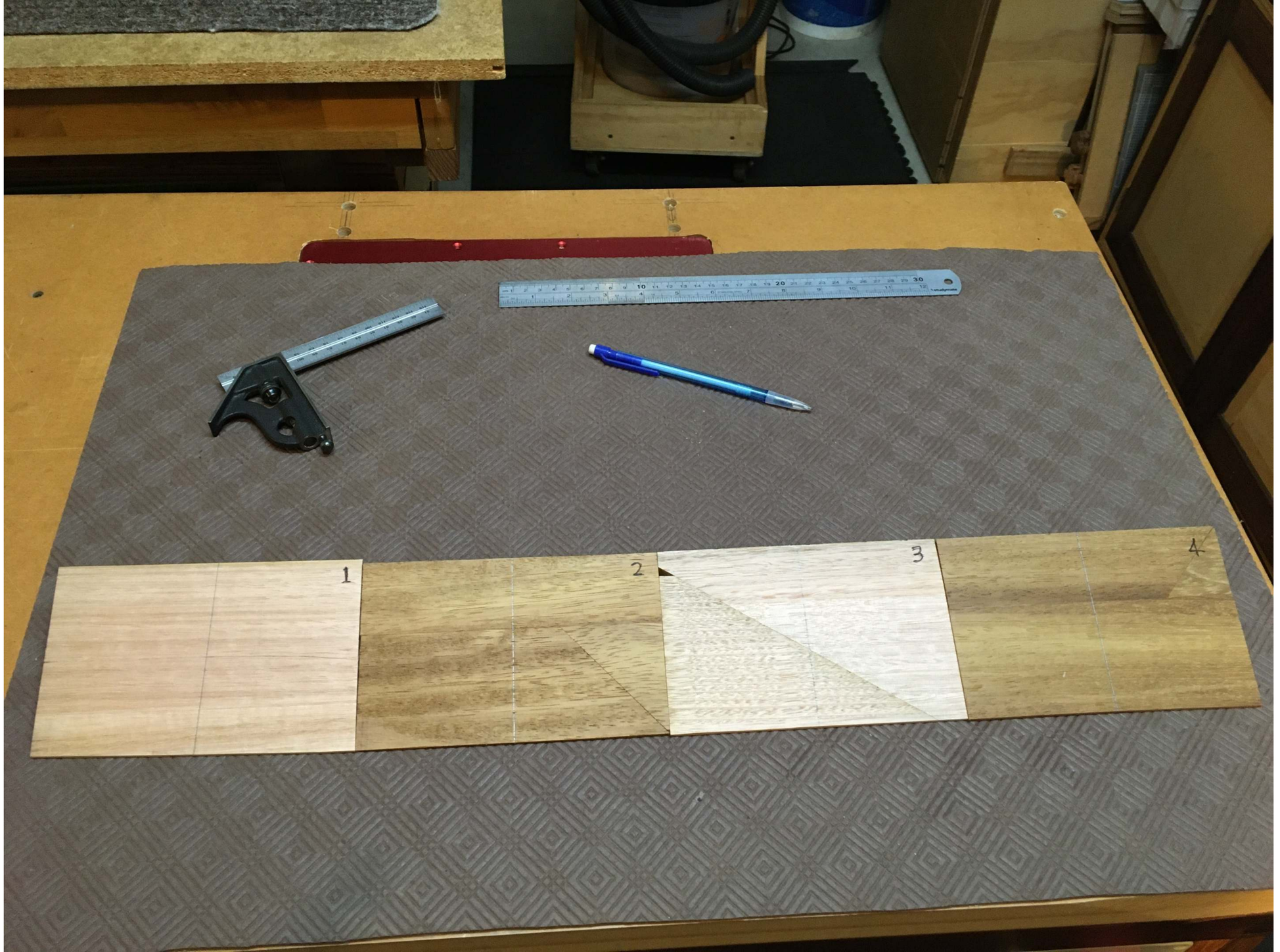
- *Stage 1 - prepare timber*

- **Timber sliced into 160mm wide wedges**

Wedge dimensions

30mm x 90mm x 2mm x 160mm long





Mark Out 1

- <u>Lay</u> wedges with right angle on bottom
- <u>Label</u> wedges 1 to 4
- <u>Draw</u> line down centre of each wedge

Mark Out 2

- **Draw semi-circle 8-9 mm radius on the thin edge of wedge 1**

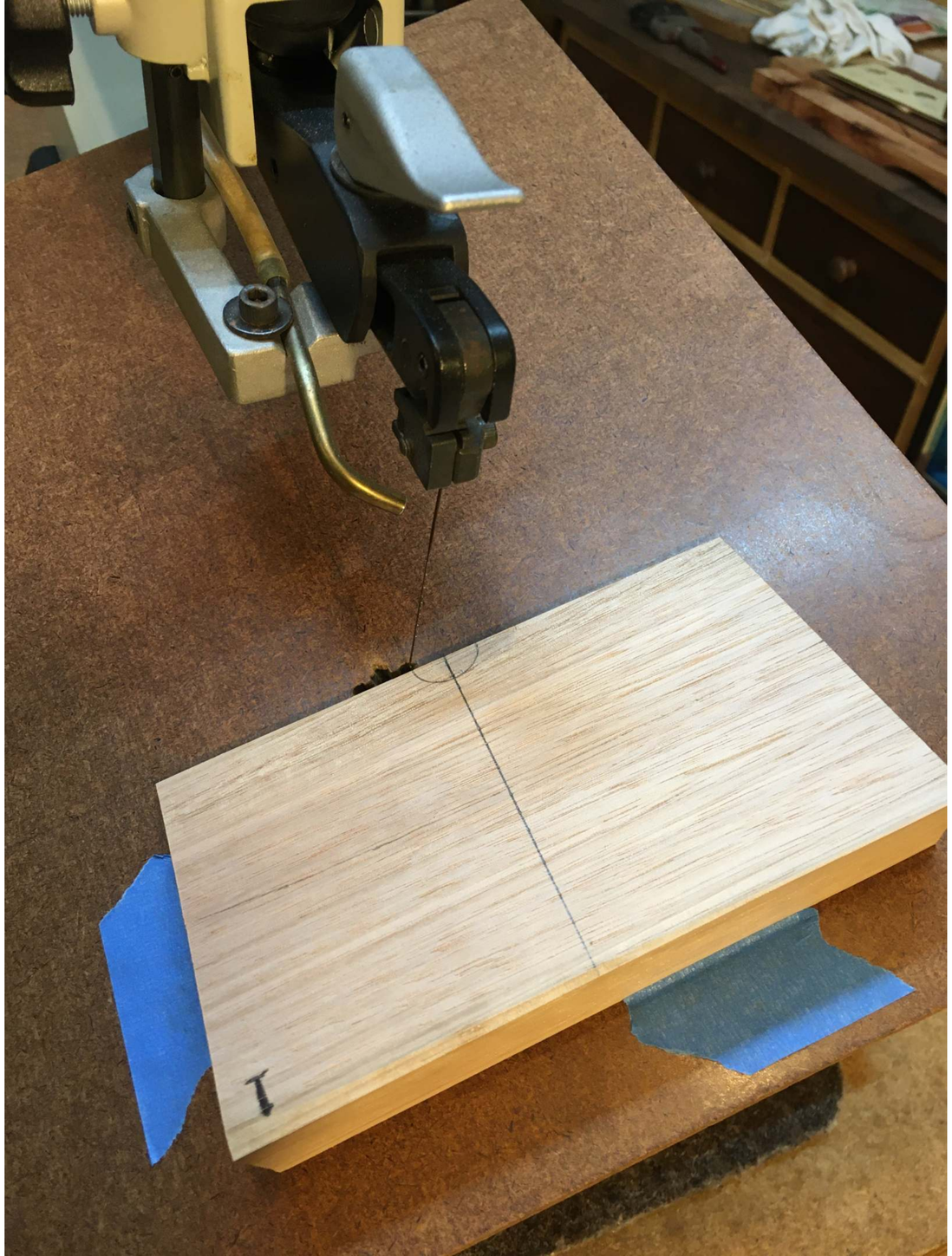
Scroll saw setup 1

- Place wedge 1 with right angle facing up on the scroll saw table

- #5 MG scrollsaw blade

Scroll saw setup 2

- Tilt the table to the Left,
  or
- Tilt the head to the Right



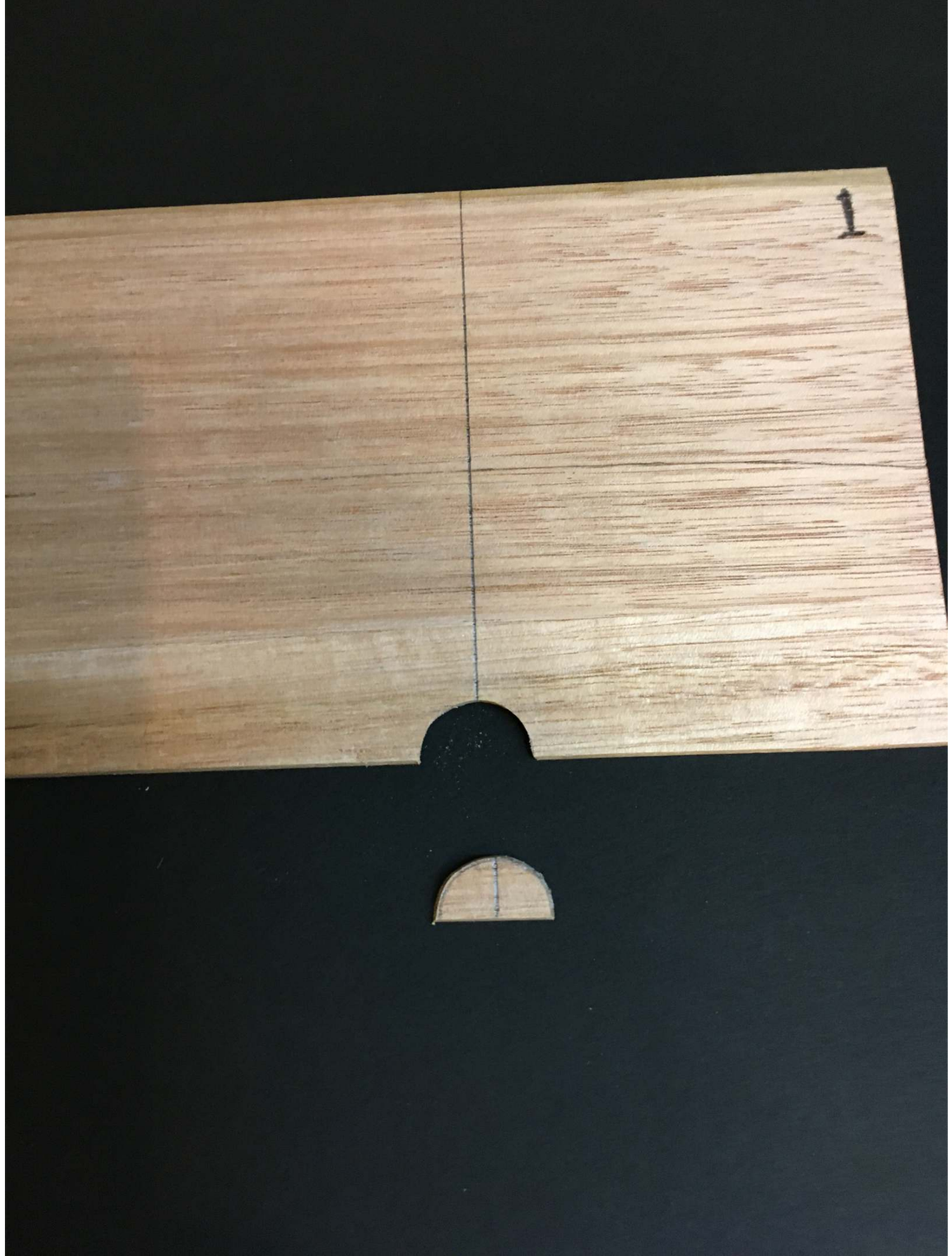
Ready to Cut

- Table is tilted to the Left,
  or
- Head is tilted to the
  Right

- Cut from Left edge of wedge

- Cut counter-clockwise

- Right angle is on bottom of
  wedge



Cut 1 Result

Mark Out Wedge 2

- **Lay wedge 1 on top of wedge 2**
- **Draw a line on wedge 2 against bottom of the cut on wedge 1**
- **Cut wedge 2**

Next Steps

- **Lay wedge 2 on top of wedge 3 - draw line and cut**
- **Lay wedge 3 on top of wedge 4 - draw line and cut**

Results - Cuts 1 to 4

What are the next steps?

- Lay wedge 4 on top of wedge 1 - draw line
- Cut wedge 1
- Lay wedge 1 on top of wedge 2 - draw line
- Cut wedge 2
- Lay wedge 2 on top of wedge 3 - draw line
- Cut wedge 3
- Lay wedge 3 on top of wedge 4 - draw line
- Cut wedge 4
- Repeat steps

Results - Cuts 5 to 8

Results - Cuts 9 to 12

Results - Cuts 1 to 30

- *cutting challenge*

Materials for Assembly

- Sandpaper
  - 180 grit on a board
  - 120, 180, 240, 320, 400 grit
- Sandpaper aids
- Eraser
- Dremel + bits
- Elastic bands
- Mask
- Gloves
- Glue
- Dust Extraction

Sanding 1

- **Sand each segment**
- **Remove any pencil marks**

Glue Up 1

- **Glue segments into pairs**

Glue Up 2

- **Glue first 6 pairs into a single cluster**

Sanding 2

- **Shape and hollow out the tip (small solid segments)**
- **Sand the 12 segment cluster inside and outside up to 400 grit**

Cluster 1 - done

- **12 segment cluster sanded to 400 grit and a coat of shellac applied**

Glue Up 3

- **Glue next paired segments onto cluster**
- **Sand cluster extension**

Glue Up’s cont’d

- **Glue up next paired segment onto cluster**
- **Sand cluster extension**
- **Repeat**

Finishing Steps

- Shape the outside curve of shell
- Shape the final segment
- Apply final sanding
- Apply finish
- Make a stand to sit the shell on

Finishing 1

- **Shape the outside curve of shell so that it is uniform in appearance**

Finishing 2

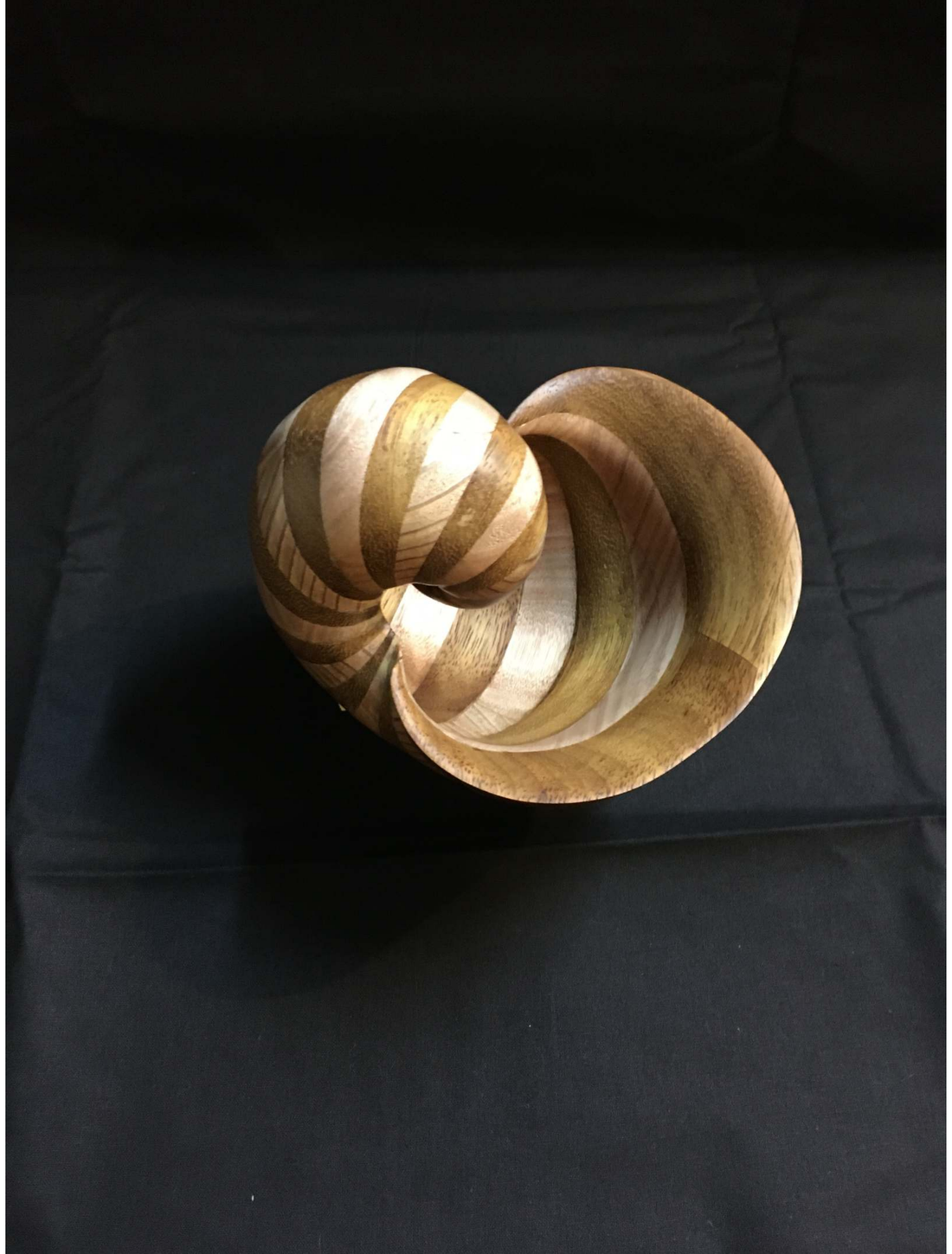
- **Draw a line where the wall is to be thinned back**

Finishing 3

- Shape the wall back to the marked line
- Sand thinned wall to final grit
- Sand whole shell to final grit

Finishing 4

- **Apply finish - your choice**



Finishing 5

- **Shell completed**

Presentation End