Round Bottom (Calabash) Bowls

Recommended Resources:

- http://en.wikipedia.org/wiki/calabash (definition and explanation)
- **The Hawaiian Calabash**, by Irving Jenkins
- http://www.honoluluwoodturners.org/index_files/hawaiian_bowls_orig.htm by Pat Kramer
- http://www.noheagallery.com/index.php?main_page=index&cPath=28 by Pat Kramer
- https://www.jkellydunn.com/default.asp J. Kelly Dunn, Hawaiian woodturner
- http://www.patkramer.net/index.html Pat Kramer, Hawaiian woodturner
- http://www.billluce.com/index.html Bill Luce, Washington woodturner

Design Features:

1. The shape emulates a calabash gourd. The shape is not spherical. The shape is more like a squashed sphere.
2. The curve is rather flat on the bottom.
3. The curve gradually rises and then closes back at the rim.
4. The rim is a simple edge.
5. The top either completes by folding in, or by a subtle out-turn ogee. The rim diameter does not increase regardless of the rim design.
6. The bowl is designed for function. It ranges from 1/8” to 1/4” in thickness. I prefer around 1/4”.

Photo Examples:

bowls by Joe Fleming

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bowls by Kelly Dunn

bowls by Pat Kramer

bowls by Bill Luce

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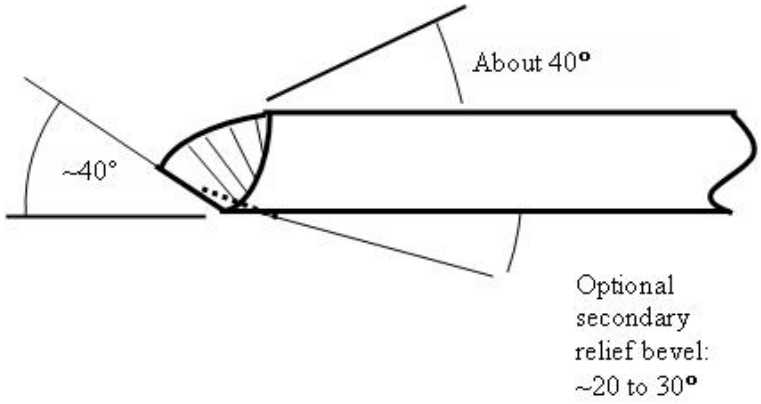
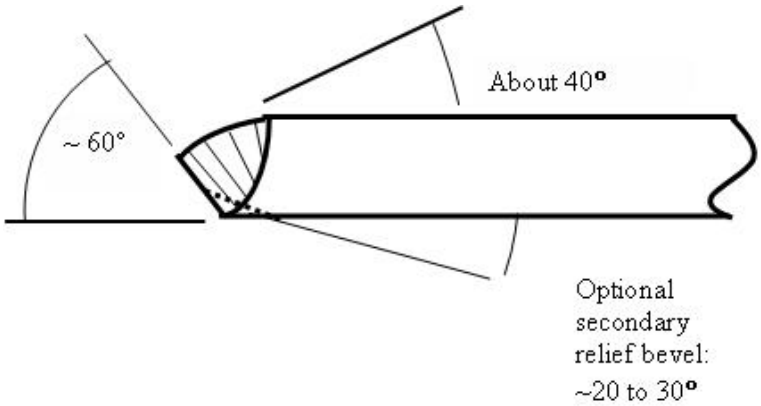
Tools to Use:

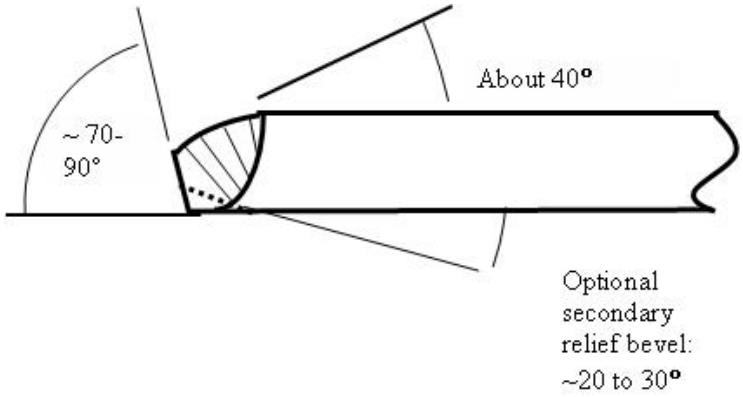
- ½” bowl gouge: 40° swept back grind
- 5/8” bowl gouge: 40° swept back grind



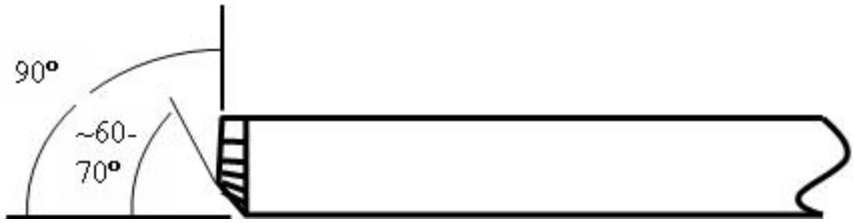
- ½” bowl gouge: 60° swept back grind
- 5/8” bowl gouge: 60° swept back grind



- 1” bowl gouge: 70°-90° steep grind



- ½” bowl gouge: 70° custom (finishing) grind



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Joe Fleming - July 2009

Turning Procedure #1:

1. Mount between centers. Orient for grain symmetry. Top of bowl near pith at headstock end.
2. Turn a foot for chuck on the bottom of the bowl at the tailstock end.
3. Turn outside of bowl from rim to foot up to chuck mount.
4. Mount bowl on chuck. Finish turn the outside of the bowl. Sand and detail.
5. Turn inside of the bowl in steps. Once top portion is turned, turn rim and ease corners.
6. Complete the inside with larger and steeper gouges. Sand.
7. Reverse bowl between centers with a friction drive.
8. Turn bottom down to the nub.
9. Carve off nub and hand sand.

Turning Procedure #2:

1. Mount between centers. Orient for grain symmetry. Top of bowl near pith at tailstock end.
2. Turn a recess for chuck on the top of the bowl at the tailstock end.
3. Reverse the blank on the chuck with top of bowl on chuck.
4. Turn outside of bowl from rim to foot. Turn a large-diameter, shallow lip for chuck with a large jaw set.
5. Reverse mount bowl on chuck at the foot. Finish turn the outside of the bowl. Sand and detail.
5. Turn inside of the bowl in steps. Once top portion is turned, turn rim and ease corners.
6. Complete the inside with larger and steeper gouges. Sand.
7. Reverse bowl on a jam chuck. Tape rim to jam chuck for security.
8. Turn bottom, removing chucking lip. Sand on lathe.

Turning the Inside:

1. Turn the inside in steps to maintain bowl stability and prevent vibration. Steps of 1” to 1.5” works pretty well.
2. Turn the thickness to a constant thickness as you thin. For example, get to a consistent 1” thickness, then 7/8”, 3/4”, etc., down to the final thickness.
3. Before each step, consider the gouge handle swing to determine which grind to select. The deeper in the bowl, the steeper the grind required to execute the cut.
4. Lift a curl on previous step as shown in figure 5 before entering cut on next step. This will align the bevel with the tangent line to prevent dig-in coves.

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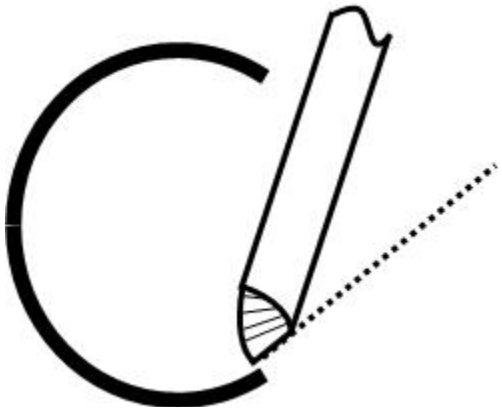
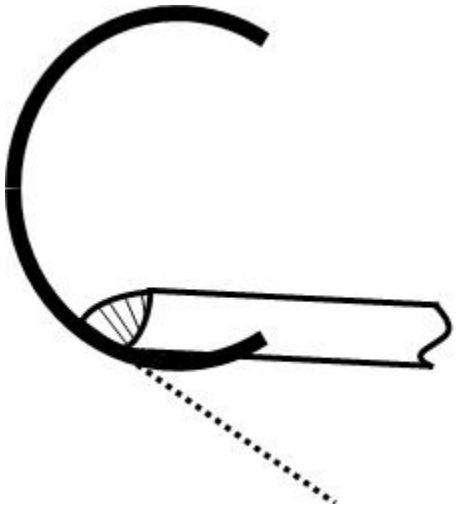
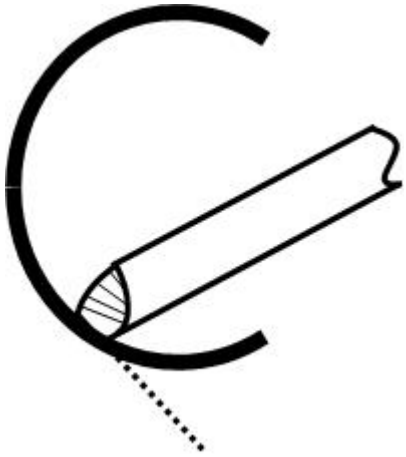
1. Start with 40° swept back grind.



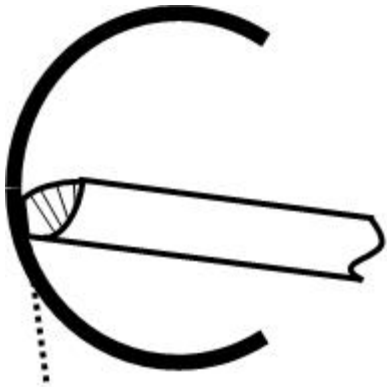
2. After completing the top portion of the bowl, the tool shaft will start to interfere with the rim.



3. Once the 40° swept back grind cannot reach, switch to a steeper grind.



4. Continue to turn with successively steeper gouges as bowl geometry requires.



5. Lift a very thin curve in the previous section before cutting into the next section. This insures that the bevel is running parallel to the previous cut and avoids creating a cove at the entry point.