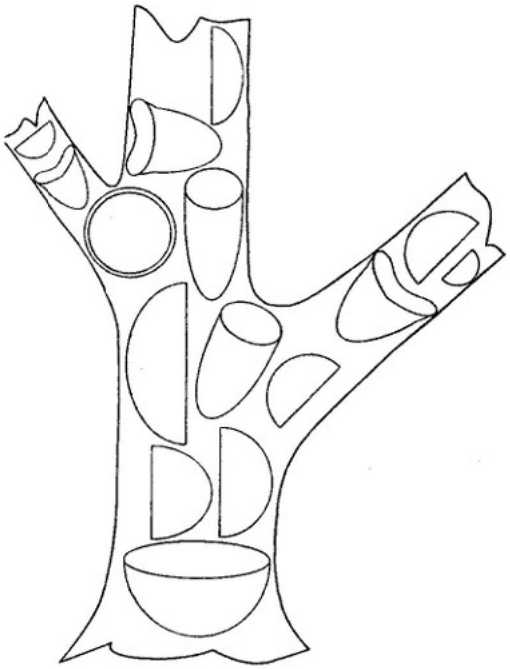
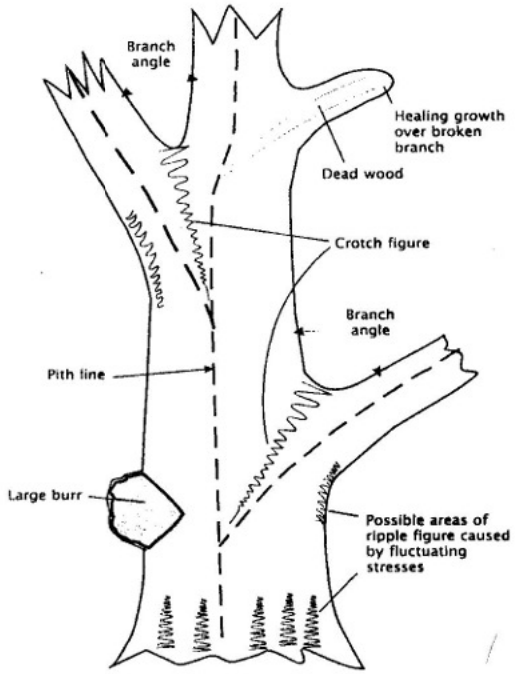
Bowling Logs March 5, 2011
(Discover What Bowls Lie Within A Log)

Logs

A tree has many bowls. Around crotches, burls, buttresses and knots you find highly figured wood.



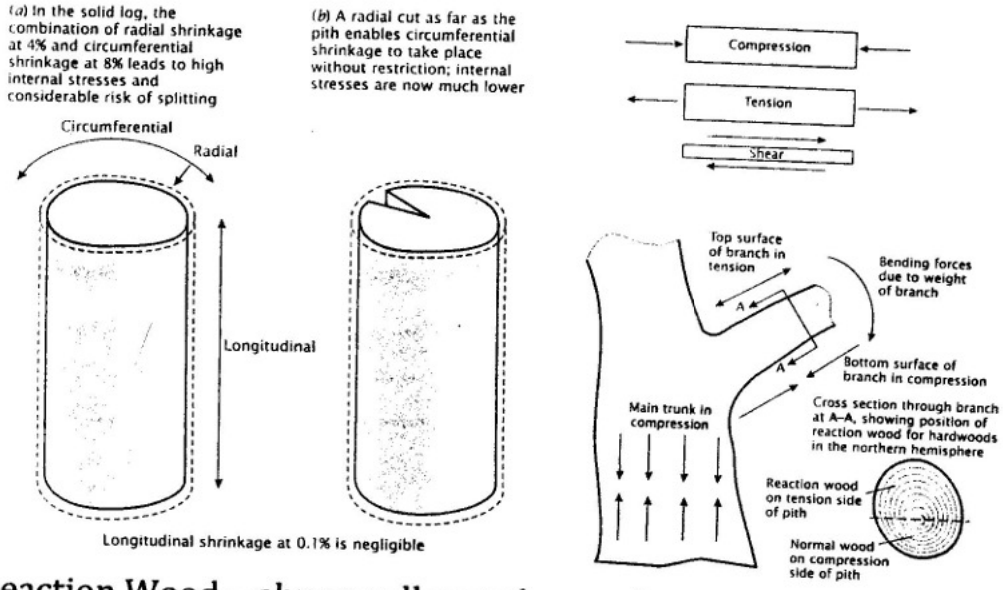


(All illustrations from Turning Green Wood, Michael O'Donnell, 2005)

As with wine, wood is sometimes best just before its no good.

Eliminate logs that cause problems with bowls - rot, punky areas, shakes, splits, checks, poor grain, bullets, fence wire, nails, insect holes – eliminate poor choices.

Consider:
Trunk vs Limb wood
Twisted wood, Knees, Burrs, Burls
Normal shrinkage in drying - 1% longitudinal, 4% radial, 8% circumferential
Compression vs Tension wood



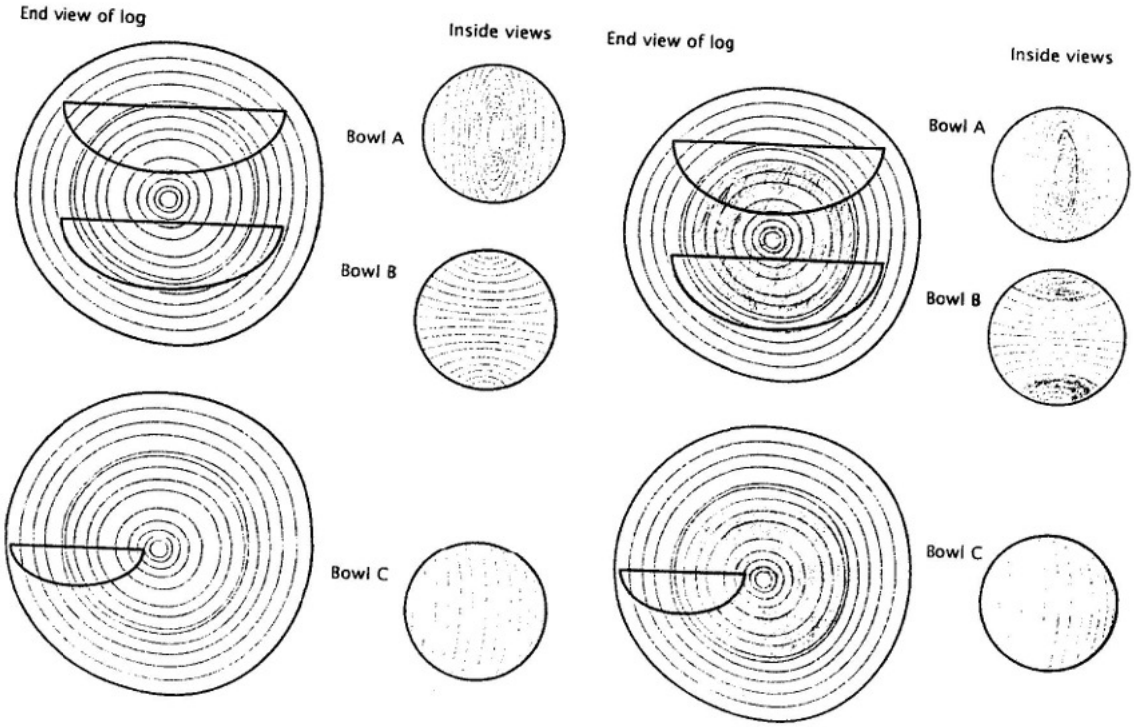
Reaction Wood – abnormally wooly wood, compression wood in softwoods, tension wood in hardwoods, shrinkage up to 20 times normal, can be 20 – 30% more dense than surrounding wood, harder to turn and work

Juvenile wood – 5 to 20 rings out from the pith

Fiber Saturation Point (FSP) to Air Dry at 12% or Kiln Dry at 9%

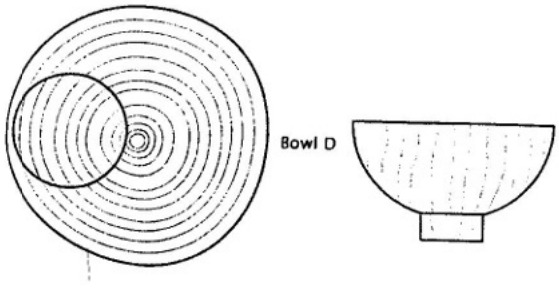
Fresh cut means within 4 weeks of felling.

Bowl Orientations In A Log



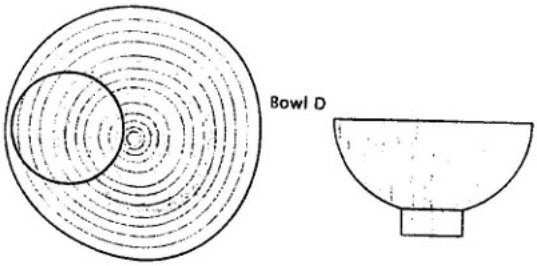
End view of log

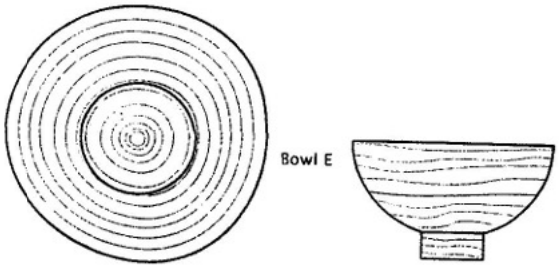
Side views

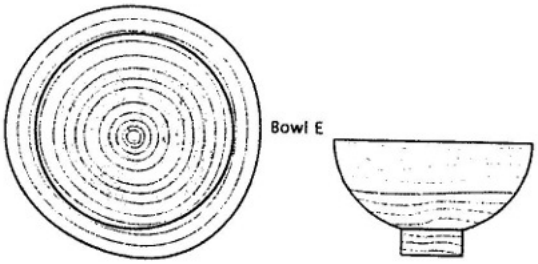


End view of log

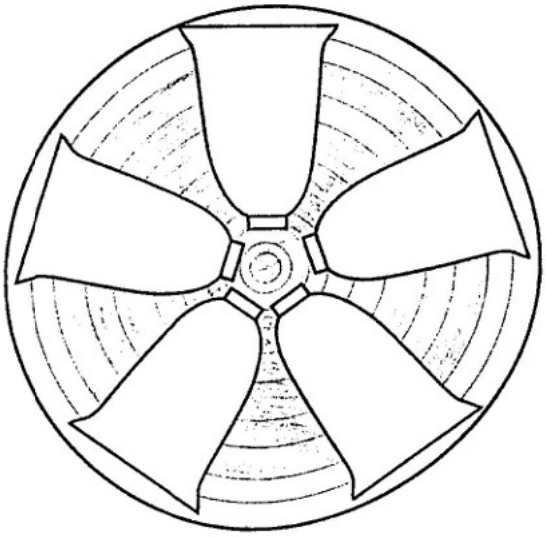
Side views

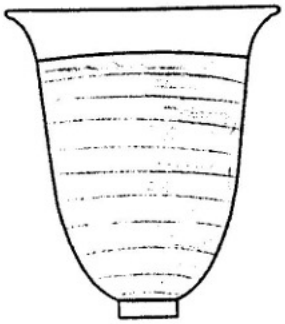


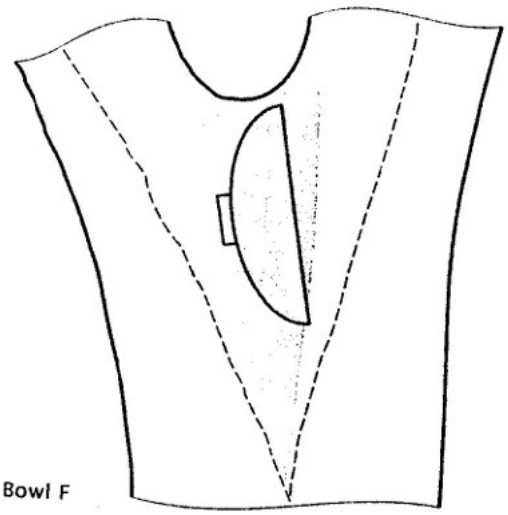




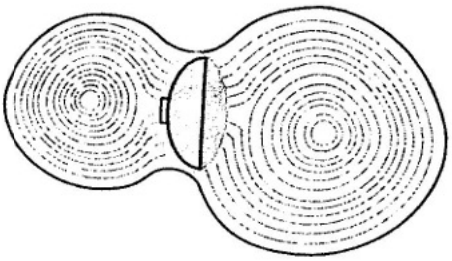
Use your imagination!!

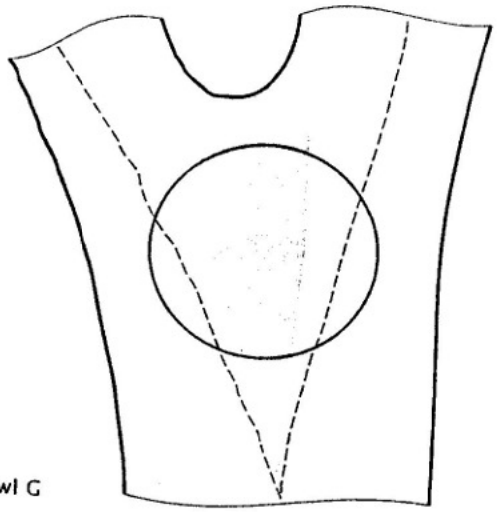




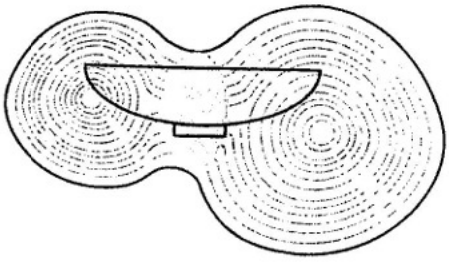


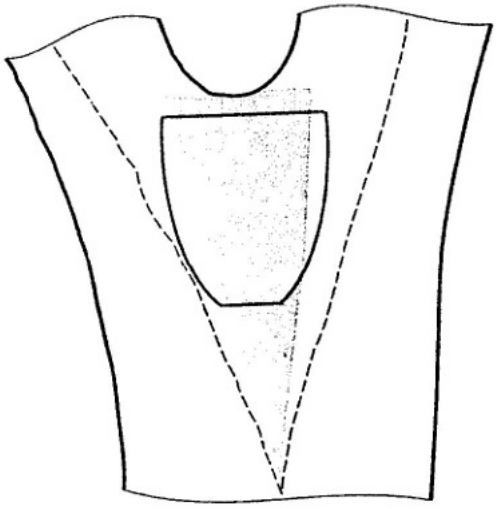
Bowl F



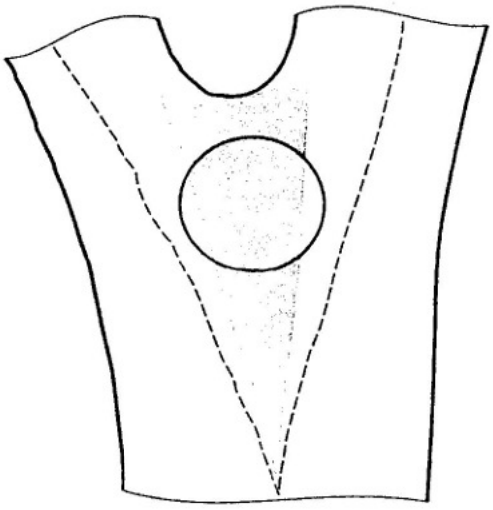


Bowl G

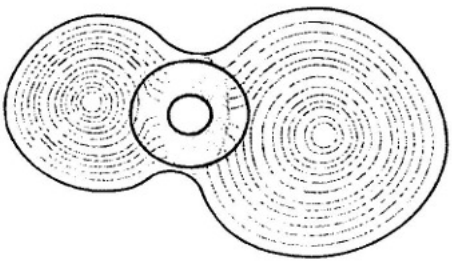


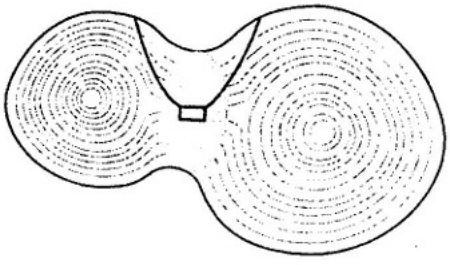


Bowl H



Bowl I (natural edge)





Decide What To Do

A. *What process will you use?* Rigorous Planning or Just Do It

Remember: "When you put the wood in the lathe all major design decisions have been made – or avoided." Michael O'Donnell

Overall Plan

1. Design – What do you want? – sketch with dimensions
2. Planning the process – Single bowl or batch, equipment & tools, sequence of action and timing
3. Sizing the blank – allow for the piece, cleaning up, chucking and tool access, shrinkage, errors, ...
4. Material Selection – what fits your purpose
5. Making the piece

Major bowl orientation is made when you cut the log up – only minor adjustments can be made with the bandsaw and lathe.

B. *Things to think about before cutting:*

Turn green or dry
What grain pattern do you want?
Natural or cut edge
Quartersawn is most stable
Flatsawn cups away from the pith
To pith or not to pith (e.g. remove pith or not)
Put color and figure on rim rather than the bottom
Distance between rings has great effect on patterns – small tight rings for small or large pieces, wide rings only on large pieces
The maximum practical depth for a bowl is about 6 inches.
Offcuts can be used for smaller bowls, boxes, or pens
The best bowl from the log or the most bowls from the log

C. *Plan log cuts and then make them.* Use chalk

D. *Plan and make bandsaw adjustment cuts*

E. *Make lathe orientation adjustments*

Questions?

Thought: "...resist the temptation to copy any bowl directly. Rather, you should take a good long look at the bowls that attract you, then

ponder the ideas, textures, techniques, and so on, before shutting the book and setting out on your own path of discovery." Richard Raffan

References

Turning Green Wood, Michael O'Donnell, 2005

The Art of Turned Bowls, Richard Raffan, 2008

Ellsworth on Woodturning, David Ellsworth, 2008

500 Wood Bowls, juried by Ray Leier, Jan Peters, Kevin Wallace, 2004