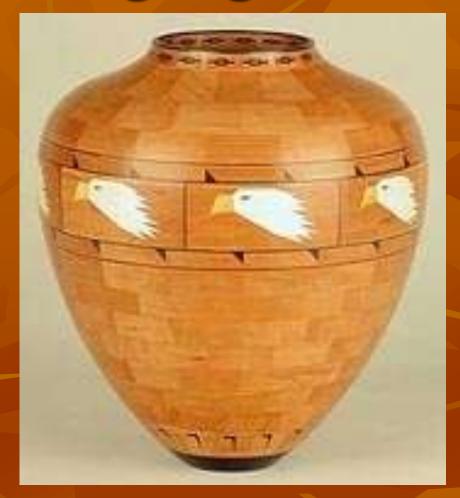
#### Stacked Ring Segmented Turning



Freedom is Never Free - by Curt Theobald

Al Miotke amiotke@chamberlain.com

#### Where do you start?...

#### Not with this!



Galactic Journey - by Malcolm Tibbetts

#### Or This!!

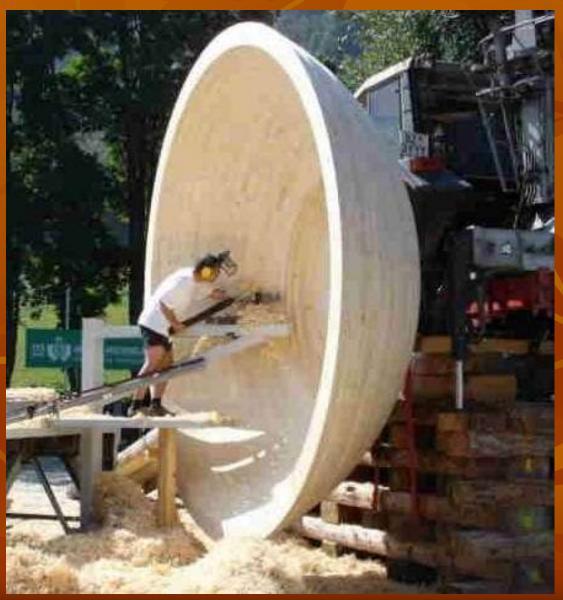


Deception on the Cocobolo – by Malcolm Tibbets

#### Start with a good book or Video

- 1. "Woodturning with Ray Allen"
  - By Dale Nish
- 2. "The Art of Segmented Woodturning"
  - By Malcolm Tibbetts
- 3. 3 DVD set Malcolm Tibbetts
  - Volume 1 is a great way to start
  - Available only at www.tahoeturner.com
- 4. Check out the website for the segmenting chapter of the AAW.
  - www.segmentedwoodturners.org

#### Then Practice with a Bowl



#### Reasons to try segmented turning?

- Create interesting and complex color patterns using natural color woods
- More affordable use of exotics
- No hollowing
- Forms that are not easy to accomplish from single piece of wood
- No end grain tear-out

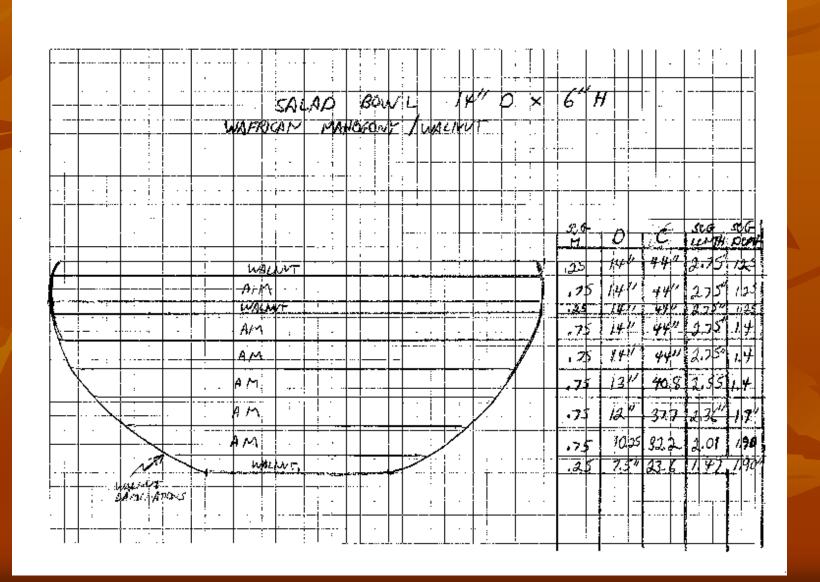
#### Reasons you might avoid Segmenting?

- Projects are not a Saturday afternoon job.
- Can't use found wood (Easily)
- Lots of time away from the lathe
- Requires a little bit of math and planning
- You might need a few more tools (But is that really a problem!)
  - Disk Sander
  - Chop Saw
  - Table Saw

### Design Considerations

Form
Color
Grain Alignment
Feature Ring design

#### Start with a good plan



#### **Wood Color**

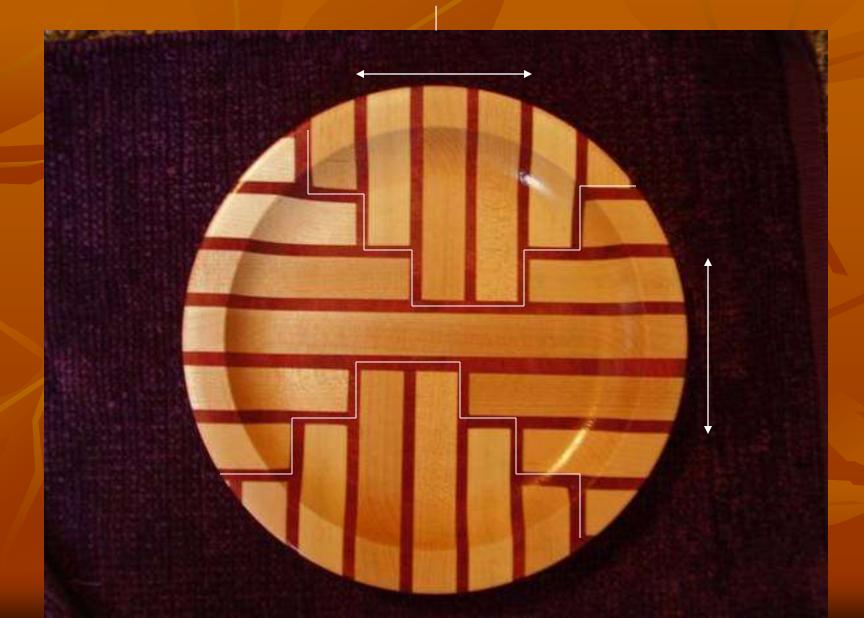
#### Lots of Options - here are Just a few possibilities

Wood	Color	Characteristic
White Maple	Off White	Nice color but not as bright as Holly- Grain visible. More cost effective
Holly	Pure White	In demand by segmenters, No grain, Harder to find
Padauk	Bright Red	BEWARE - Very attractive when freshly cut but darkens to a deep red then brown in months when exposed to light
Bloodwood	Deep Red	Maintains color much better then Padauk
Wenge	Very Dark Brown	Excellent for deep Brown Color
Yellowheart	Yellow	Good color stability
Purpleheart	Bright purple	Turns to a deep color
Walnut	Brown	Lower cost
Gabon Ebony	Black	Beautiful wood if you can afford it.

#### Nice Design ..... But!



#### Stress Lines



#### This is what could Happen



From Curt Theobald website

## Designs don't need to be complex to be elegant



Photos from Segmented woodturner's website

#### The Process

An overview

#### Make sure all tools are at 90.0°



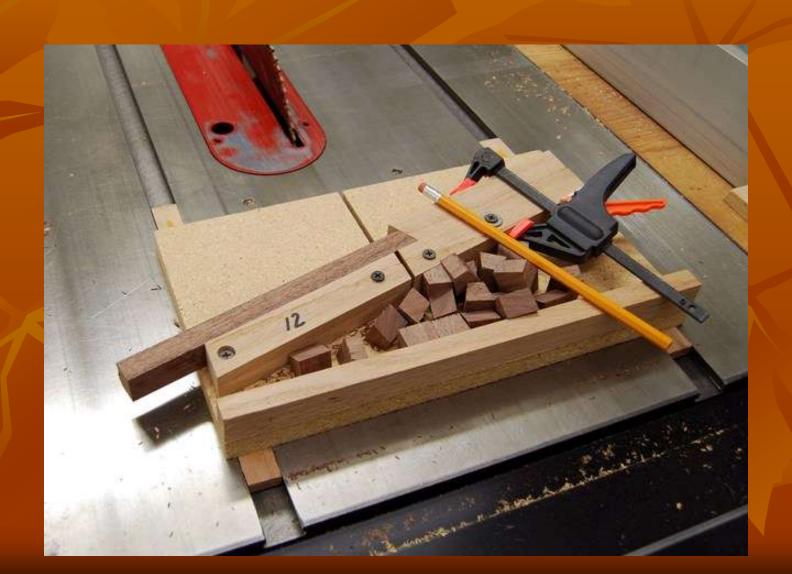
#### **Dimension the Lumber**



#### **Cut the Segments**

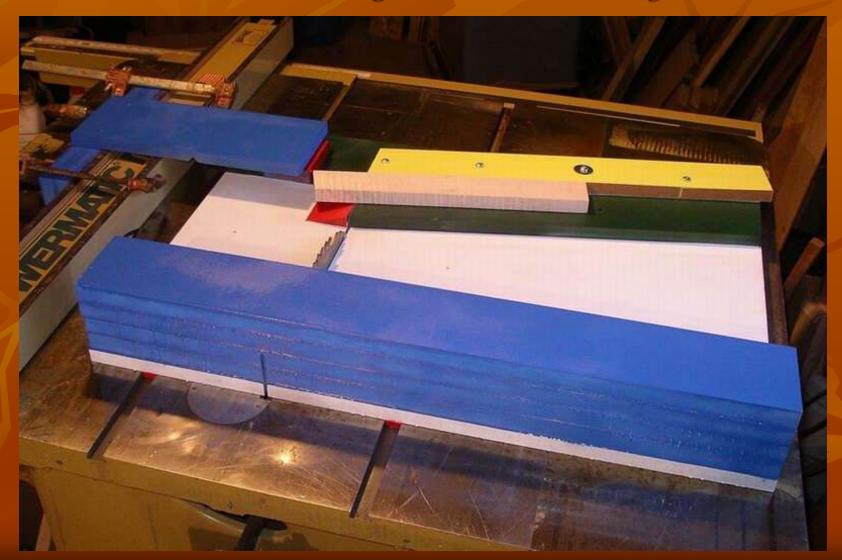


## Table Saws are also popular but you need a good sled



#### A good Sled design

Compliments of Malcolm Tibbetts
Posted on website: segmentedwoodturners.org



#### Sand the Segments



#### Start Gluing! What is the Best Glue?

- PVA Glue
  - Titebond Original is the most common choice
  - Provides high bonding strength
  - Some flexibility when cured.
  - Easy water based clean-up



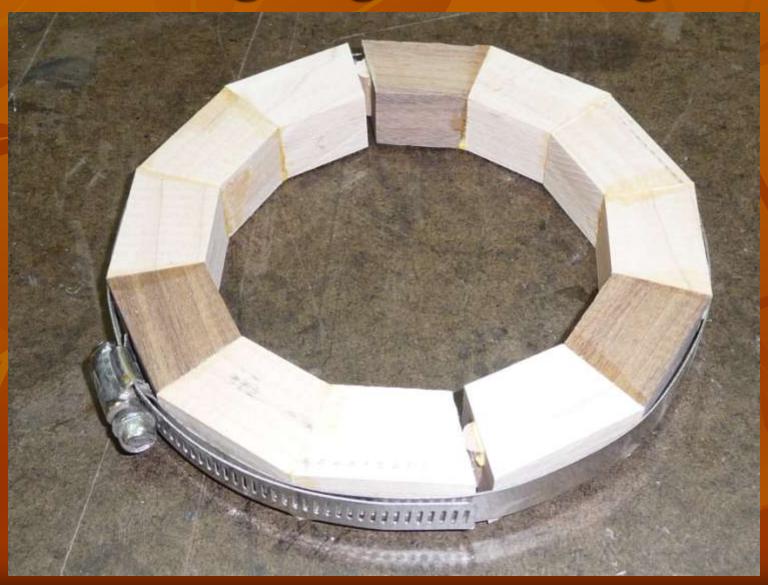
### Clamping styles



#### Half Rings and Full Rings



#### Gluing larger half rings



#### Gluing the full ring

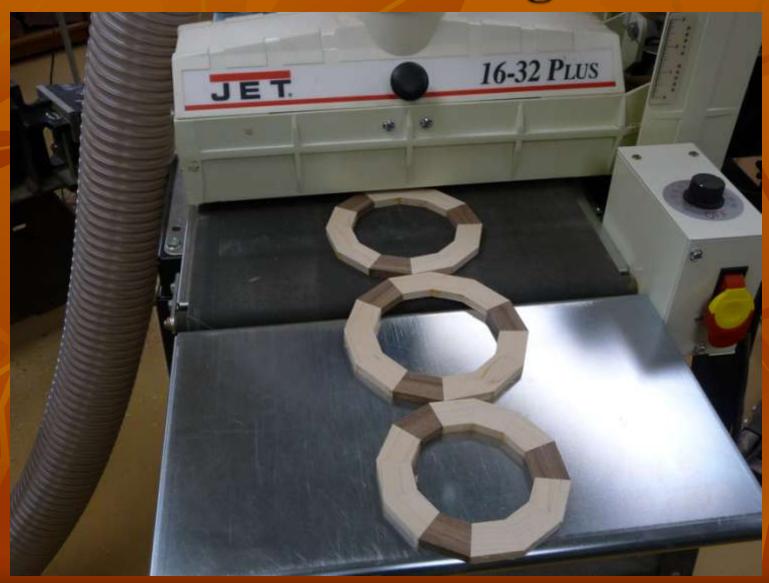


Make sure the bottom is flat

Make sure each half ring is 180.0



#### Sand the rings



## One way to sand completed rings without a drum sander



#### Stack the rings and glue

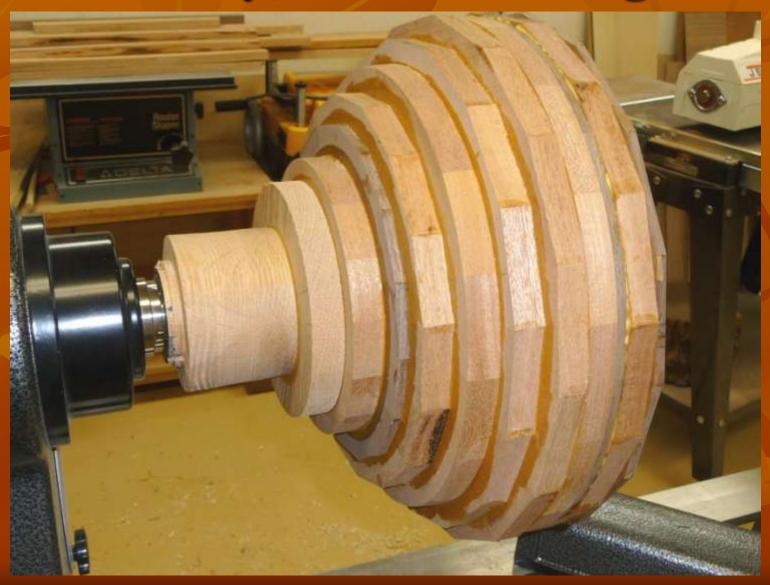
You don't need a fancy press!







#### Finally, Start Turning



#### The Assembly Process



#### The construction form



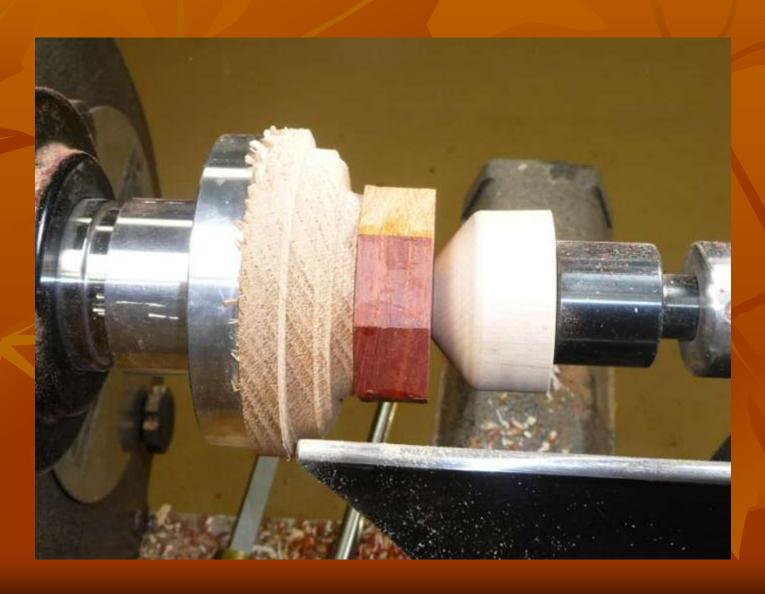
Assemble all the rings needed



#### Sand the Rings



#### Turn each ring to the same diameter 2.15"



#### All the rings turned and sanded



#### Drill rings to 1/4" wall thickness



#### Cut the rings in half



#### Rings split to 3/8" thickness



Rings arranged in the correct order for final assembly



#### Angle the rings



#### Angle jigs



## Fit each ring Tape to hold in place



#### All the rings in place



#### **Start Clamping**





#### More clamping





### The final Dry Fit



# After lots of sanding... It's

