

Rick Urban Woodturner

Changing the way you think about wood... One piece at a time!

Real Time Interactive Remote Demonstration

Relief Carving (abbreviated) with Rotary Carvers.

Companion Guide

Primary Audience: Beginner to Advanced

Time: About 1 hour

Prerequisites: None.

Objective.

The objective of this demo is to layout and carve the major design features.

Preparation.

The form to be used should be finished and sanded to an appropriate level.

Introduction.

To illustrate my process for relief carving with rotary tools I will layout and carve what I will call an *emergent growth* pattern. It's loosely modeled after patterns I've noted in sea creatures, plant life, and probably some of my dreams. I want to create the illusion that each section is emerging from and smaller than the previous one. The picture of one I titled *Scales* provides an example of what we may do.



Tools.

Carvers. There are many rotary carvers to choose from. I have several.

- Flex shaft (30,000 rpm / 1/4" and 1/8" bits).
- Angle grinder for big stuff (3600 rpm).
- Motor in hand piece (30,000 rpm / 1/8" and 3/32" bits).
- Micromotor (35,000 rpm / 1/8" and 3/32" bits).
- Pneumatic (350,000 rpm / 1/16" bits)

Bits. There is a mind boggling array of choices in bits.

- Carbon Steel (avoid).
- High Speed Steel (ok).
- Carbide in various alloy choices (recommended).

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Design.

- Single cut (more aggressive)
- Double cut (less aggressive)
- Diamond - very fine (for „sanding“).
- Safe end (without cutting flutes on the end)

Shapes.

- Inverted cone.
- Tapered.
- Ball.
- Cylinder.
- Etc., etc. etc.

Process.

- The carver is a „router.“
 - Usually work against the direction of rotation.
 - Avoid touching the bit in two places at once.
 - Two light controlled passes are better than one big uncontrolled pass.
- Start with a good form. **No amount of carving will make up for bad form!**
- Draw the major design.
- 1/4" depth is usually adequate for the illusion of depth on small objects.
- Outline the form. (inverted cone).
- Remove material near the relief boundary (ball, cylinder, tapered).
- Increase the depth (inverted cone)
- Blend the relief (tapered, cylinder, flame).
- Refine the surface(tapered, cylinder, flame).



For more information visit my website

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