

Oar Making

Riverswest Small Craft Center

We will be making oars based on a R. D. "Pete" Culler design taken from his book "Boats, Oars and Rowing". We expect that you will complete one oar in class and make significant progress on the second, which you will complete at home. The plans call for nominal 8 foot oars but the basic design can be lengthened or shortened to meet your needs.

We will be making some design changes. Pete Culler made his oars out of $\frac{3}{4}$ inch planks glued up to the required thickness; we will be using $\frac{8}{4}$ rough lumber and gluing up to get the correct width. To improve balance, we will move the end of the taper for the loom from the edge of the handle to a point 12" from the handle. This will add more weight on the handle side of the oars. You can remove this extra weight if you don't like it. Also if you need to, you can also shorten the oar by cutting new handles in this area.

Unless you made previous arrangements, we will be making the oars out of Alaskan Yellow Cedar. Oars can also be made out of Douglas Fir, Ash, Spruce and Western Red Cedar. Ash will be heavy and take all the abuse you can throw at it. Western Red Cedar will be lighter than the other choices but it won't take any abuse at all.

First Class:

1. Talk about tools, glues and oars.
2. Sharpen tools
3. Make blade pattern
4. Make handle pattern
5. Make 8 sided gauge also called a spar gauge.
6. Demonstration on how to 8 side, 16 side and round an oar.
7. Glue up oar blanks.

Second Class

1. Clean up oar blanks
2. Oar Face
 - a. Mark face center line
 - b. Mark face outline on to the oar blank. The end of the straight is 17" from the handle end of the oar.
 - c. Cut out oar face.
 - d. Clean up saw cuts on oar
3. Oar Edge
 - a. Mark edge center line
 - b. Mark edge outline on to the oar blank. The end of the straight is 17" from the handle end of the oar.
 - c. Cut out oar edge.
 - d. Clean up saw cuts
4. Oar Handle
 - a. Mark handle pattern on oar 4 sides
 - b. Cut out oar handle 4 sides
 - c. Mark oar handle 8 sides
 - d. Cut out oar handle 8 sides
 - e. Mark oar handle 16 sides
 - f. Cut oar handle 16 sides

Draft: June 2, 2010

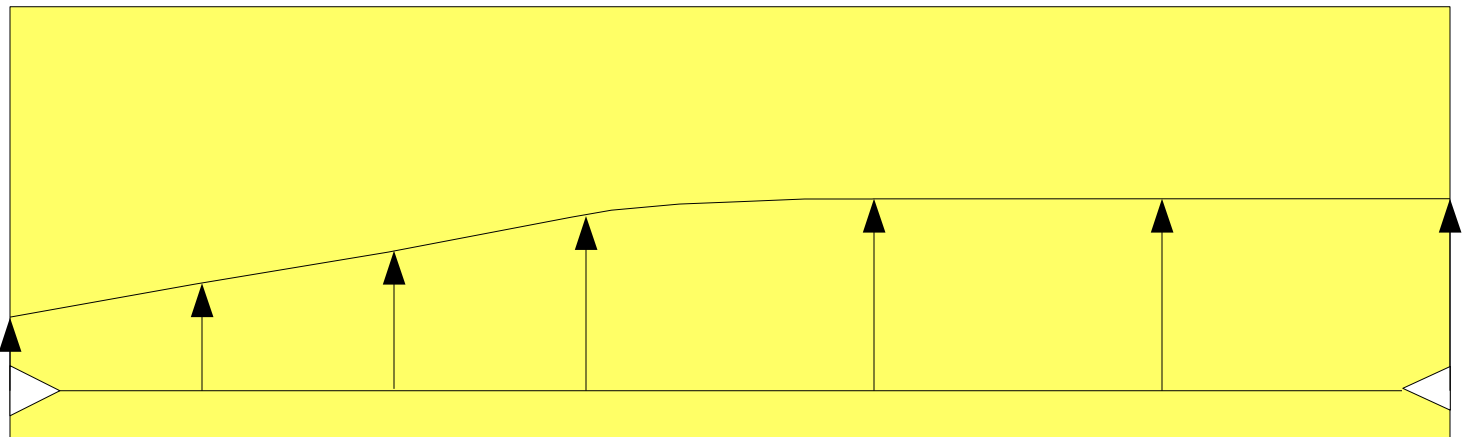
g. Round oar handle.

Third Class

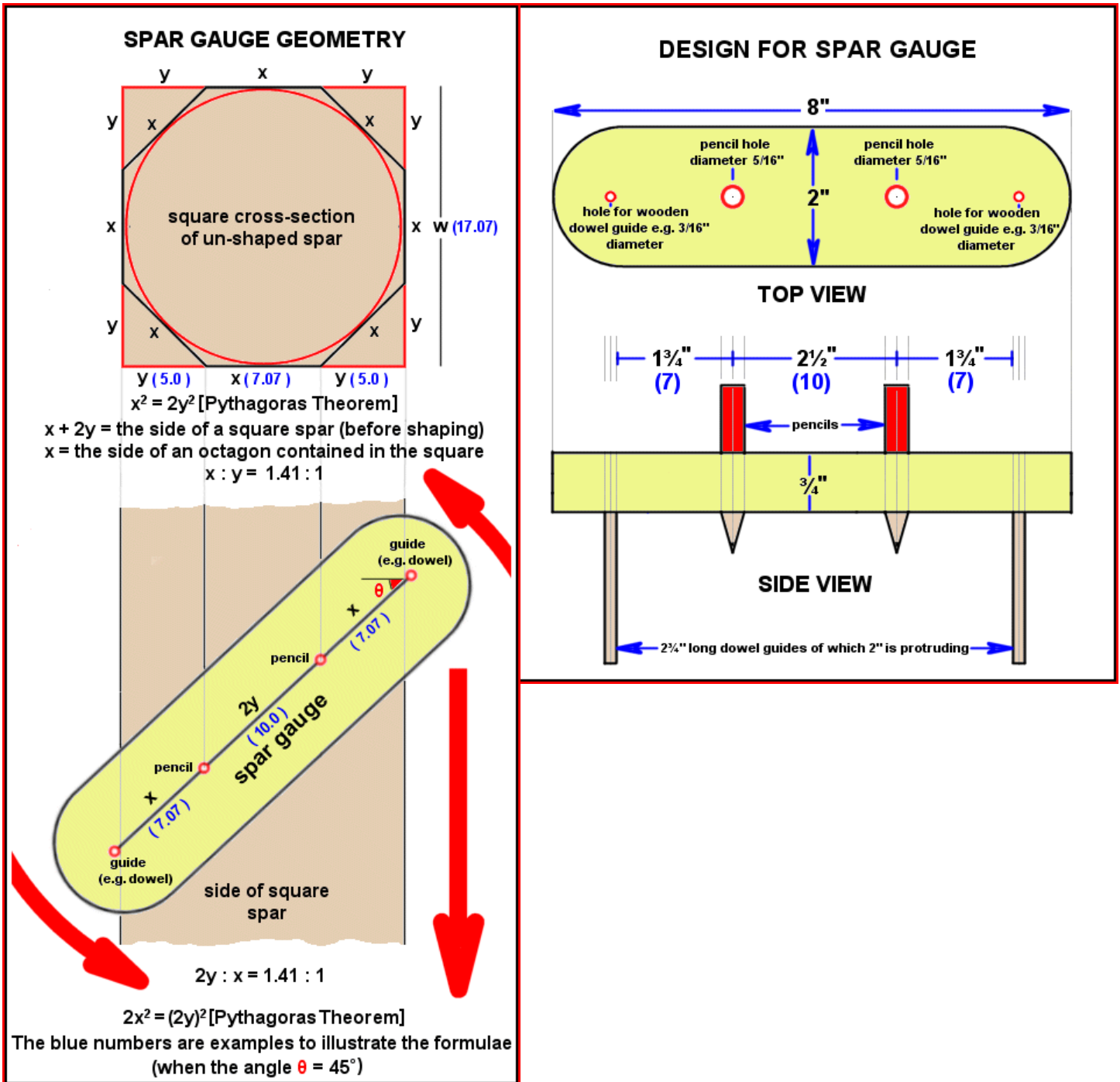
1. Mark bevels on blades
2. Cut out bevels
3. Clean up saw cuts
4. Mark 8 sides on oar loom. The loom above the leathers can be left 4 sided, 8 sided or 16 sided.
5. Cut out oar loom 8 sides
6. Mark 16 sides on oar loom.
7. Cut out oar loom 16 sides
8. Round oar loom
9. Demonstration on how to leather an oar.

Blade Pattern

1. 4" x 37" x $\frac{1}{4}$ " plywood for blade pattern.
2. Mark a line 1 inch from the long edge of the pattern. Project the line to the other side of pattern. This is the center line of the blade.
3. With the right short side as zero, draw station lines at 6", 12", 18", 24", 28", 32", 37"
4. Mark $\frac{1}{2}$ the blade width on the stations lines
5. Place a nail at each intersection.
6. Spring a batten to the nails. Adjust the nails to get a fair curve.
7. Mark the fair curve on the pattern.
8. Cut out the pattern at the pencil line or wide of it.
9. Cut out V's where the center lines meet the short edges.



Spar Gauge



1. We will be using a 3/4" x 1" x 6" piece for the body of the spar gauge.
2. We don't need a spar gauge this big so we will use 7/8 - 1 1/4 - 7/8 for the spacing, half of what is shown above.
3. Mark a center line the length of the body.
4. Mark the centers for the pencils.
5. Mark the centers for the dowels, remember to increase the spacing of each dowel by 1/2 the width of the dowels.
6. Drill drill the four holes.
7. Fit and glue the dowels.

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8. Fit the pencils.

Tools

Required:

Safety glasses, hearing protection, dust mask, etc...

Pencils or pens

Desired:

Tape measure

Combination square

Block plane: Stanley #4 smoothing plane or #5 bench plane.

Spoke shave: Stanley 12-951 spoke shave

(The boat shop may have planes available)

36", 48" or 60" straight edge

2 or more clamps

Lunch and beverage

Optional:

Draw knife

Low angle block plane

Coarse sandpaper (60 to 80 grit)

Medium sandpaper (100 to 150 grit)

Fine sandpaper (180 to 220 grit)