Research and reconstruction of Wooden Ships

03.01 Lines Drawings III

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Lines Drawings (continued)

**Lecture:** Diagonals, Rabbets, Scales, Captions, and Transoms.

**Reading:** Steffy, *Wooden Ship Building*, pp. 8-20.

**Assignment:** Wrap up Project No. 1, begin Project No. 2 (draw the lines of a 20-meter vessel according to the requirements set out in the assignment sheet).
Lines Drawings III
Diagonals
Diagonals
Diagonals:

La Belle
1684
Rechfort, France

Capturing the Curve:
A design-study by Taras Pevny
Diagonals:

(Here Chapman actually draws 2 ≠ diagonals, fore and aft)
Diagonals:
Diagonals:
Keel: Bearding Line, Rabbet Line, Back Rabbet Line.

Lines drawings represent the inner surface of the planking.
Keel: Bearding Line, Rabbet Line, Back Rabbet Line.

Conventional surface represented in a lines drawing.
Keel: Bearding Line, Rabbet Line, Back Rabbet Line.

NOTICE: When the rabbets move towards the posts these lines do not stay parallel.
Scales.

All scales must be graphic (written scales do not copy into other sizes):

Ex.:

Scale 1:100; Scale 1:12
Scale 1/100; Scale 1/24
Scale 1cm to 1m. Scale 1in. to 1 ft.
Scales.

We *always* use the International System:
- meters, centimeters, millimeters;
- kilos, metric tons;
- Scales 1/5, 1/10, 1/20, 1/50, 1/100
Scales.

We must also use the original units, when we know for sure which units were used by the shipwrights who built the ship we are attempting to reconstruct.
Scales.
Scales.

Decimal scale (six horizontal lines)

1.2 units

2.7 units
Drawings must have a border:
Captions.

Title of the project (or name of the ship);
Scale, Units;
Your name;
Course, year;
Other information about the ship, such as overall length, beam, or displacement.
Captions:

- Borders
- Title
- Text (content, size, format, bolds, italics, underline…)
- Scale
- Drawing Number
- Author/Organization’s logo or signature (and other credits)
- Date
- Place
Transoms.

- Counter timbers (normally arching out)
- Wing transom
- Filler transoms
- Fashion pieces
- Sternpost
19th century: Jefferson.
Defining lines:
Project Number 2: Slightly More Complicated Lines

Draw the lines of a vessel 20 meters long, six meters in beam, with a draft amidships of 2.2 meters. The vessel should have a transom and a rabbeted keel, stem, and sternpost. There should be a deck, and the location of its outboard edge should be indicated by a dashed line on all three views. Draw this vessel at scale 1:50, and provide a graphic scale of the proper form. The drawing will be graded on the basis of accuracy (agreement of points between views; each point out of agreement by more than 0.5 mm is 1.6 points off), completeness, fairness, and neatness. This drawing should be properly titled, dated, and signed.

The project is due at the beginning of class in Week 5.
Next Class: Hull Analysis

Lecture: Tonnage, Displacement, and Performance.
Next Class: Hull Analysis


Next Class: Hull Analysis

**Assignment:** Wrap up Project No. 1, begin Project No. 2 (draw the lines of a 20-meter vessel according to the requirements set out in the assignment sheet).

Projects No. 1, 2, (& 3!) due by Week 5!