Mare Liberum: On Paper Boat Construction

via: www.thefreesears.org (& fb.me/thefreesears)

"On July 4, 1874, journalist and adventurer Nathaniel H. Bishop [1837 - 1902] left Quebec, Dominion of Canada, with a single assistant, in a wooden canoe eighteen feet in length, bound for the Gulf of Mexico. It was his intention to follow the natural and artificial watercourses of the continent in the most direct line southeast to the Gulf coast of Florida, making portages as seldom as possible, to show how few were the interruptions to a continuous waterway for vessels of light-draught, from the St. Johns, Jags, and rocky estuaries of the Gulf of St. Lawrence in the north, to the semi-tropical waters of the great Southern States, the woes of which bate upon the sandy shoals of the small United States. Having proceeded about four hundred miles upon his voyage, the author reached Tins, on the Hudson River, New York state, where for several years Elieére Waters & Son have been protecting the construction of paper boats..." — from the 1878 edition of "Nathaniel Bishop, 1st of the Paper Canoe, A GEOGRAPHICAL JOURNEY OF 2950 MILES FROM QUEBEC TO THE GULF OF MEXICO, DURING THE YEARS 1874-5 (1878).

"Elieére Waters was an ancestor owner of no mean ability. He also was interested in nature photography, and arranged an imposing shutter apparatus and other camera devices. He was a mental balloonist for the pleasure he derived from it, and had made arrangements with some of the best amateur in the country... Mr. Waters was the inventor of the paper drone, drone oil can, paper life preserver, etc. — and was, perhaps, more familiar with methods of working on the waterman's business than any other man in the country..."

— Grotchel Myers, Paper Boating Building in the United States, 1867-1890 (1981). Water's company also manufactured site:; little glass bottles marked with the Waters name and logo still show up as ship in tos and surrounding towns. In 1995, a fire destroyed the heart and decor of the factory. Elieére was his name and George was both died within a few years. Waters held patents on his paper boats and this fact along with advancements in red oak planking technologies around the same time meant the effective end of the paper boat mining shift's 40 year history.

Le Massicot *
A Paper Skiff constructed at the ABM — July, 2012 (*French for “paper cutters"

The Paper canoe from the back side of this brochure (the 7th edition of Mare Liberum's 5-year long boatbuilding instructional series) will guide the would-be builder through us an yet inexperienced process of constructing a seaworthy craft out of little more than kraft paper, wood glue, a little bit of hardwood, and a scoler.

After our residence at the Antipe Boat Museum this summer, the process was further refined doing a two-day workshop featured as part of the World Maker faire Faire, NYC, in September at the New York Hall of Science.

Paper Bill of Materials
A best cut copy • Packing tape • one roll • P/M) roasting paper • Treebord III wood glue • 2 gallons • Kraft paper • two 500 sq ft rolls • Wood shims • one pack • Marine sponge • one gallon resin, 1/3 gallon hardener, optional waterproofing additives • Dimensional board • box 16.0, 25x (as equivalent) • Wood Screws • one box of 6-1/2" 1/2" box of 8x3/4" (horns or stainless steel) • Thin scrap wood or masonite for making the jig • Cedar or Oak lumber • Approx. thirty 1/4" x 1/2" strips, between 4" and 6" long for side wall for the beam and for shaping. An assortment of other scraps of wood for trim, breast hooks, masts, rails, and fenders.

Glossary and Practical Wisdom

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The Paper Canoe built at Maker Faire, NYC — Sept., 2012

(*a somewhat paper copy of the cheapest course sold at REI)

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Build the ML PAPERei Canoe

Follow these easy steps to your own paper canoe! Note: the roman numerals refer to the QR codes below.

1. Find a Boat *
If you don't have access to a sailboat or paper model of a canoe, you can use the ML PAPERei Canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant. To make the canoe, you will need:

- 10 sheets of white paper
- scissors
- rubber bands

2. Prepare the Boat

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

3. Prepare the Paper & Glue

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

4. Apply Paper & Glue

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

5. Gaps & the Enemy

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

6. Paper the Stern & Stern

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

7. Herringbone

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

8. Dry, De-Mold & Dry Again

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

9. Seal the Shell

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

10. Build the Strongback

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

11. Breast Hooks

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

12. Inwailes & Outwailes

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

13. The Stem & the Stern

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

14. Steam & Ribs

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

15. Trim the Edges

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

16. Attach Shell & Gunwales

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

17. Rails & Seats

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

18. Recoat with Epoxy

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

19. Finishing Touches

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

20. Let Dry for 24 hrs

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

21. Return Canoe to REI, Get Out on the Water...

   a. Cut strips of paper to size for the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.
   b. Fold the paper strips to fit the canoe. The canoe is 20" wide and 78" long. The canoe itself is made of folded paper and is water-resistant.

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* This project is a guide for building a paper canoe. It is not a complete step-by-step instruction but rather a starting point for creating your own canoe. The instructions provided are for general guidance and may require further adjustments and adaptations based on the specific materials and tools available to you. Always ensure that you have the necessary skills and experience before attempting any DIY project. Safety and proper use of materials are crucial. **Please consult with a professional or experienced canoe builder for detailed and accurate advice.**