Restoring the Mayflower II

Terry Conners
Department of Forestry
University of Kentucky
History of the Ship

• Warwick Charlton, English journalist, thought up the idea of a replica Mayflower as a gift to the U.S. to commemorate the WW II alliance, mutual heritage between the British people and the U.S.
  – Had been inspired by reading Bradford’s book while on troopship headed home from Singapore after WW II

• Suggested the idea to his newspaper and his friends at Wig and Pen Club when he returned to England.
Frequented by journalists and lawyers
History of the Ship

• Charlton formed Project Mayflower Ltd (1954), educational trust with 200 backers, including the Mayflower Trucking Company in the US.

• Charlton found out about the ship plans that had been drawn up by William A. Baker for Plimoth Plantation in early 1950s, began a collaboration with them in March 1955.
Fundraising publicity!

St. Petersburg Times,
April 22, 1955
Mayflower II was built in Upham Shipyard
1955-1957
The Crew

As it turned out, only one Mayflower descendant became a crew member:

- Charles Church (Richard Warren)
- John Winslow (ancestor arrived in Fortune, 1621)
- William Brewster, 12th generation descendant, was slated to go but didn’t in the end
History of the Ship

• Mayflower II sailed across the Atlantic in 1957 and was handed over to Plimoth Plantation after NY, Provincetown tour.

• The crew included:
  – Alan Villiers, wartime naval commander and master mariner (Captain)
  – Dick Brennan, ran the Wig and Pen Club (2\textsuperscript{nd} Cook)
  – Stuart Upham, ship builder (Caulker)
  – Warwick Charlton ("Supercargo")
Mayflower II is a vital contributor to the Plymouth economy.

As a seagoing vessel, Mayflower II is maintained by Plimoth Plantation and regularly inspected by the USCG.

2014 photograph
Condition Issues

Inspection after 2012 tourist season by U.S. Coast Guard found that the ship had some deteriorating planks and futtocks (frame sections).
Futtocks
Double-Sawn Frame Pieces

This diagram shows how futtocks are assembled to make the shape of a wooden ship’s hull.

(From Charles G. Davis’ book The Built-up Ship Model, published 1933).
Inside Mayflower II’s Hold
Inside Mayflower II’s Hold
Knees

Notice the split

Hanging Knee

Lodging Knee
Salt Damage

Douglas-fir Half Deck shown here
Inside the Ship’s Hold

130 tons of ballast
Dry Dock
(March 2013)

Fairhaven Shipyard, Fairhaven, MA
(near New Bedford)
Tony Macedo and Peter Arenstam
Port Side

March 25, 2013
Port Side

March 25, 2013
New Futtocks

March 25, 2013
New Hull Planking

March 25, 2013
Spring 2013: Phone Calls to Everywhere!
At Dry Dock Through July
Starboard Side Open (May 2013)

The shipwrights ran out of white oak!

The starboard side was replanked temporarily with red oak above the waterline.
Consequences of Lack of Planking

• The ship was not put back in the water until the end of July. Almost **seven months** in dry dock – and it missed over four months of the tourist season.

• Foot-traffic around waterfront businesses was down by ~50 percent. Without the ship, some tour operators rerouted buses away from the waterfront.
The Question on Everyone’s Mind:

Where’s the rest of the wood coming from?
Berea College Benefactor

• Sarah Fay of Boston (1899) provided funds for Berea to purchase 5400 acres of forestland.

• Berea College wished to give back to New England.
Berea College Forest (8000 Acres)

• “a resource to demonstrate and evaluate the results of long term forest management in the Southern Appalachian region”
Holger Groessler, Logger with veneer business experience and Clint Patterson, Berea College Forester
Two Trial Trees, Mostly Clear:
One Log 32’ Long, the Other 34’ Long
Lucas Sawmill, Run by Ernie Tebeau
(Northern Ohio)
Almost Entirely Clear!
Fall 2014

More Trees, Live Edge Sawing
UK Ag Comm Group: YouTube

Clint Patterson
Berea College Forester

Refitting the Mayflower II with Kentucky wood

UK College of Agriculture, Food, and Environment

597 views
Bound for Mystic Seaport, mid-November 2014
UNEXPECTED PUBLICITY!

A Univ. of Kentucky press release was picked up by a local reporter.

Her (longer) story went on the AP wire service and went into online news compilations all over the country! It also got reprinted in many newspapers.
December 2014: Mystic Seaport
Waiting for Mayflower II
Mayflower II Getting Hauled Out
Mystic Seaport
New Planking & Caulking
Futtocks Cut to Shape & Replaced
New Paint!
2015: More Logs From Berea (Planks)

37’ long – cut at knots to help prevent splitting
2015: More Logs From Berea (Futtocks)

40” dbh

All 33’-36’ long
“It’s pretty unusual to be able to sell a crooked log for a high end use that makes it worth trucking all the way to Connecticut!”

– Clint Patterson, Berea College Forester
79,000# on 80,000# GW Truck
Berea College Logs at Mystic Seaport

Lucas mill in use at Mystic Seaport
August 2015
Knee Stock
Danish White Oak Arrived 2015
Mystic Seaport

18,000 board feet of Danish white oak (Q. robur)
Update

• On November 1, Mayflower II left Plymouth for an extended (30 month) refit in the dry docks of Mystic Seaport.

• More white oak wood is still needed – knees, planking, and futtocks
Observations

- Big white oak trees are very difficult to find. Still, there has been a lot of enthusiasm for this project.

- Sawtimber and veneer are king, ties come in second, pulp and bioenergy third, and other markets (except staves) are much less known or sought after. There’s little knowledge about long-log markets & even less is known about sweepy white oak log markets.
“Mayflower II has had very good regular and routine maintenance, but the ship will need 7 million dollars to prepare her not only for the 400th anniversary commemoration in 2020, but also for the next 40 to 50 years of the ships lifecycle.

We at Plimoth Plantation appreciate any help and support we can get. Gifts large and small may be made by visiting our web page at www.plimoth.org and clicking on the “Support us” tab - Or contact our Development department at 508-746-1622 ext. 8226.”

- Whit Perry
  Associate Director of Maritime Preservation, Plimoth Plantation