

Legacy of a Ship Model

***Examining HMS Princess Royal
1773***

By Rob Napier

Distributed by: Sea Watch Books, LLC, Florence, Oregon
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For Rob Napier, the opportunity to rebuild a 230 year old Royal Navy Dockyard model was too good to pass up. Although he had repaired numerous museum pieces in the past, the scope of this job was beyond anything he had ever undertaken, and the challenge intrigued him.

HMS *Princess Royal*, one of the finest models in the Rogers Collection at the Naval Academy Museum at Annapolis, was literally falling apart. If left unchecked, this magnificent example of the 18th Century modeler's art would become nothing more than an ornate pile of wood!

Napier's latest book, *Legacy of a Ship Model, Examining HMS Princess Royal 1773*, outlines, in remarkable detail, how the

author brought this beautiful model back from the brink.

The book starts out with the story of a baby girl named Charlotte Augusta Matilda Hanover, the first daughter of King George III and his wife, Queen Charlotte. Being the eldest daughter of the monarch, she became the Princess Royal. About a year after her birth, construction on a 90-gun, second rate ship of the line, and a dockyard model, commenced, which would be her namesakes.

The author feels that the model and actual ship were built concurrently. He also contends that dockyard models were not intended to be design proposals or awards for laudable service. They served as visual references as to how various aspects of the actual ship would appear. Areas of the model were not covered over until after being studied by the modelwright's superiors. This might explain the remarkable level of detail incorporated below decks on dockyard models, which, in most cases, cannot be seen without special instruments.

HMS *Princess Royal* did not have a stellar career, but she appears to have been a lucky ship. During her 34-year history, which included fleet actions in the Caribbean and Mediterranean, her casualty rate and sustained damage was well below the average for that time in history. The ship was broken up in 1807, making her the shortest lived of the four vessels in her class.

In Chapter 1, Napier explains that the *Princess Royal* is not a fully framed example of a dockyard model, but represents a technique that evolved in the 1740's, which is now called the Georgian style. The hull was built around a hollowed-out core, which, today, we would refer to as a plank-on-block model. It was the outward warping of this core that precipitated the need for the extensive repairs. How Napier would eventually compress the hull

back to its original dimensions was the key to the entire project. This initial chapter ends with the model's provenance.

The second chapter outlines how the project evolved, the procedures used to diagnose the condition of the model, and the formulation of a strategy for effecting the necessary repairs. This last facet would be modified as new challenges



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were discovered. All this planning and preparation would take approximately two years, and would utilize some modern technology. *Princess Royal* would be extensively x-rayed and probed with an endoscope. The book contains numerous photos, which illustrate the results of these exploratory procedures.

With Chapter 3, the author begins the story of his efforts to restore *Princess Royal* to her former glory. At first, it may seem a bit strange to the reader that Napier should start this initial chapter with the disassembly of the lowest deck, since all the other structures above it would have been removed first. However, in retrospect, it is the most logical choice, since the author, for the sake of continuity, addresses the work on each deck in its entirety, from tear-down to reassembly. The pattern will be the same for every level. Initially, the beams, lodging knees, carlings and ledges are evaluated, which is then followed by decking, deck fixtures and compartments.

The Forecastle Report, October 2010

Sometimes, adhering to this plan becomes difficult, as structures are encountered that pass through as many as two other decks. The author skillfully addresses these situations without affecting the continuity of the various chapters.

As Napier works his way from deck to deck, the book, at times, reads like a mystery novel. Construction methods are encountered that are puzzling, yet intriguing. Although they can never be proven, the conclusions and theories the author presents are insightful and plausible.

Princess Royal's provenance is well documented, however, the numerous repairs and/or modifications made to the model are not. In most cases, this post construction work is quite evident, and of questionable quality. This presented quite a quandary for the author - to improve upon the good intentions of those who made these changes, or leave as is. These situations occur often in the book, and many are discussed in detail. In some cases, Napier postulates as to how these repairs could have possibly been accomplished, since they're well within the bowels of the model.

This book contains nine appendices. In the first segment, Napier describes the eighteenth century methodology for calculating length on the keel for tonnage. Appendix 2 demonstrates how the x-ray analysis helped deter-



Photo by
Eric Smith

mine the nature of various components, and the location of hidden metal fasteners.

The galley stove was probably one of the most detailed objects on the model, and Appendix 3 compares its dimensions with another known reference.

In order to keep track of the parts removed from *Princess Royal*, Napier devised "memory boards", which were oversized photo copies (125%) of each deck that were glued to foam board. As components were removed from the model, they were wire-tied to the board in the corresponding locations. Appendix 4 depicts photos of some of those memory boards.

The fifth appendix, titled: "For the Record", features a list of deck framing pieces that were altered or replaced. It also provides tables that give the total number of framing components each deck contained.

The beakhead bulkhead filigree was in need of some restoration, and Appendix 6 addresses those repairs.

Appendix 7 illustrates which ivory and boxwood carvings were removed at the stern as a result of being loose or to facilitate repairs. While disassembling the *Princess Royal*, Napier collected a considerable amount of detritus (debris). Appendix 8 shows where some of these bits and pieces were eventually reattached to the model.

Last, but certainly not least, Appendix 9 is a compendium of photos that amplify the story, and communicate to the reader some atmosphere of the project.

An unexpected bonus, which comes with this book, is a DVD video set to music that depicts Napier's work on *Princess Royal* in quick time. With an overhead camera and the model mounted in fixed positions, a photo was taken every five minutes during the entire length of the 1½ year project. In all, approximately eighteen thousand images were edited to create the 6½ minute film.



Photo by
Eric Smith

Legacy of a Ship Model is a remarkably well illustrated book. There are very few gray-scale photos, and many drawings and sketches are enhanced with multicolored lines. The attention to detail makes this a must-have book for those interested in eighteenth century dockyard models or model ship restoration. The author also shares numerous modeling techniques that can be applied to your current or future projects.

At one point in his book, Rob Napier states: **"Working with hundreds of similar pieces taught me a lot about how an eighteenth-century modelwright worked, and how to distinguish nuances of shape among many identical pieces. I experienced his sense of order, precision and décor."** *Legacy of a Ship Model* is able to impart some of those same feelings on the reader. This book is highly recommended.

Reviewed by Bob Filipowski