

## 290 Expanding One's Research Horizons

I had the opportunity, recently, to examine a large number of very fine models. My initial reactions, unsurprisingly, were admiration for the craftsmanship and presentations of the modelers and respect for their dedication to their art. As I continued to study this very disparate group of models, I began to realize very strongly that one of the elements of commonality they displayed was the extraordinary scope of research material their builders had brought to bear on creating these jewels.

In order to attain the highest levels of accomplishment in model making, craftsmen need to extend their research efforts into a great diversity of different fields and master the techniques for accessing all of them. Most competent modelers fully understand the importance of research as the basis for the accurate representation of their prototypes, but mastery in this field comes to those who broaden their outlook well beyond the basic parameters.

If one were to ask modelers to define the foundation for the creation of accurate models, an overwhelming majority immediately and unhesitatingly would select access to original plans or drafts as the prime necessity. To some extent, this is indeed a valid choice but, unfortunately, it ignores the limitations of most of the plans modelers use. In the real world of full-size ship construction (and even more so in the aircraft industry), the general arrangement plans or drafts upon which modelers rely (at times almost as if they were scripture) are just what their name implies: general guidance for the fabricators who actually rely far more heavily on detail drawings, tables of offsets, and other information during the building process.

Understanding the limitations of our individual sources is an essential step toward mastery in model construction. Great model makers delve deep into plans archives in search of the graphic detail that will fully uncover the subtleties of layout, location, and shape of their prototypes. They also understand that even the most comprehensive array of drawings for any one vessel contains limitations of presentation that the real shipbuilders addressed by applying their experience of

the process to overcome. Most importantly, very few (if any) drafts or tables of offsets provide absolutely all the information necessary for the original builder to lay out and construct a vessel without the application of his own skills and experience of the process to interpolate where information is not present. Consequently, model makers must either apply their parallel experience to the process or, better yet, turn to imagery (photographs or paintings) to determine how the builders of full-size vessels solved these problems.

By this point we have realized the critical importance of accessing the most comprehensive range possible of graphical material pertaining to one's prototype. But there is still more the modeler should explore. Written records of contracts, specifications, change orders, surveyor's reports, shipbuilding treatises, official correspondence and other minutiae can add greatly to the accuracy of a prototype's reproduction. Other less commonly mined sources are logbooks, memoirs, oral recollections, letters and reports from operators; the list is limited only by the researcher's breadth of imagination (or the time available for the project!) This documentation can be essential; plans often are silent on the subject of scantlings, skin thicknesses and similar important information.

Another important element underlying great models is the makers' of their prototypes' cultural contexts. Masters seek to imbue their creations with elements of the experience and worldview of the prototypes' builders. An understanding of the society (and its norms) that generated the original ship is important when attempting to recreate it on a small scale because, as mentioned previously, at the very least the original builder had to embody his experience (a cultural artifact) within its creation. Background reading (both contemporary and historical), newsreels, newspapers, the fiction of the era, movies, and so on all add to the modeler's appreciation of the prototype and allow the craftsman to recreate it more effectively.

When we speak of research sources, all too often we think of archival collections of scale drawings. I suggest a broader perspective of the research horizon will lead to greater mastery of our craft.

— Paul E. Fontenoy