

## **THE CONTRIBUTION OF CHRISTIAN NIELSEN TO THE RECORDING OF TRADITIONAL DANISH BOAT TYPES**

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In a previous number of this Journal, the contribution of Bernhard Faerøyvik to the recording of traditional Norwegian craft was reviewed, on the occasion of the publication of a well illustrated English-language edition of his work under the editorship of Arne Emil Chistensen (*Inshore Craft of Norway*, Conway Maritime Press, 1979). In that review (Morrison 1981), mention was made of the parallel recording work that had been done in Denmark by Christian Nielsen. This work, like that of P.J. Oke and E.J. March in Britain, was crucial in that by meticulous field measurement, drawings were prepared that preserved for posterity the form and constructional details of a wide range of highly developed local craft at a time when these were vanishing fast.

Throughout most of Europe neither adequate money nor appropriately oriented museum organisations existed in the period when it would still have been possible to make really comprehensive collections of actual examples of the boats themselves. Furthermore, archives of drawings were not to be obtained merely by asking the builders, because the constructors of at least the smaller craft continued to work essentially by eye within frameworks of proportion and scantling set by experience and tradition, which were seldom committed to paper.

The traditional boats of Denmark, like those of Norway, are not only interesting and aesthetically pleasing in their own right, but offer the basis for intriguing comparisons with those that evolved in British waters. If one seeks to analyse a single boat type in isolation, it is often difficult to evaluate the interplay of the quite diverse factors that may be involved in its development. Besides the boat's primary function, and the type of sea conditions it will encounter in fulfilling this, these are likely to range from some factors as specific as the physical nature of the home shoreline (e.g. whether harbours, natural or man-made, are available; or all operations must start and end on exposed beaches), to others as wide in implication as the general social organisation, accepted attitudes and economic standing of the

community to which the boat's owners and operators belong. Regional comparisons of boat types, with studies of the contrasts and similarities in the ways the operator's problems have been solved, can yield insights that help set a perspective against which the overall interplay of influences in its evolution may be assessed.

The publication of Faerøyvik's material covered part of the spectrum of Scandinavian boat types that it is interesting to compare with the craft of British waters, particularly those of our Northern and Western Isles. However, for those interested in the vessels of our North Sea province, there is much to be gained from a study of the boats developed by the Danes, along coasts of markedly different physical and human geography from those of Norway. It is thus felicitous that hard on the heels of the publication of the English edition of the Norwegian work, a translation by Erik J. Friis of 'Danske Bådtyper: Opmålt og Beskrevet af Christian Nielsen' (Copenhagen 1977) has been made available by Stanford Maritime Press (1980, at £7.95) under the title 'Wooden Boat Designs: Classic Danish Boats measured and described by Christian Nielsen'.

The period of the first World War brought great changes in the form of small craft in Denmark as elsewhere. Superimposed on the increasing use of motors was the boom in fishing due to the wartime pressure on food supplies, and bigger boats of new designs came into use. By the 1930s, there was concern that the older types of vessel might disappear unrecorded, and on the initiative of Knud Klem and Knud Hansen, the Danish Maritime Museum at Kronborg Castle started to make a register of them. As was so often the case, they had neither the money nor the space to acquire boats physically in any numbers, but with the aid of a subsidy from the Tuborg Fund they employed Nielsen as a fieldworker, to measure and describe characteristic types.

The project began in the late 1930s. Christian Nielsen was then a professional boatbuilder, following in the long family tradition of his ancestors on the island of Fejø, and he had already studied naval architecture under Knud Hansen, who was then the Museum's consultant on maritime technology. Through a series of preliminary studies, he developed an accurate but relatively quick (and thus economical) system of measurement and recording.

Just as Bernhard Faerøyvik had done in Norway, he then spent his vacations for many years systematically covering the coastline of his country. Each summer he would select a stretch and set off by train to its far end, complete with measuring gear, baggage and bicycle. He would then work his way homewards, cycling from village to village down the coast investigating the local boats, interviewing their owners, taking his measurements and writing descriptions.

During his main campaign, which was spread over some fifteen fieldwork seasons, around eighty vessels were measured. Later others were added, bringing the total up to about the hundred mark. Though a few gaps remain, the museum has defined these and hopes to secure measurements of the types that are still missing.

Because of the limited resources and the time pressure if the evidence was to be obtained before the old boats disappeared, the Danes like the Norwegians very sensibly gave precedence to measurement and recording, rather than drawing-up and publication. In 1947, towards the end of his career Faerøyvik had retired from teaching to take up a special curatorship in boatbuilding history established by the Norwegian Museums Association so that he could work up his material. Similarly, in 1953 Nielsen was employed as curator and ship model builder by the Danish Maritime Museum, where he was then able to complete the working-up of plans from his measurements. The preparation of the material for eventual publication was begun in 1968, with Nielsen being joined by Palle Christiansen (also a boatbuilder), working under Knud Klem and Dr. Henning Henningsen.

Since definitive publication is a large task and will require yet further time and money, the Museum decided to make a selection of the material available to the public in Denmark and beyond by publishing the books that have now appeared. The Danish and English editions both centre round drawings of the lines and construction of forty-one vessels. These have been chosen with care to give a representative sample of the most characteristically Danish of the smaller boat types in use during the sixty years between 1870 and 1930. The format of the book (215 x 280 mm) is very similar to that used for the Faerøyvik publication (210 x 300 mm), though a matt paper is used in this case. Although, again, fine linework sometimes fades a little, the standard of reproduction of the drawings is generally very satisfactory. The use

of double-spreads is avoided here too, to prevent the disruption of plans by the binding, and once more this feature will be particularly appreciated by those interested in making measurements from the draughts for quantitative studies or for modelmaking. As with the Norwegian selection, those who build boats in miniature will find many attractive subjects.

Each set of drawings of a vessel is accompanied by a short description of its nature and the way that it was used, supported by reproductions of contemporary woodcuts, lithographs, sketches or photographs. There are also short but useful introductory notes on topics such as boatbuilding and fishing practices, the formation of fishermen's organisations, and the introduction of motors. It is good to see this last topic being covered specifically, when so often other researchers have confined themselves either to the 'pure' sailing and rowing craft of that period, or to the history of metal-hulled steam vessels. This division of interest has tended to lead to some neglect of the very real conceptual and technical problems of the transition involved in adapting the long-standing and highly evolved traditions of wooden hull construction to take proper advantage of the advent of internal combustion engines. Yet it is this transition that has provided the root-stock for the development of many of the inshore craft of the half-century following on from the nominal 1930 terminus of Nielsen's collection.

The material presented includes section on sailing coasters and service vessels of various kinds, which allow interesting comparisons to be made between Danish sailing barges or pilot boats and their British equivalents. However, at the period in question, the fisheries represented the most important industry of the coastal population of Denmark. Nielsen's work and the composition of the publication reflects this. The majority of the book is given over to a succinct but clear exposition of the different types of fishery in which the Danes were then involved, from the Baltic to the North Sea, examined in terms of the distinctive kinds of boat that they used.

In general, the nature of each boat type shows a fairly obvious and consistent relationship to the type of fishing for which they were intended, and to the kind of sea conditions and coastline that formed their 'operational envelope'. It was however suggested above that comparative studies can be useful for establishing a perspective against

which the varying interplay of environmental and cultural elements may be evaluated. Nielsen's work on the Denmark's North Sea coast provides an interesting example of this

Natural conditions there are fairly uniform. Much of the west facing coast of the country consists of low-gradient sandy beaches, with out-lying sandbars that form dangerous shallows parallel to the shore. There is no protection from the prevailing on-shore winds, and the swell and breakers are often very powerful. As the fisheries consultant C.F. Drechsel put it, writing of the fishing boats of the area in 1888 (quoted in Nielsen, p. 90), "due to the lack of harbours and places of safety they must be built in such a way that they can be pulled up on shore ... and the fisheries are conducted so close to shore ... that decked vessels are not needed"

It is true that as Nielsen's work confirmed (op. cit. p. 92) "Fishing from small boats has been the rule along the entire North Sea coast, and the boats had to be so small that they could be hauled up on the beach by one or two men". However, though the individual boat types are all certainly highly adapted to the problems of this coastline, when they are compared one with another they can hardly be considered as a vindication of simplistic environmental determinism. On the contrary, "The relations between natural conditions and man's activities and tools illustrates a problem that exists wherever man utilizes natural resources. The cultural geography of Denmark's west coast, facing as it does the North Sea, is, as far as the boats are concerned, quite complicated but very interesting..."(p. 90). "We might suppose that these rather uniform natural conditions along Denmark's west coast would result in somewhat the same kind of boats being built. The logical thing would have been for the fishermen, after having fished in the same areas for hundreds of years, to have arrived at the best type of boats in regard to seaworthiness, suitability, ease of handling, and price. This however is not the case, for the types of boats being built prior to the turn of the century had only two things in common: they were modestly equipped and they were low-priced. Flatners and boats with both flat bottoms and pronounced keels were used and hauled up on land when the work was done" (p. 92). He then goes on to document this with a range of plans of contrasting vessels from that coastline, and also shows that the situation was a dynamic one, with the fishermen in several communities seeking to improve their boats in different ways, not least by adapting ideas drawn from craft from quite

distant regions.

Altogether, then, the Danish and Norwegian museums together with their British publishers are to be congratulated on producing books that are immediately attractive, while offering through their scale drawings a wealth of specific and reliable data that invite long-term study. It is to be hoped that this will encourage similar presentation of some of the as yet unpublished sets of British boat plans.

Nielsen, C. 1980, *Wooden boat designs: classic Danish boats measured and described by Christian Nielsen*. Stanford Maritime Press, London, 162pp.

Morrison, I. 1981, Bernhard Faerøyvik's contribution to the documentation of Norwegian inshore craft. *Northern Studies* 17, 3-8.