



Some Seventeenth-Century Vessels and the Sparrow-Hawk

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When the *Mayflower* dropped anchor on 10 November, 1620 [Old Style], at the tip of Cape Cod, what is now Provincetown's Harbor, the episode of transporting the Pilgrims across the Atlantic ended. A whole new problem faced the colonists, who literally had no place to go. Thwarted by the Nantucket Shoals in their attempt to reach their intended destination near the mouth of the Hudson River, the colonists were forced to make exploring trips in the shallop carried on the *Mayflower* in cutdown form. The shallop was in such poor condition that the carpenters required sixteen to seventeen days to make her seaworthy again.

Among the minor mysteries of the early days at Provincetown is the recorded statement that while the Pilgrims were there, timber was sawed for another shallop. Was this shallop ever completed? Was the tinder used for firewood during the first dreadful winter? Did it go to England in the *Mayflower*? There may be some evidence that it was completed. In July, 1621, when John Billington was found after he had wandered in the woods for five days, "a" – not "the" – shallop was sent to bring him back, implying that more than one was available.

Located in a wilderness with no known settlements to which they could turn for help, the Pilgrims had only their shallops for fishing and trading ventures. Because the *Speedwell* had failed to make the Atlantic crossing, the Pilgrims were deprived of a larger vessel. Quite early, the Pilgrims went north to trade with the Massachusetts tribe and so became acquainted with the present Boston Harbor. Living in an age when adventurers sail across the Atlantic in ten-foot dinghies, we should not be surprised at voyages of considerable length along the New England coast in open shallops.

Constantly in fear of incursions by the French or Spanish, a threat which their fort was intended to repel, the Pilgrims were surprised near the end of May, 1622, when they saw a strange shallop offshore. She proved to be from the ship *Swallow*, which had been fishing near Monhegan and which later went to Virginia where she and her catch were sold. The shallop brought letters and seven new colonists. By sailing in company in one of the colony's craft back to Maine, Edward Winslow found a source of supply in the British fishing fleet. From then on, he, Standish, Allerton, and others sailed via Maine en route to and from England in ships of the fishing fleet.

In a joint venture in one of Thomas Weston's ships to Cape Cod to seek corn and other food, one of the Plymouth shallops was lost. The colonists formed several crews of six or seven men and kept the remaining shallop in constant use fishing.

In 1624, the Plymouth Colony received a trained shipwright who unfortunately died during the hot

summer. He did, however, construct two shallops and a lighter. Timber that he had cut for two ketches was lost because there was no one in the colony capable of setting up the frames and completing the vessels, and years passed before he was replaced. These are the only ketches mentioned in William Bradford's history, *Of Plymouth Plantation*, so we need not consider the type further.

After the successful harvest of 1625, a shallop loaded with corn was sent up the Kennebec River to trade with the natives. Having no larger vessel, the Pilgrims employed one of the shallops built in 1624, fitting her with a partial deck to keep the corn dry. The shallop's crew, however, had no shelter from the weather.

Let us define these early shallops as open, heavily-built, double-ended work boats propelled by both oars and sails; they were employed for inshore fishing and for limited coastwise trading. A trip to Maine was common, but a voyage to Jamestown would have been undertaken only in an emergency. These shallops would have carried a single-masted fore-and-aft rig or a two-masted square rig; the latter became the standard rig for the later New England fishing shallops.

In 1623, the Plymouth Colony received the newly-built forty-four-ton pinnace *James*, which caused nothing but trouble. Often referred to as the *Little James*, the "little" was more a description of her size than part of her name. Shortly after the pinnace's arrival in the New World, she was sent around Cape Cod to trade with the Narragansetts. This venture produced little profit, for the Dutch had been there earlier with better goods. On her return to Plymouth, the crew of the *James* were forced to cut away her mainmast to avoid being cast away on "Brown's Island," now Brown's Bank, just outside the northern end of Plymouth Beach.

A new mast was made and fitted during the winter and early in March, 1624, the *James* was sent to Maine to fish at a fishing station established at "a place near Damarin's cove." This may have been at Newagen, where a fishing station had been established in 1623, or even Pemaquid. Here the pinnace was driven ashore in a bad storm; rocks made holes large enough that "a horse and carte might have gone in." The *James* later sank in deep water. Raised and repaired, the Pilgrims decided that the *James* had cost them too much so they sent her back to England.

Sent out again in 1627, by the Plymouth colony's merchant backers in London, the *James* was loaded with fish – "as full as she could swime" – and also with eight hundredweight of beaver skins that Winslow was under bond to send to England. The pinnace crossed the Atlantic eastbound in fine weather towed by the ship *White Angel*. When in the English Channel near Plymouth, the tow line was cast off and the *James* was immediately captured by a Turkish pirate, and all was lost.

Although trips between Plymouth and Maine in open shallops were common, the Pilgrims became increasingly aware of the hazards involved, particularly in winter. Because of competition, they found that they needed a craft capable of carrying more corn. In spite of their unfortunate experiences with the *James*, by 1626 the Pilgrims were planning on means to obtain a pinnace of some sort; to them this meant a decked vessel. The solution was to take one of the shallops, lengthen her by five or six feet, build up her sides, and fit a deck, "and so made her a conveniente and wholesome vessell, very fitt and comfortable for their use."

The colony still had no trained shipwright, but a house carpenter who had worked with the shipwright in 1624, took on the task of converting the shallop. He was successful, for the new pinnace served the colony for seven years. This same carpenter may have been the builder, in 1627, of a craft at Manomet at the head of Buzzards Bay that has variously been called a pinnace and a bark. After 1628, the Pilgrims were no longer dependent on their own resources for boats and vessels, for they could be purchased from shipbuilders located within Boston harbor, probably at Medford on the

Mystic River. There is definite record of one substantial vessel built within the Bay Colony over two years before John Winthrop's *Blessing of the Bay* which was launched 4 July 1631.

The pinnace is perhaps the most confusing of all the early seventeenth-century types of vessels. Pinnace was more of a use than a type name, for almost any vessel could have been a pinnace or tender to a larger one. Generally speaking, pinnaces were lightly-built, single-decked, square-sterned vessels suitable for exploring, trading, and light naval duties. On equal lengths pinnaces tended to be narrower than other types. Although primarily sailing vessels, many pinnaces carried sweeps for moving in calms or around harbors. The rigs of pinnaces ranged from the simple single-masted fore-and-aft one of staysail and sprit mainsail to the mizzenmast, and a square sprit-sail under the bowsprit. To confuse matters further, however, open square-sterned pulling boats were called pinnaces at least as early as 1626.

In Bradford's history, the main source of information concerning the maritime activities of the Pilgrims, a third type of small vessel was mentioned with increasing frequency after 1627. This was the bark, barke, or barque, which can be defined somewhat more precisely than the pinnace. According to a French-English dictionary of 1611, a bark was a little ship or a great boat.

It is obvious from the various references by Bradford and in John Winthrop's *History of New England* that barks were substantial decked vessels, although relatively small. A Suffolk County court case in 1672 involved a craft described as a decked shallop or bark which gives a hint of form and rig—round stern and two masts with square sails. This version can be traced back at least to the early fifteenth-century barchas sent out by Prince Henry the Navigator of Portugal to explore the western coast of Africa. Some barks, however, had square sterns, and many examples of both versions could be found all along the western coast of Europe. Complying with the definition of "small ship" there were barks of both hull forms that carried simplified three-master ship rigs. The Dutch actually had a type -- the boat-ship -- that met both definitions.

The vessel that we know as the *Sparrow-Hawk* needs no introduction; neither is it necessary to describe what is known of her coming ashore on Cape Cod in 1626, her abandonment, discovery in 1863, and subsequent history, for all this is given in Mr. H. H. Holly's booklet published by the Pilgrim Society in 1969. Certain of the facts associated with the craft appear to be instant folklore, but the presence in Pilgrim Hall of a collection of ship timbers of English oak and elm is evidence of a vessel that crossed the Atlantic and was wrecked on Cape Cod.

From the physical evidence of the timbers and the opinions of the shipwrights who reassembled the remains in Boston – Peter E. Dolliver and Sylvester B. Sleeper – the vessel was small. Her keel length was and is 28 feet 10 inches, her breadth was thought to have been nine and a half feet.

Some of the nineteenth century statements are puzzling. Considering that even in 1863 the timbers existed only to a height of four feet, one can wonder how Dolliver and Sleeper could have been sure that she had a sheer --the fore-and-aft curve of the deck – of "two and one-half feet, with a lively rise at both ends." Their knowledge of ancient rigs was such that they stated, "The rig common to a vessel of her size at the time she was built consisted of a single mast with a lateen yard and a triangular sail." There is no evidence that English vessels of the early seventeenth century ever carried such a single-masted rig.

The wreck remains were also studied by one of Boston's famous naval architects, Dennison J. Lawlor. He produced a lines plan which showed the form of the vessel and a rigged model that had two masts. The forward or main mast had a single square sail and the after or mizzen mast carried a lateen sail. Other models having a similar rig have been constructed. Assuming that the timbers of the vessel have been assembled correctly – and holes for fastenings indicate that this must be so – all of

these rigged models ignored the position of the mast step in the keelson, the mainmast being too far forward.

When Dan Sanders offered to construct a model to represent the *Sparrow-Hawk* as a companion to the R.C. Anderson model of the *Mayflower* in Pilgrim Hall, there immediately rose the questions of her dimensions, shape, and rig in light of research since 1865, when Dolliver & Sleeper and C.J. Lawlor submitted their reports. Dimensions of the small English vessels of the early seventeenth century are scarce; the nearest to those of the *Sparrow-Hawk* currently available are those of one built at Rye in 1609. Her keel length was 33 feet, breadth at midship beam 16 ½ feet and depth 11 feet. Based on her proportions, the depth of the *Sparrow-Hawk* would have been but eight feet.

It was decided to use the Lawlor lines plan but to reduce the depth to about eight feet, and instead of his sheer line "with a lively rise at both ends," the more common arcs of circles were employed. Paintings of small square-sterned vessels of the period nearly always show an overhang aft instead of the flat transom with an outboard rudder of the Lawlor model. An overhanging stern and the results of the other changes can be seen on the new model.

The most obvious difference between the model built by Mr. Sanders and earlier conceptions of the *Sparrow-Hawk* is the rig, which does take account of the location of the mast step. In effect, this location limits the rig to two possibilities although some lively arguments could develop on this point – simple three-masted ship rig or the two-masted square rig carried by early seventeenth-century barks.

Bradford started his account of the 1626 wreck – "There was a ship..." but whether he used the term "ship" in the general or the particular sense we will never know. Writing some months after his short visit to the wreck site he had no need to be precise about type and likely used "ship" in the general sense of a decked vessel larger than a boat. Actually, some naval long boats of 1626 would have been longer than the *Sparrow-Hawk*, almost as wide, but only about half as deep.

Although marine artists of almost any period tend to concentrate on depicting imposing naval and merchant ships, small vessels of the seventeenth century were not neglected. The majority of pictorial evidence favored the two-masted square rig for the new *Sparrow-Hawk*. In light of the earlier definitions, what should the ship be called? It is decked and square-sterned, so obviously cannot be a shallop. She perhaps could serve as a pinnace, but is probably a bit too chunky in shape. Therefore, in conclusion, we have the bark *Sparrow-Hawk*.

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