

A clue to the terms and source of the timbers is provided by the drawing of a ship driven on to the beach and below it, *'The place where the hoye was cast away.'* A hoy was a merchantman and coaster, its rig changing with time. Here the vessel is depicted with a bowsprit and mainmast with a sprit. Its transom has two ports. *'Futties'* (futtocks)<sup>6</sup> are the upper components of the frames (ribs) of a ship and had doubtless been salvaged from previous vessels driven ashore here. *'Hog groynes'* were no doubt from the same source; one use of the word *'hog'* is for the inboard component of a keel, the long and strong stiffener in a ship.

Not all the seaward walls were now adequate. In addition to the wall blocking the northernmost limit of Stony Ditch Creek which prevented storm water from flowing into it, the existing sea wall to the north of the main breach was not sufficiently high to prevent Tilletes Marsh from being inundated, *'This wall must be raised about 3 Foot & his foot made proportionable'*. The wall is shown curving across the marsh to join the existing river wall to create a defence along the north-east side of the breach. Like the other walls it is shown flanked by piles, represented by tiny dots.

On the south-west side there is no wall and it seems certain to have been destroyed by the sea, leaving only the redundant section by Stony Ditch. The two cross walls show that this has been a vulnerable section of the Ness for some time. The 36-acre area between them has an outfall from the Ore crossing it, which has been deflected southwards along the top of the beach. Norden recommends that *'This grounde .... muste become Salte marshe or of the nature of Salte because this will.. the downe [?] when the Breaches are out [?] of the wall because everye tyde will overflowe it'*. He shows outfalls on the river side here, *'there must be the outgate of the water eyther floude gate or cutting the wall. Which is to be duly considered'*. The existing drainage is inadequate: *'Two little gutters alreedy which can utter little water'*.

In the right hand corner of the map Norden placed his 'triple computation' recommending what work needed to be done. He himself used a 16½ foot rod, but needed to be aware of local variations when estimating quantities. Unfortunately this portion is damaged but the first three sentences read: *'It is to be noted that they comonly accompte the measure of the wall 18 foot rodd. at this rate. and then will the number of the roddes be less by 2 R. which will amount to ..£12. So that the charge of the worke will be between 150 and £160 as it is supposed besides the sluice or flood gate.'* Sheet XXIII of the survey of the whole estate must have been drawn up the following year since a portion of the *'new intended wall'* has now been built. It also shows the two areas of marsh smothered by the invading shingle. By this time William Holwys and John Cooper were farming the marshes and the former marsh names were no longer used.

Two other aspects remain. Firstly, in addition to the wrecked hoy there are two vessels in the river, and one may suppose that they were drawn from life in contrast to the ships sprinkled over the sea as decoration in the carefully finished survey volumes. Both are sailing upstream with a strong south-easterly wind filling their sails.



Details showing: (Left) a three-masted merchantman sailing up-river (original 19mm high); (Right) a spritsailed merchantman. Some paint has flaked off the mould-damaged vellum (original 16mm high)