Note

Identification of the words 'singla' and 'albaola', and their relation to timbers found on 15th-century Spanish shipwrecks

Between 1607 and 1618, the government of Philip IV of Spain issued a series of ordinances in an attempt to standardize and regulate ship construction for the carrera de las Indias. Because the regulations were promulgated for shipowners and shipwrights, the ordinances were written in a very straightforward style with the assumption that the reader would have complete command of the vocabulary used in the document. Unfortunately, over the centuries the terminology for specific items has disappeared from use. Two such terms are the words 'albaola' and 'singla' which appear in Paragraphs 27, 29 and 30 of the regulations in a section entitled 'Todos los dichos Galeones Navíos, y Pataches se han de fabricar con las Fortalazas siguientes'. A transcription and translation of these paragraphs follow:

27 Han de llevar dos andanas de Singlas por las cabezas de las Varengas, y por las de los pies de Genoles, todas endentadas, y ajustadeas, porque no juegan las cabezas, que es la llave de las fábricas.

29 El plan, y Piques de Popa á Proa han de ir llenos de cal, arena, y cascotes de guijarro menudo, entre Quaderna, y Quaderna, y encima de ellas se ha entablar el Granel de Popa á Proa, hasta llegar á las Singlas de las cabezas de las Varengas: y por encima de esta Singla ha de ir una tabla bien ajustada, que servirá de Albaola, y en ella la escoperada del Granel, encima del qual han ir las taquetes de la Carlinga endentados, y enmalletados en las propias tablas de el Granel, que alcancen hasta la Singla, que va por las cabezas de los pies de Genoles, con su diente en la propia Singla.

30 Las Albaolas han de ir á tabla en salvo, desde abaxo hasta arriba, con su Albaola, debaxo de todas Liernas, ó Durmentes.

27 They should carry two runs of singlas along the wrungheads, and by the feet of the futtocks, all mortised, and well-fitted, so the wrungheads have no play, which is the key to construction.

29 The floor and crutches from bow to stern are to be filled with lime, sand and rubble of small pebbles, between the frame and the next, and the top of them (the floors) are to be planked from stern to stem, up to the Singlas at the wrungheads, and outboard of this clamp is to go a well-fitted plank that will serve as the

Albaola, and on it the escoperada of the ceiling planking, on top of which [the ceiling planking] go the mortised mast buttresses, mortised into the ceiling planking, which reach up to the clamp which goes along the heads of the first futtocks, with a tenon in the clamp itself.

30 The Albaolas are to go as a indented plank from bottom to top, with the Albaola below all deck shelves and knees.

The word 'singla' does not appear in any of the Spanish nautical dictionaries including those of Garcia de Palacio (1587), Marques de la Victoria (1756), and O'Scanlan (1831). Based on paragraph 27 of the regulations, the singles appear to be clamps or thick stuff, and not footwales, since the language suggests the singlas were to be notched and securely fastened, and thus were to play a structural role. The term 'andana' simply refers to a run of a clamp. Smaller vessels were required to have only one andana, while larger vessels were required to have two, as referred to in these regulations. The 'dos andanas' stipulated in paragraph 27 simply refers to two clamps side by side (Fig. I shows only one run). The use of several runs of thick stuff or clamps, as stipulated in this regulation, was common in the 17th century in British and French warships.

The word 'albaola' is somewhat more problematic. The word in the 1791 Recopilación of these laws spells the word 'alboala', but microfilm of the original text shows the word spelled 'albaola'. The latter spelling will be used in this note. Regardless of the correct spelling, neither of these spellings appears in any of the dictionaries. Paragraph 29 states that the albaola is to be placed by the top of the singla, which appears to mean outboard of the ceiling planking and the clamp. The paragraph states that the albaola was to be fitted with 'escoperadas'. The term 'escoperada' is identified in both Garcia de Palacio and in O'Scanlan as being a type of filler plank fitted between frames to prevent either water or garbage from getting down in between them. The fact that the piece was associated with

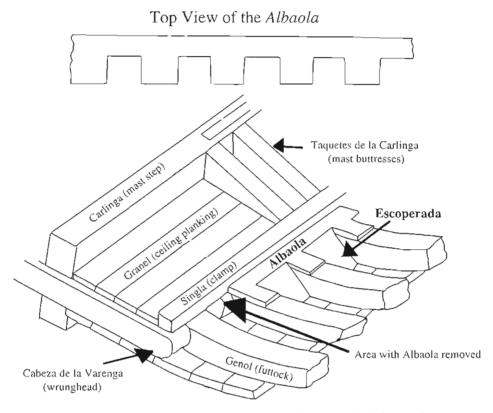


Figure 1. A reconstruction based on paragraphs 27, 29 and 30 of the Recopilación de Leyes de Los Reynos de las Indias showing the position of the singla and the albaola.

these filler planks placed between the frames indicates that it was outboard of the ceiling planking and the clamps. Finally, the regulations state that the albaola had to be outboard of the 'taquetes' (mast buttresses) and lower than deck shelves and knees. This shows that the plank was not a type of waterway. Paragraph 30 briefly describes the albaola as a long notched plank.

A plank, similar to the above description, has been found on several 16th-century ships which have been excavated. In the case of the Highborn Cay and the Molassas Reef wrecks, a series of planks were found shaped so that they fit on top of the futtocks just above the wrungheads, and were butted up against the clamp. Several escoperadas were found intact, fitted perfectly into the notched plank on top of the futtocks. This positioning matches exactly that described for the albaolas in the regulations. A similar plank has been found on the Red Bay wreck,

again in the approximate position of the edge of the ceiling planking and at the wrungheads.

Based on the description in the regulations and on the finds at the Highborn Cay and Molassas Reef wrecks, it appears likely that the albaola was a notched plank set so the teeth fit on top of the futtocks with the notches located over the gap between the frames (Fig. 1). The plank formed a ledge which the short escoperadas could be leaned up against and not leave a gap, as would occur if they had been leaned against the singla. The albaolas and escoperadas together formed a system for preventing garbage from getting down between the frames and into the ballast where it could clog the water channels.

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