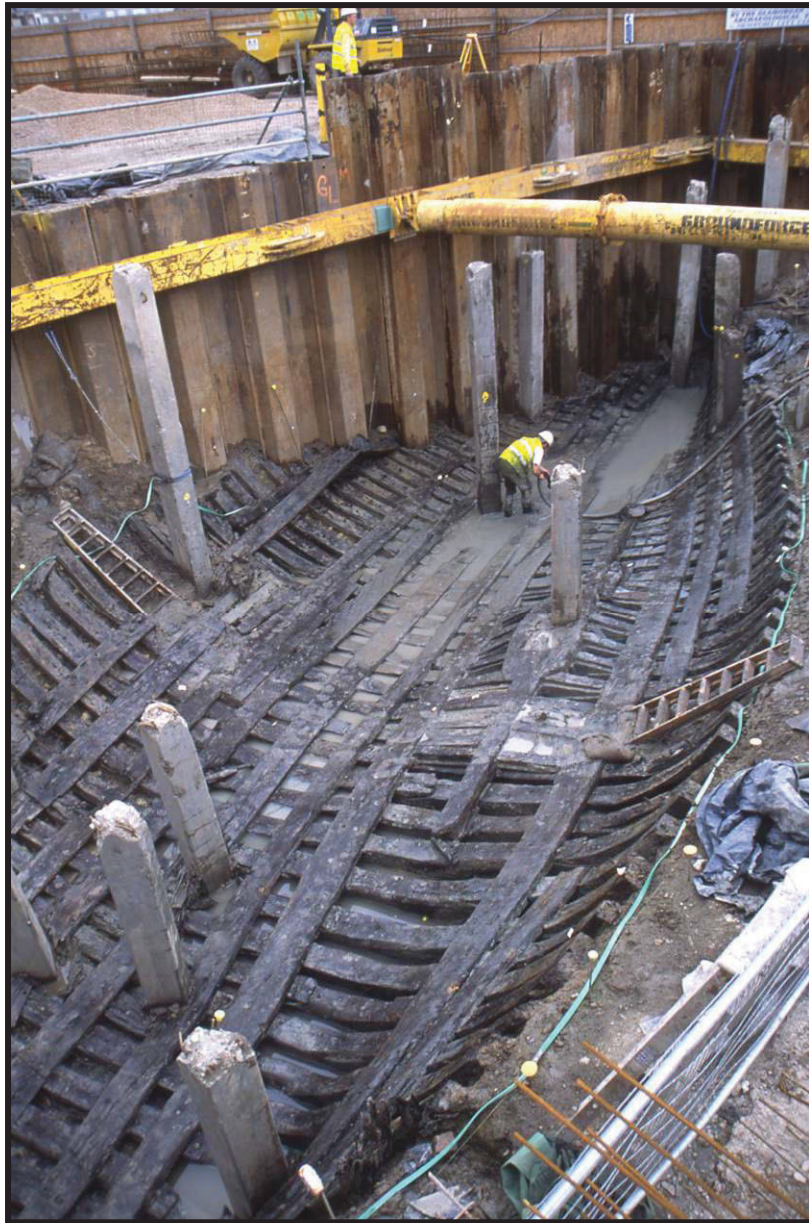


Newport Medieval Ship Project

Specialist Report:

MOLLUSCS



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The Newport Ship Project

Introduction

In 2002, during the construction of the Riverfront Theatre, on the banks of the River Usk in Newport, South Wales, an archaeological find of great significance was unearthed. In the summer of that year, while undertaking the excavations for the theatre's orchestra pit, the well-preserved remains of a 15th century clinker built merchant vessel were discovered.

The site, which was surrounded by a cofferdam, was being monitored by the Glamorgan Gwent Archaeological Trust at the time of discovery. The ship lay in what is locally known as a pill or small inlet, with its stern closest to the river and its bow facing into the inlet. The timbers were covered in thick alluvial mud, which created an ideal anaerobic environment for successful preservation. Seventeen strakes of planking remained on the port side and thirty-five on the starboard side of the ship. The vessel was approximately 30m in length.

A silver French coin was found purposely inserted into the keel of the vessel, dating the ship to after May 1447. Dendrochronological research has shown the hull planking to be from the Basque country and after 1449 in date.

After a much publicised 'Save Our Ship' campaign, it was decided that the ship would not be recorded and discarded but excavated with the aim to conserve. The riders, stringers, braces, mast step, frames and overlapping clinker planks and keel were dismantled one by one and lifted. Almost 2000 ship components as well as hundreds of artefacts were excavated.

This report and catalogue examines and lists the molluscan assemblage excavated from the Newport Medieval Ship site.

MOLLUSCAN SHELLS FROM THE NEWPORT MEDIEVAL SHIP

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The vast majority of molluscan shells retrieved from the ship are of oysters with relatively fewer specimens of mussels, whelks and assorted molluscs represented by very few specimens. All of the shells are of species that can be found within the Bristol Channel. It is difficult to extrapolate the environmental conditions from those found in the Usk estuary today to those during the medieval period. Comments here on the likely hood of the shells found being contained within the ship or colonising the ship after it had sunk are based on today's conditions.

Oysters (*Ostrea edulis*)

All of the oyster shells have been identified as the Native Oyster, *Ostrea edulis*. This oyster has a European range along the Atlantic coasts. It was abundant in near shore waters including those of the Bristol Channel right up to the beginning of the 20th century. It was a staple, poor man's food prior to its decline through over exploitation and destruction of the oyster beds by dredging.

It will tolerate fully and lowered salinity conditions, but it would not be expected in the Usk Estuary today. Spat settle on hard surfaces and could colonise sunken vessels. In normal conditions, the young settle and attach to larger or dead shells and thus when gathered small and large shells will be attached to each other.

Many of the shells are large enough and in enough numbers to be considered as food items. Oysters are collected primarily by dredging and in doing so other shells will be taken, both alive and dead. Many of the other shells found could be taken from oyster dredgings.

Whelks (*Buccinum undatum*)

The Common Whelk has a wide range from the subarctic to the Iberian Peninsula. It can be found at low tide but is generally an offshore species. This is how we view its distribution today but it has also been exploited for centuries during which time the intertidal populations will have been most vulnerable.

Only three shells were identified but as with the oysters we would not expect to find whelks living in the estuary at this level today.

Mussels (*Mytilus edulis*)

The Mussel is represented by few specimens, mostly fragments and of a small size. The range is large, along all European coasts. It is an important food item but the numbers and sizes found suggest that its occurrence on the ship is accidental or secondary. Oyster dredgings could easily contain mussel shells. Small mussels could be part of the fouling community from the hull.

Cockles (*Cerastoderma edule*)

Although a common intertidal bivalve and present in large numbers in muddy-sand inlets in the Bristol Channel and across Europe only a few small shells and fragments were

present. These could have been from amongst oyster dredgings or are secondary but cockles are not present in that part of the estuary today.

Limpets (*Patella vulgata*)

Another food species, but only one fragment is present. This fragment could have come from oyster dredgings, or is secondary in origin.

Dog Whelk (*Nucella lapillus*)

A common intertidal species found on rocky shores or where barnacles (its preferred food) are common. Its presence with the ship could be related to barnacle fouling on the hull or again could have come from oyster dredgings.

Needle shell (*Bittium reticulatum*)

This is a common intertidal species across Europe. It could have come from oyster dredgings or is secondary but would not be found living today in the Usk estuary.

Mud snail (*Hydrobia* sp.)

Mud snails occur in large numbers in the Severn Estuary and could be living at the site of the ship.

BARNACLES

It is unfortunate that the barnacles could not be identified. Identification depends heavily on the structure of the apical plates, which were absent from all of the specimens.

Maesglas No	Site No	Context No	Material Group	Description	Position in the ship		Identification (NMW)	Common name	Quantity
205	467	130	Shell	Mussel Shell	F20-26	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 broken valve
206	467	130	Shell	Shell	F2-3 Port.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 broken valve
207	467	130	Shell	Shell	F7-8	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	3 valves
208	467	130	Shell	Shell	F8-9	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
209	467	130	Shell	Shell	F9-6	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve whole, 1 valve broken
210	467	130	Shell	Shell	F22-23	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
						Mollusca	Probably <i>Ostrea edulis</i>		2 fragments
						Mollusca	<i>Mytilus edulis</i> Linnaeus 1758	Common mussel	2 broken valves
211	467	130	Shell	Shell	F23-24	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
212	467	130	Shell	Shell	F23-24	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
213	467	130	Shell	Shell	F23-24	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	2 valves
214	467	130	Shell	Shell	F23-24	Mollusca	<i>Mytilus edulis</i> Linnaeus 1758	Common mussel	1 fragment
215	467	130	Shell	Shell	F24-25	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	3 valves
216	467	130	Shell	Shell	F25-26	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
						Mollusca	Probably <i>Mytilus edulis</i>		1 small fragment
217	467	130	Shell	Shell	F25-26 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
218	467	130	Shell	Shell	F27 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
219	467	130	Shell	Shell	F27-28 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
220	467	130	Shell	Shell	F28-29 Port.	Mollusca	<i>Mytilus edulis</i> Linnaeus 1758	Common mussel	3 larger fragments, 4 tiny ones also appear to be broken from larger ones so same species
221	467	130	Shell	Shell	F28-29 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	2 valves
222	467	130	Shell	Shell	F28-29 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
223	467	130	Shell	Shell	F29 Stbd.	Mollusca	Probably <i>Ostrea edulis</i>	Edible oyster	1 small fragment
224	467	130	Shell	Shell	F29-30	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 broken valve
						Mollusca	<i>Mytilus edulis</i> Linnaeus 1758	Common mussel	1 broken valve & nacre pieces
225	467	130	Shell	Shell	F29-30 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
						Mollusca	<i>Mytilus edulis</i> Linnaeus 1758	Common mussel	1 valve & 2 fragments
226	467	130	Shell	Shell	F30-31	Mollusca	Probably <i>Ostrea edulis</i>	Edible oyster	1 fragment
227	467	130	Shell	Shell	F30-31 Stbd.	Mollusca	<i>Mytilus edulis</i> Linnaeus 1758	Common mussel	2 small fragments
228	467	130	Shell	Shell	F31-32 Port.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 broken valve
229	467	130	Shell	Shell	F31-32 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 broken valve & 1 fragment
230	467	130	Shell	Shell	F32-33	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 large fragment
231	467	130	Shell	Shell mussel	F32-33 Port.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 broken valve
232	467	130	Shell	Shell		Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	4 broken valves
						Mollusca	<i>Mytilus edulis</i> Linnaeus 1758	Common mussel	1 broken valve
233	467	128	Shell	Shell	F24-25 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
234	467	128	Shell	Shell		Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	4 valves
235	467	120	Shell	Shell	F29-35	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 fragment
						Mollusca	Probably <i>Ostrea edulis</i>		4 fragments
236	467	120	Shell	Shell	F35-36/ S5 (?)	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve & 2 fragments
237	467	152	Shell	Shell	F6-7	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	3 valves
238	467	152	Shell	Shell	F10-11	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 fragment
239	467	152	Shell	Mollusc Shell	F27-28 Stbd.	Mollusca	<i>Cepaea cf. hortensis</i> (Müller, 1774)	White lipped snail	1 fragment with part of lip
240	467	152	Shell	Shell	F51-53	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
241	467	u/s	Shell	Shell	F39 Stbd.	Mollusca	<i>Buccinum undatum</i> Linnaeus 1758	Common whelk	1 shell
242	467	145	Shell	Shell	F40-41 Stbd.	Mollusca	<i>Buccinum undatum</i> Linnaeus 1758	Common whelk	1 shell
						Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	2 valves
243	467	169	Shell	Shell	F56 Port.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	5 fragments
244	467	129	Shell	Shell		Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 fragment
245	467	2027	Shell	Shell	circa wood 231	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 fragment

Maesglas No	Site No	Context No	Material Group	Description	Position in the ship		Identification (NMW)	Common name	Quantity
246	467	1001	Shell	Shell		Mollusca	<i>Buccinum undatum</i> Linnaeus 1758	Common whelk	1 shell
247	467	149	Shell	Shell	F42-43 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
248	467	149	Shell	Shell		Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
249	467	149	Shell	Shell	(F?) 45 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
250	467	149	Shell	Shell	F45	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	4 valves
251	467	149	Shell	Shell	F45 Stbd.	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
266	467	130	Shell	Shell	F8-9 Stbd.	Mollusca	Unidentified shell fragment	Edible oyster	6 fragments, some tiny
695	467	1006	Shell	Shell		Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve (large frag.)
970	467	130	Shell	Shell	F7-8	Mollusca	Probably <i>Ostrea edulis</i>		49 small fragments
						Mollusca	<i>Nucella lapillus</i>	Dog whelk	1 fragment
971	467	120	Shell	Sea Shell	F25-27	Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve
						Mollusca	Probably <i>Ostrea edulis</i>		1 small fragment
						Mollusca	<i>Cerastoderma edule</i> (Linnaeus 1758)	Common cockle	2 small fragments
972	467	120	Shell	Shell		Mollusca	Probably <i>Ostrea edulis</i>	4 small fragments	
						Mollusca	Gastropoda	1 small fragment	
						Mollusca	Wood	2 small fragments	
						Mollusca	Bone possibly?	1 small fragment	
						Mollusca	Unidentified mollusc fragment	1 small fragment	
						Mollusca	Stones	31 small fragments	
973	467	152	Shell	Shell	F56-57	Mollusca	Probably <i>Ostrea edulis</i>		1 fragment
974	467	120	Shell	Snail		Mollusca	<i>Hydrobia</i> sp.		
975	467	120	Shell	Shell	F52-55	Mollusca	<i>Patella cf vulgata</i> Linnaeus 1758	Common limpet	1 large fragment
976	467	130	Shell	Tar?		Mollusca	Probably <i>Ostrea edulis</i>		16 fragments
977	467	171	Shell	Shell		Mollusca	<i>Cerastoderma edule</i> (Linnaeus 1758)	Common cockle	8 small-tiny fragments
						Mollusca	Probably <i>Ostrea edulis</i>		1 fragment
978	467	120	Shell	Shell		Mollusca	Unidentified mollusc fragment		6 tiny fragments
979	467	130	Shell	Shell	F6-7	Mollusca	Probably <i>Ostrea edulis</i>		1 tiny fragment
980	467	120	Shell	Shell and Snail	F40 + 41	Mollusca	<i>Bittium reticulatum</i> and <i>Mytilus</i> sp.	Needle whelk and mussel shell	
981	467	171	Shell	Shell	F60-61	Mollusca	Probably <i>Ostrea edulis</i>		1 fragment
982	467	120	Shell	Shell	F41-43	Mollusca	Probably <i>Ostrea edulis</i>		2 fragments
983	467	120	Shell	Shell	F35-39	Mollusca	Probably <i>Cerastoderma edule</i>		1 small fragment
						Mollusca	Probably <i>Mytilus edulis</i>		1 fragment & periostricum flake
984	467	130	Shell	Shell	F5-6	Mollusca	Probably <i>Ostrea edulis</i>		1 small fragment
985	467	120	Shell	Shell	F61	Mollusca	Probably <i>Mytilus edulis</i>		1 small fragment
986	467	120	Shell	Shell		Mollusca	Probably <i>Ostrea edulis</i>		1 small fragment
987	467	120	Shell	Shell	F29-35	Mollusca	Probably <i>Ostrea edulis</i>		6 small fragments
988	467	152	Shell	Shell	F33-34	Mollusca	Probably <i>Ostrea edulis</i>		2 small fragments
989	467	120	Shell	Shell	F27-29	Mollusca	Probably <i>Ostrea edulis</i>		1 small fragment
990	467	152	Shell	Shell	F20-21.5	Mollusca	Unidentified mollusc fragment		1 small fragment
991	467	152	Shell	Shell	F15-16	Mollusca	Probably <i>Cerastoderma edule</i>		1 small fragment
						Mollusca	Probably <i>Ostrea edulis</i>		1 small fragment
992	467	120	Shell	Shell		Mollusca	<i>Littorina obtusata</i>	Winkle	1 fragment
993	467	130	Shell	Shell		Mollusca	<i>Mytilus edulis</i> Linnaeus 1758	Common mussel	2 small fragments
994	467	120	Shell	Shell	F54-56	Mollusca	Unidentified mollusc fragment		1 tiny fragment
995	467	120	Shell	Shell		Mollusca	Probably <i>Ostrea edulis</i>		1 small fragment
996	467	120	Shell	Shell - Worm tube?	F61	Annelida	Worm Tubes - <i>Pomatocerus</i> sp.		
997	467	120	Shell	Shell	F17	Mollusca	Probably <i>Ostrea edulis</i>		1 small fragment
998	467	120	Shell	Shell	F35-39	Mollusca	Probably <i>Ostrea edulis</i>		1 small fragment
999	467	120	Shell	Shell	F54-56	Mollusca	Unidentified mollusc fragment		1 small fragment
1000	467	120	Shell	Shell	F59-62	Mollusca	Probably <i>Ostrea edulis</i>		2 small fragment
1001	467	1022	Shell	Shell		Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1large fragment
1194	467		Shell	Shell		Mollusca	Unidentified mollusc fragment		2 tiny fragments

Maesglas No	Site No	Context No	Material Group	Description	Position in the ship		Identification (NMW)	Common name	Quantity
1195			Shell	Shell from outboard	S17.4	Crustacea	Barnacle		
1196			Shell	Barnacle from outboard plank face	S3.7	Crustacea	Barnacle		
1197			Shell	Barnacle from outboard	S2.7	Crustacea	Barnacle		
1198			Shell	Barnacle from outboard	S25.A	Crustacea	Barnacle		
1199			Shell	Barnacle from outboard	S4.2	Crustacea	Barnacle		
1200			Shell	Barnacle from outboard edge of land	P3.4	Crustacea	Barnacle		
1201			Shell	Barnacle	P4.3	Crustacea	Barnacle		
1202			Shell	Barnacle From outboard face	S12.7	Crustacea	Barnacle		
1203			Shell	Barnacle Aft. End plank face	S3.6	Crustacea	Barnacle		
1204			Shell	Barnacle From outboard edge	S5.7	Crustacea	Barnacle		
1205			Shell	Barnacle	S20.4	Crustacea	Barnacle		
1206			Shell	Barnacle	S23.5	Crustacea	Barnacle		
1207			Shell	Barnacle	S17.4	Crustacea	Barnacle		
1208			Shell	Barnacle	P5.2	Crustacea	Barnacle		
1209			Shell	Mussel from outboard land	S26.3B	Mollusca	<i>Mytilus edulis</i> Linnaeus 1758 juvenile	Common mussel	2 broken valves. Dried.
1210			Shell	Shell		Mollusca	Unidentified mollusc fragment		6 small fragments
1211			Shell	Shell?		Unknown	Unidentified non-mollusc		several fragments
1212			Shell	Shell		Mollusca	Unidentified mollusc fragment		1 small fragment
1288			Shell	Oyster shell x 1		Mollusca	<i>Ostrea edulis</i> Linnaeus 1758	Edible oyster	1 valve