

UNIVERSITY OF SOUTHAMPTON

**A STUDY OF THE VARIATION IN OYSTER SHELLS FROM ARCHAEOLOGICAL SITES
AND A DISCUSSION OF OYSTER EXPLOITATION**

THREE VOLUMES

VOLUME 1

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Doctor of Philosophy

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October, 1992

UNIVERSITY OF SOUTHAMPTON

ABSTRACT

FACULTY OF ARTS

ARCHAEOLOGY

Doctor of Philosophy

A STUDY OF THE VARIATION IN OYSTER SHELLS FROM ARCHAEOLOGICAL SITES
AND A DISCUSSION OF OYSTER EXPLOITATION

by Jessica Margaret Winder

Variations in the macroscopic characteristics of Ostrea edulis L. shells from twenty-five archaeological sites in the south of England and East Anglia are described and quantified. Comparisons of size, infestation and other characters are made on an intrasite and intersite basis using both archaeological material and oysters from eighteen living populations.

Spatial and temporal variability are demonstrated in size and size-distribution of oyster samples from region to region: with larger oysters, for example, originating in the Poole region and smaller ones in Suffolk and Essex. Evidence suggests that oyster shells from coastal and rural sites are larger than shells from inland or urban ones. Mean size of shells tends to decrease with time from the Roman period but has apparently increased again this century. Infestation patterns are also shown to be specific to locality, as in the total absence of damage by Polydora hoplura in East Anglian specimens; and infestation rates have risen dramatically over the last two decades.

The analyses of shell variation and the collation of data from various sources throw new light on the natural history of the oyster in a rapidly changing environment. It also enables an archaeological assessment of the role of oysters in the economy through their contribution to diet, home and overseas trade, and the evolution of oyster culture. Five outline models are presented for the determination of the level of exploitation represented by the oyster samples.

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ACKNOWLEDGEMENTS

I owe a debt of gratitude to many people who have helped me in various ways with this research project. The top of the list must be my husband and son, Roy and John, who have had to share their home for so long with hundreds of bags and boxes of oyster shells - two tonnes of the archaeological variety still occupying the garage together with a freezer full of fresh oyster-shells complete with soft-bodied encrustations! It was Jennie Coy, formerly of the Faunal Remains Unit at Southampton University, who first introduced me to oyster shells and continued to support and encourage me over the years together with her colleagues Jennifer Bourdillon and Mark Maltby. Philip Armitage, formerly of the Osteology Department of the British Museum (Natural History) initially suggested that my work on oysters could contribute to a higher qualification and supported my application for a post-graduate research studentship. However, without the assistance of my dear friends Margaret and Hugh Todd I would not have been able to register for the place I was eventually offered at Southampton University.

Many individuals and organisations have allowed me to study oyster shells from archaeological excavations. These include Poole Museum Service (with Keith Jarvis, Dai Watkins, and the late Ian Horsey); Southampton Museums (Mark Brisbane); Wessex Archaeology (Mike Allen, Sue Davies, Peter Cox, John Hawkes, Peter Woodward); Museum of London, former Department of Urban Archaeology (Philip Armitage, Gustav Milne); National Trust (David Thackray, Nancy Grace, Martin Papworth); Isle of Wight Archaeological Committee (David Tomalin); Ancient Monuments Laboratory (Sebastian Payne, Humphrey Woods); Colchester and Essex Museum (Jeremy Heath); Centre for East Anglian Studies (Peter Murphy); Test Valley Archaeological Trust (Frank Green) and Valerie Fenwick for lending me shells from her excavations at Burrow Hill and Leiston Abbey.

Peter Walker and Denis Key of the Ministry of Agriculture, Fisheries and Food, Fisheries Directorate at Lowestoft have provided me with data, specimens and a dredging trip out in the Solent. The Fish-mongers Company kindly contributed financially to the studies and allowed me to use their library. Dr Spencer of the Marine Research Laboratory at Fawley allowed access to the archives.

I also greatly appreciate the assistance of David Davies of Sea Harvest in Poole who has let me record details of oysters straight from the boats, imparted much first-hand information about the oyster business, and supplied fresh oysters on several occasions for demonstration purposes and plain delectation. I would also like to thank Nick Bradford, Ian Farr and Sue Smith who have each helped with the production of illustrations; and Di Morton with typing.

The final and most profound thanks must be given to my supervisor Clive Gamble and my advisor David Hinton who gave me practical help throughout all my ups and downs, and would not let me give up.