The Basic Principles and Practices of Maritime Archaeology

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What is Archaeology?

• The study (i.e. identification and interpretation) of physical traces left by past ways of life.

Koster Site, Illinois
What is Maritime Archaeology?

• Broadly speaking it is archaeology that relates directly to historic and prehistoric interactions with the Oceans, the Seas, Rivers, bogs, swamps, lakes, etc.
The Basic Principles and Practices of Maritime Archaeology: Today’s Topics

The Archaeological Site and its Formation

Stratification vs. Stratigraphy

2 Main Project Types: Survey vs Excavation

Information and Insights Gained

The Big Picture
Just when you thought it was safe to...
Principles

• An Archaeological Site such as a shipwreck is a concentration of material remains which indicate how people lived in the past.
Wreck Site Formation

Bowens, 2009
Important Factors

• Nature of the Wrecking: Slow or Fast

• The Geographical and Topographical Area

• Type of Seabed: Flat and Sandy or.. Steep and Rocky..

• Depth of Seabed: Shallow or Deep
Important Factors

• Prevailing Current(s) and Wave or Tidal action

• Sedimentation Rate: Fast, Slow or Intermittent

• Level of Oxygen: High, Low or NO

• Organisms: Living and Dead
The Dreaded Shipworm

Teredo navalis
Spain, Canarias Lanzarote
NMR 37462.
Total length of tube 185 mm
Stratification vs. Stratigraphy

Stratification: the laying down of layers (strata) one above the other, like brickwork.

Stratigraphy: the study of the formation, composition, sequence and interrelations of strata.
Survey: 1st Type of Project

Survey: the systematic visual recording of archaeological remains without the removal of the materials covering and accompanying them
Survey
Survey

• Relatively Inexpensive

• Non-destructive

• Little or No need for Conservation or Storage Facilities
Survey

• Low level of Skills required

• A large amount of Territory can be covered in a relatively short period of time

• Use of Robots (sometimes)
Excavation: the systematic uncovering of archaeological remains by the removal of the materials covering and accompanying them.

Mazotos, Cyprus
It’s All About the Layers..
Excavation

Test Pits

Trench

Whole Site
Basic Tools of the Trade

Scuba Gear: allows excavators to breath and work underwater

A.D. 1500’s

1935
Basic Tools of the Trade

The Reference Grid:
Basic Tools of the Trade

(a) Hand; (b) Paint Brush; (c) Trowel

The Airlift
Basic Tools of the Trade

Recording tools: pens, drawing paper, measuring tapes
Basic Tools of the Trade

The Balloon Lift

Imax Omnimax Camera
Basic Tools of the Trade

Reliable Positioning System
Excavation

• Expensive

• Need for Conservation and/or Storage Facilities

• A Slow Time-consuming Process
Excavation

• Destructive and Irreversible

• A Large Amount of Data

• Higher Level of Skills required
Information/Insights gained from Survey and Excavation Include

- Either a Relative or an Absolute Date
- Sailing Routes
- Types of Cargo Carried
- Extent or Sophistication of Commerce/Trade/Gift Giving
Information/Insights gained from Survey and Excavation Include

• Technological Sophistication/Development

• Ethnicity of Seafarers

• Corroboration of Written and/or Pictorial Sources
The Big Picture

- Competition
- Trade
- Laws, Protection, Demand for Goods and Labour
- Taxes, Labour Market for Goods
- Ironwork, Pottery
- Natural Resources
- Food