

Archaeology & Coastal Change

Project Workshop: 29 July 2005



Garry Momber

Julie Satchell

Gavin Stone

Hampshire & Wight Trust for Maritime Archaeology

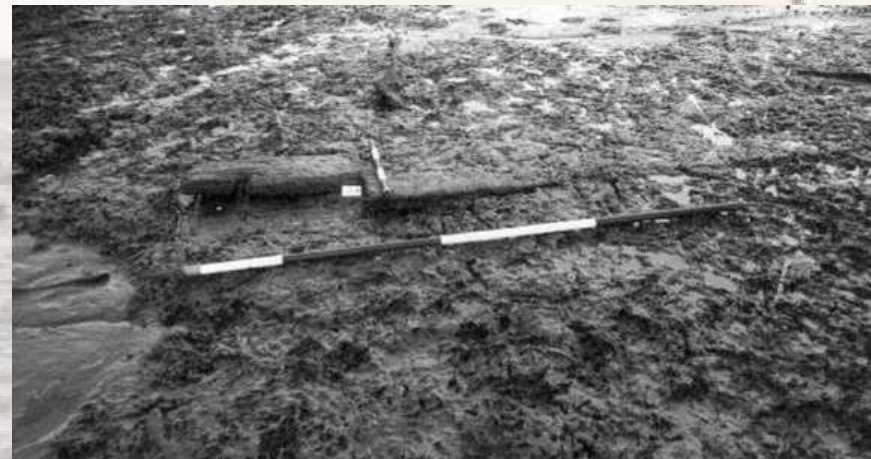


Project Introduction

Increasing awareness of long term climate change



Archaeological material can act as an indicator of the nature, scale & pace of sea level change



How can we use the resource to demonstrate what has happened and is continuing to happen to our coastline?

Aims & Objectives

Review the role and potential of archaeology in relation to coastal change within the SCOPAC region

Project objectives:

- Identify archaeological and palaeoenvironmental sediment archive through consultation with HER's and desk based research.
- Formulate and test a set of criteria for ranking the importance of sites in relation to coastal change.
- Contribute to future management strategy through:
 - Review of current coastal management and archaeology
 - Detailed consideration of archaeological and palaeoenvironmental potential through key Assessment Sites
 - Production of guidelines for the inclusion of archaeology in coastal management

Methodology

- Desk Based Review of archaeology within current SMP's
- Formulation of scoring criteria aimed at establishing a framework within which a standardised assessment of sites could be undertaken
- Collection of archaeological data from local Historic Environment Records
- Selection of ten Study Areas across the SCOPAC region which represent a range of different coastal situations
- Undertake the scoring exercise to highlight sites which relate to coastal change
- Analysis of results to identify six sites suitable for use as Assessment Sites
- Desk based review of assessment sites to highlight their potential to inform coastal management
- Analysis of results of scoring and assessment
- Production of draft guidance for best practice in relation to archaeology and coastal management

Archaeology in SMPs

- Heritage and archaeological sites within the SMPs are largely limited to sites with legal status which are perceived as important
- Fragile and ephemeral sites which lack clear and visible structural integrity are rarely included in management plans
- Archaeological sites which can offer evidence of long term environmental changes are rarely included in SMPs and rarely feature in decisions regarding coastal management

Assessing HER Data

Sites assessed by applying scoring and non-scoring criteria to HER data

Scoring criteria:

- Sea level Change
- Environmental change
- Climatic change
- Running Chronology
- Fragility

Non-scoring criteria

- Site Validation Code: An indication of current status
- Coastal policy: Taken from the current SMP prescriptions
- Coastal context: The spatial relationship of the site to the coast line
- Coastal type: Geomorphological definition of coastal zones

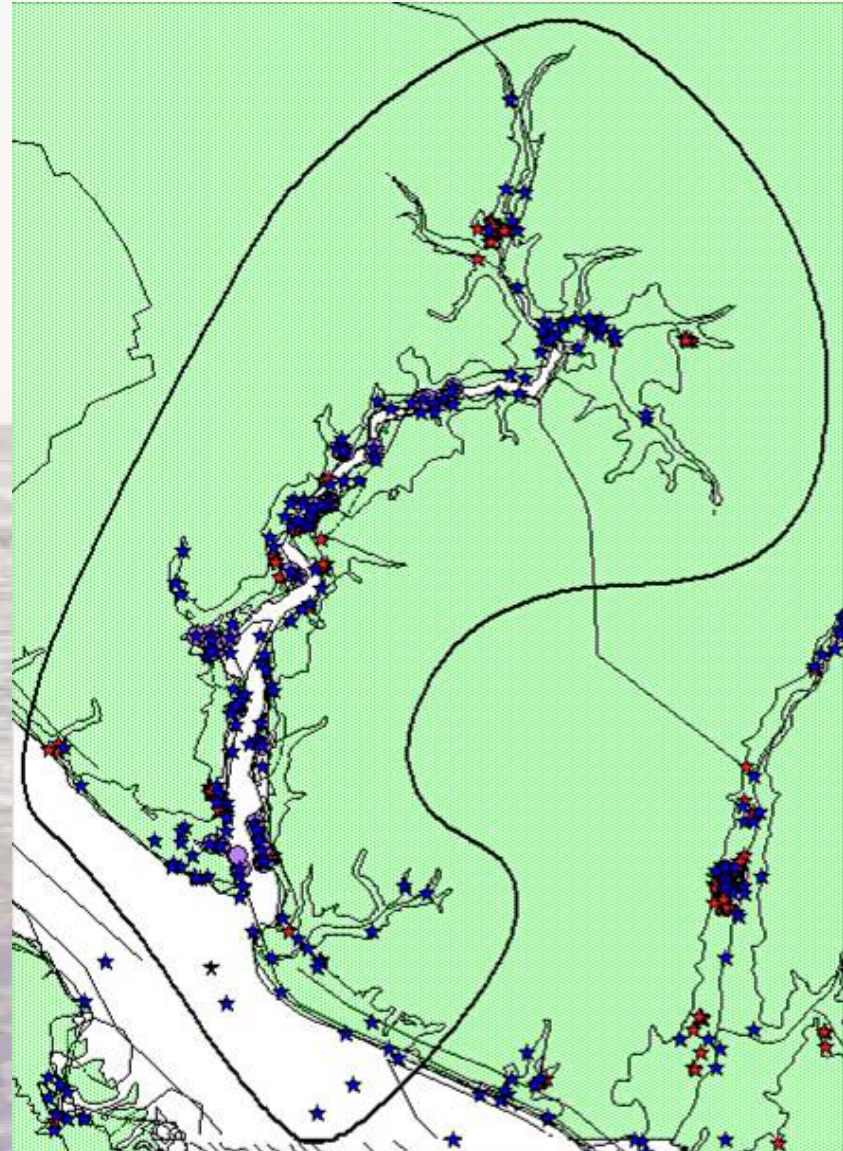
The Study Areas

Ten areas were chosen from the SCOPAC region



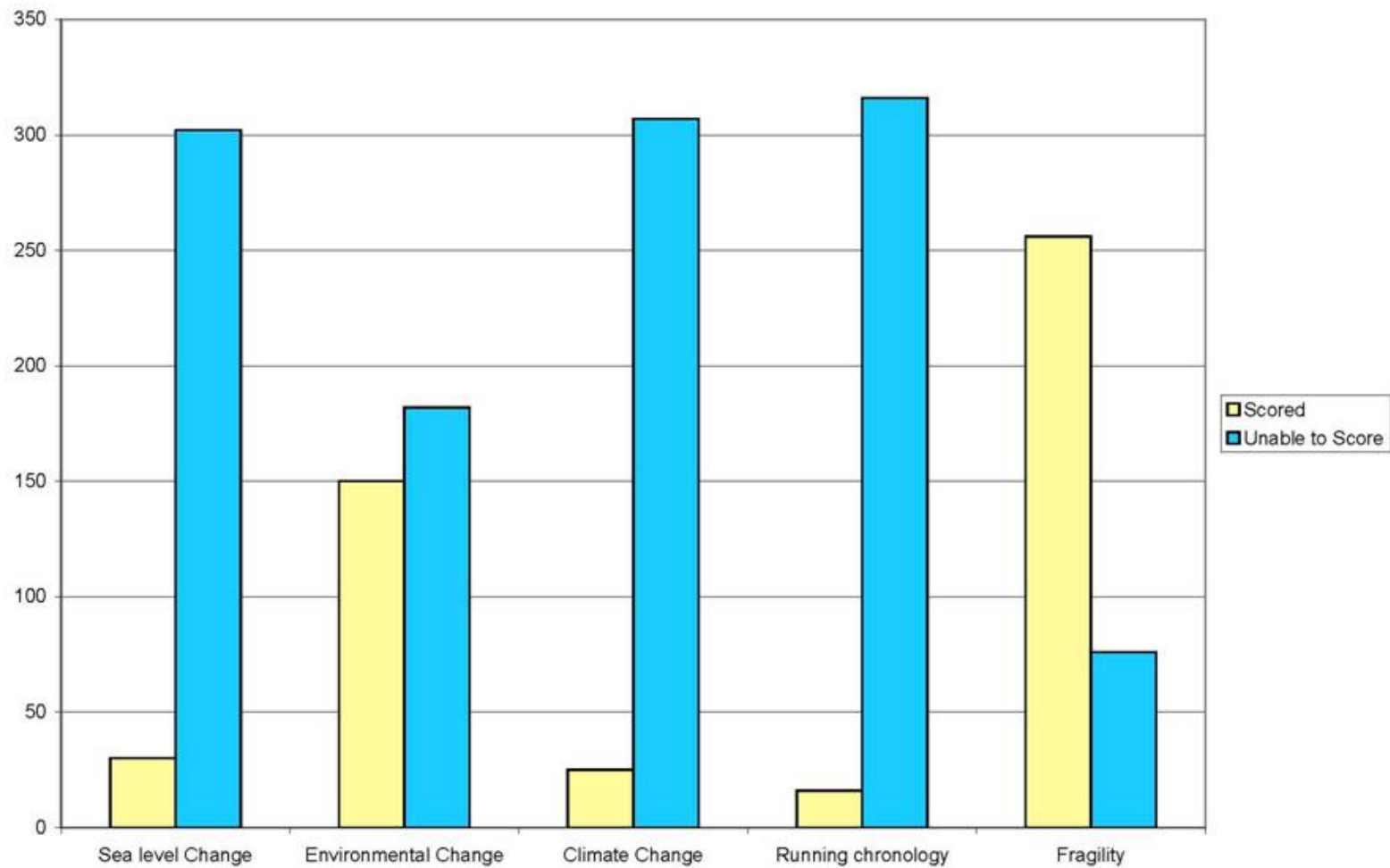
Applying the Criteria: Study Areas

Study Area 7: [The Hamble River](#)



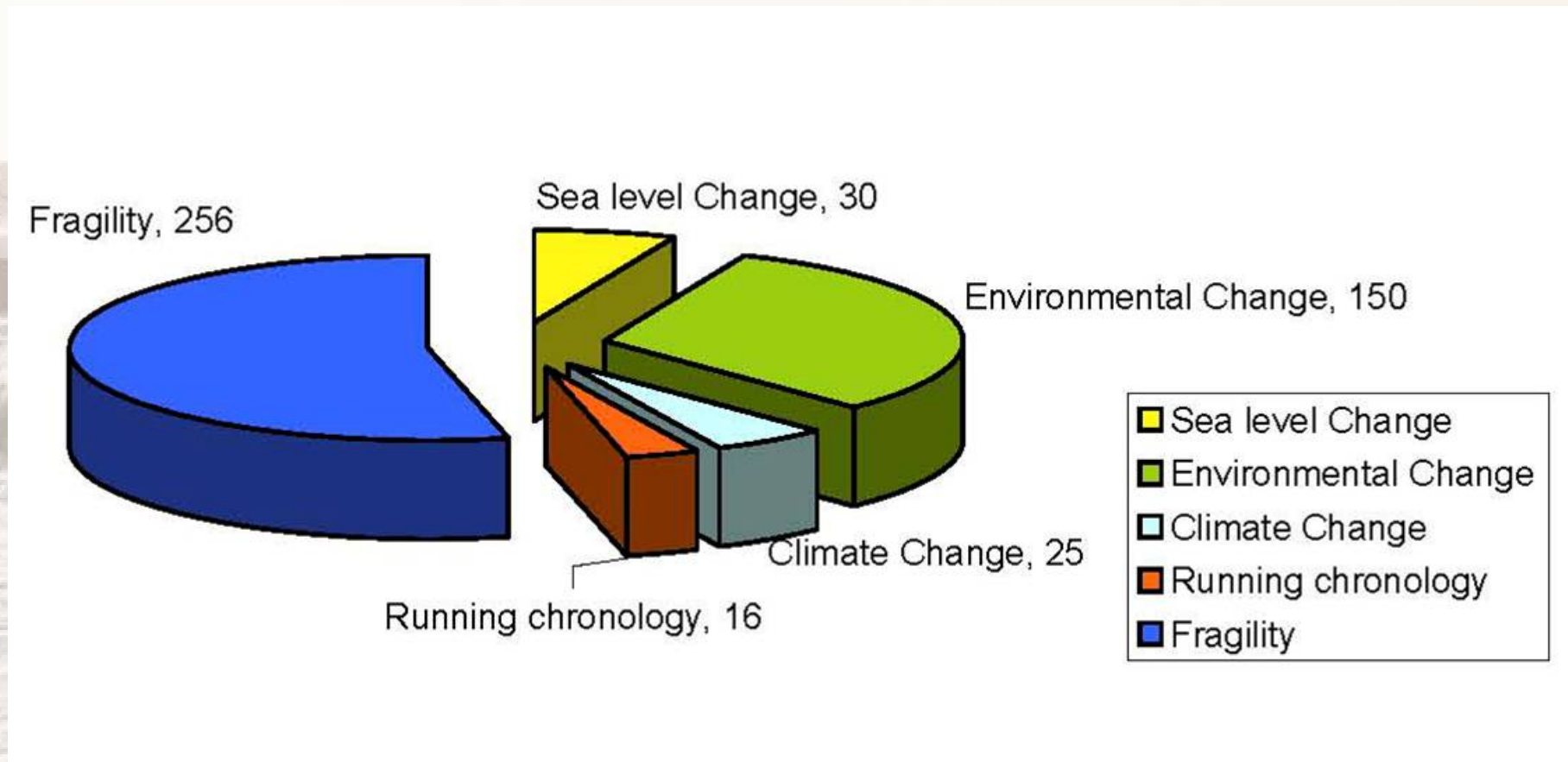
Hamble River Scoring Criteria

Some sites could not be scored under certain criteria due to a lack of information



Hamble River Scoring Criteria

The frequency for scoring in the fragility criteria was highest against other criteria



Applying the Criteria: Specific Sites

[The Grace Dieu](#): Artists impression of the ship in a mud berth in the 1430's on the Hamble River



Sea Level Change

Does the site contain evidence that could indicate a relative change in sea-level?

Score: Unknown

There is currently a lack of evidence in relation to the site and sea level. Further data on the height of the surviving remains would allow a more detailed assessment

Environmental Change

Does the site contain material that could enhance understanding of the local environment at a point of time in the past?

Score: 2 (Medium)



Climatic Change

Does the site contain evidence giving insight into past climatic variation?

Score: 2 (Medium)

Running Chronology

Does the site contain material that could provide evidence of temporal continuity?

Score: 1 (Low)

Fragility

The envisaged survival of the site will be assessed under its current condition

Score: 3 (Imminent loss)

The site is under direct threat of damage from erosion



Non-scoring Criteria: Grace Dieu

- Site Validation Code – Extant Remains
- Coastal Policy – Unknown
- Coastal Context – 2 (Inter-tidal)
- Coastal Type – 6 (Estuarine coast)

Selected Assessment Sites

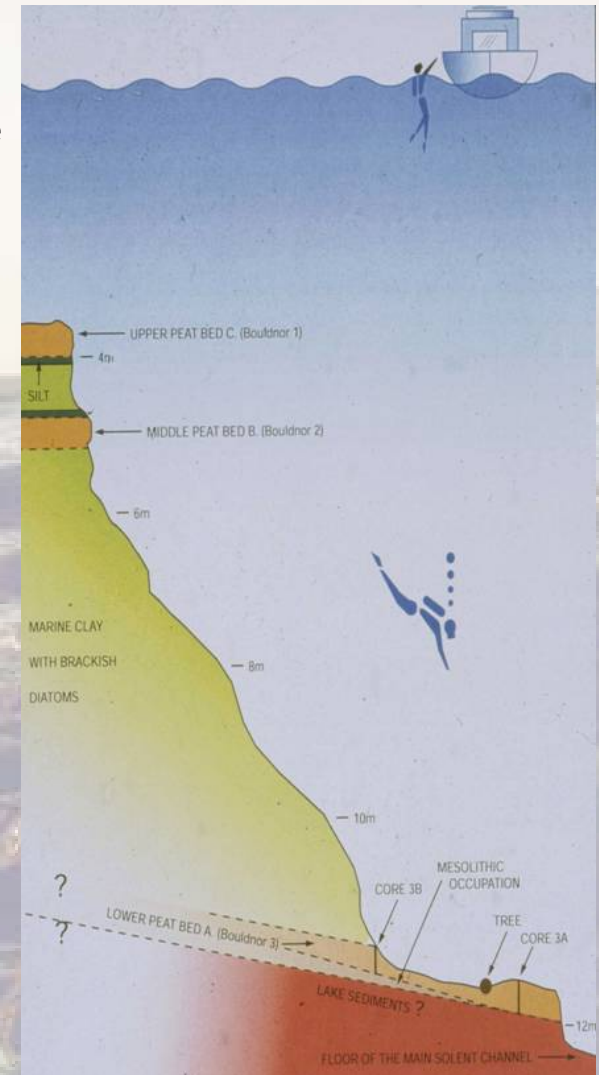
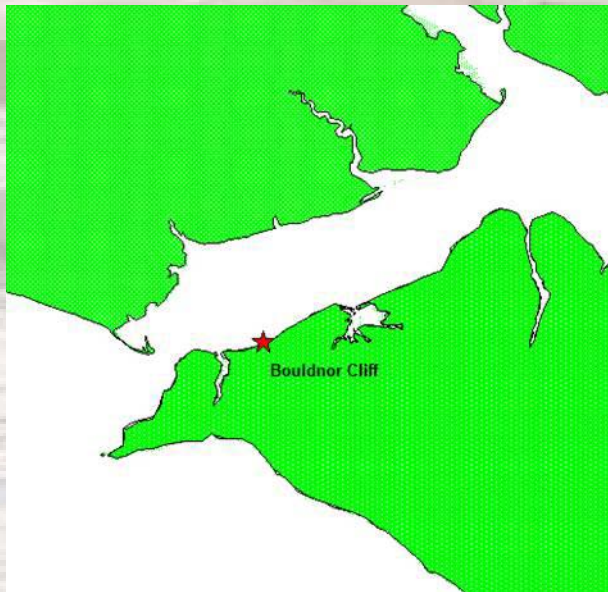
Site	Where	Type
Bouldnor Cliff	Western Solent	Submerged prehistoric landscape
The Round Tower	Portsmouth	Historic Building
Warship Hazardous	Chichester – Selsey	Historic Shipwreck
Hengistbury Head	Christchurch	Terrestrial and inter-tidal prehistoric occupation site
Hurst Spit	Western Solent	Multi-period saltworking remains
Burpham	Arun	Saxon occupation site & adjacent riverine deposits

Assessment Sites: Bouldnor Cliff

The submerged landscape at Bouldnor Cliff has high potential to inform on coastal change

More information is available at

<http://www.hwtma.org.uk/projects/bouldnor/index.htm>



Draft Guidance for Archaeologists

Curators should be made aware that archaeological sites can provide useful information relating to past/current environments and sea level.

- **The ability of archaeologists to ask for sampling, analysis and dating should be strengthened.**
- **When working in the coastal environment, archaeologists should be encouraged to record data which relates to environment and sea level including:**
 - **Recording of water levels**
 - **Recording OD heights of all datable occupation levels**
 - **Environmental sampling**
- **Further guidance to be provided on recording criteria which would be required for archaeologists working within the coastal zone.**
- **Data and or material may be held by other coastal specialists which has a high potential to inform on coastal change. i.e. boreholes and borehole data taken for engineering purposes. This data should be sought and be accessible to archaeologists**
- **For development below the 5m OD contour, curators should recommend that the recovery and analysis of faunal and palaeoenvironmental remains are undertaken to build a record of past coastal environment.**

Draft Guidance for Coastal Managers

- Coastal Managers should be made aware that archaeological sites can provide useful information relating to past and current environments, and sea level.
- Recognise the value of sampling, analysis and dating of archaeological and palaeoenvironmental material for informing on issues of coastal change.
- Where new and existing coastal protection works are being considered an audit of archaeological and palaeoenvironmental evidence for past coastal behaviour and predictable trends should be an integral part of the project design.
- Coastal Managers should be aware that data and or material may be held by a range of coastal specialists i.e. boreholes or borehole data, which has a high potential to inform on coastal change. These should be analysed.
- There is a need for statutory agencies that are not subject to planning controls to analyse sedimentary archives and archaeological sites that they impact through disturbance.