

Not if, but when:

Managing Underwater Cultural Heritage in the face of Climate Change

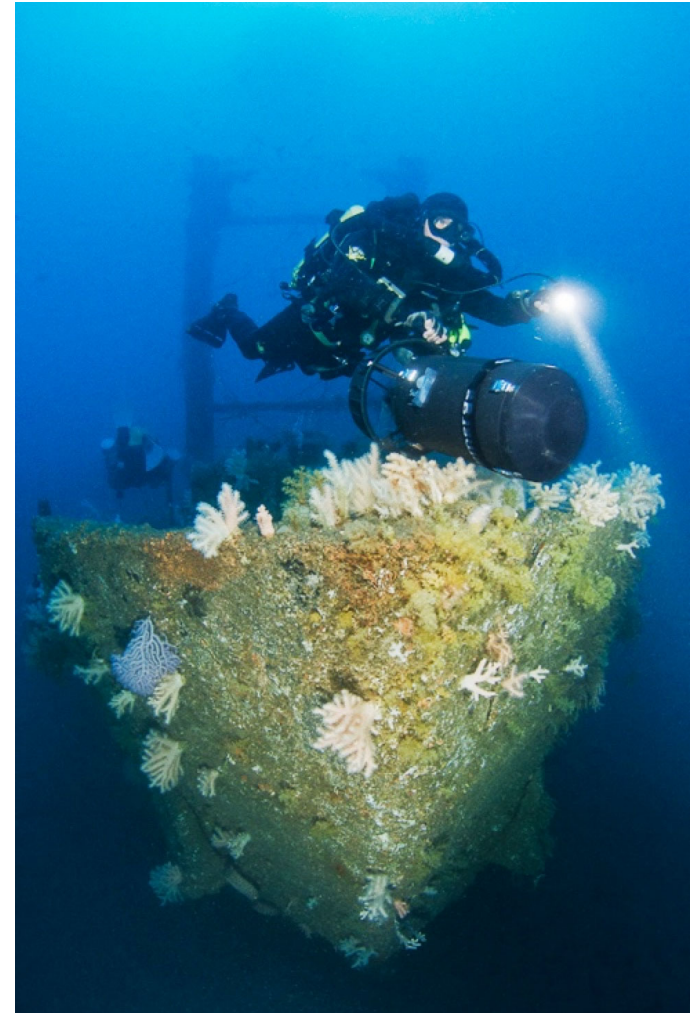


THE UNIVERSITY OF
SYDNEY

Sarah Ward
Sydney Law School
@SarahWardAU

› Overview

- definitions
- risk, vulnerability and endangerment
- monitoring and management challenges
- legislative, policy and program approaches
- community engagement
- next steps?



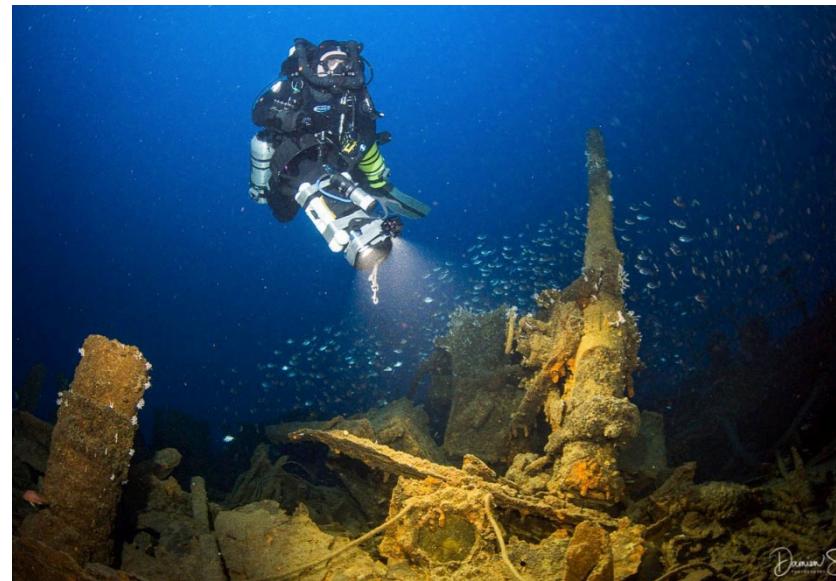
UNDERWATER CULTURAL HERITAGE

- › all traces of human existence having a **cultural, historical** or **archaeological character**, which may have been **partially or totally under water**, periodically or continuously **for at least 100 years**.



› includes

- remains of vessels, aircraft, other vehicles or any part thereof, their cargo and or other contents, together with their archaeological and natural contexts
- sites, structures, buildings, artefacts and human remains, together with their archaeological and natural contexts
- objects of prehistoric character



- › UCH within territorial waters over which State has control
- › most at risk, primarily due to its relative accessibility, light highly oxygenated environment and the dynamic interaction of **physical**, **chemical** and **biological** processes



MANAGING?

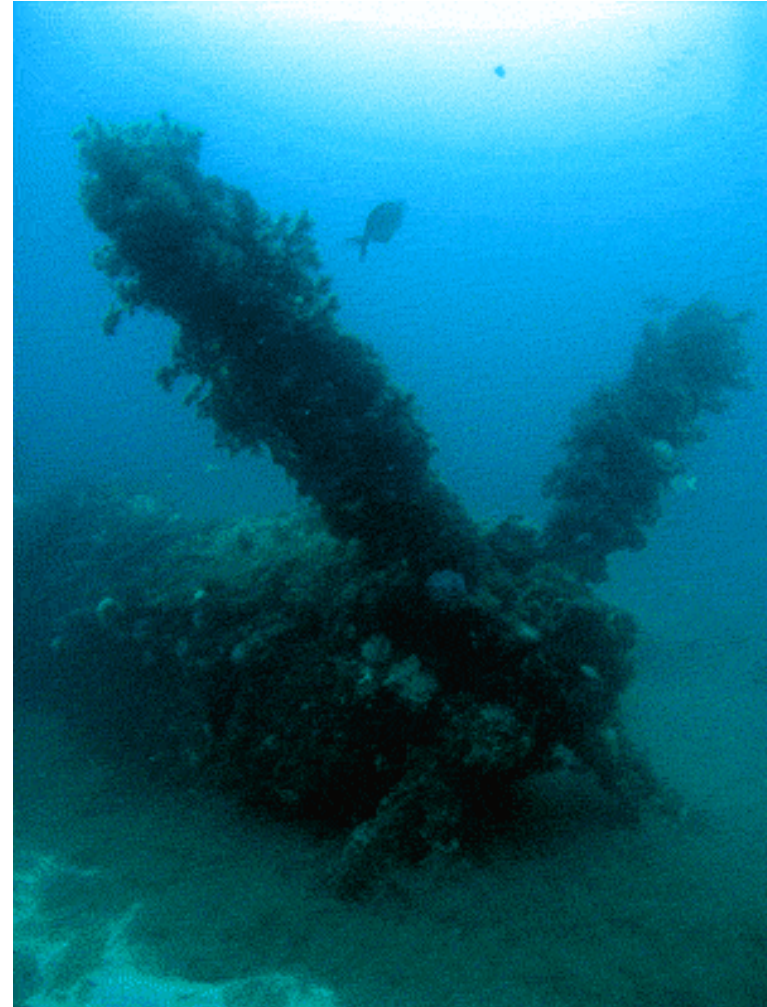
- › *planning, organizing, directing and controlling resources toward the achievement of an objective*
- › **working with the community to know, value and care for our heritage**
- › protection of the cultural significance, integrity and authenticity of the resource for present and future generations through conservation and sustainable resource utilisation
- › **TO MANAGE IS TO SUCCEED IN DIONG OR DEALING WITH SOMETHING DIFFICULT (UCH) OVER WHICH ONE HAS CONTROL**

MANAGING UNDERWATER HERITAGE

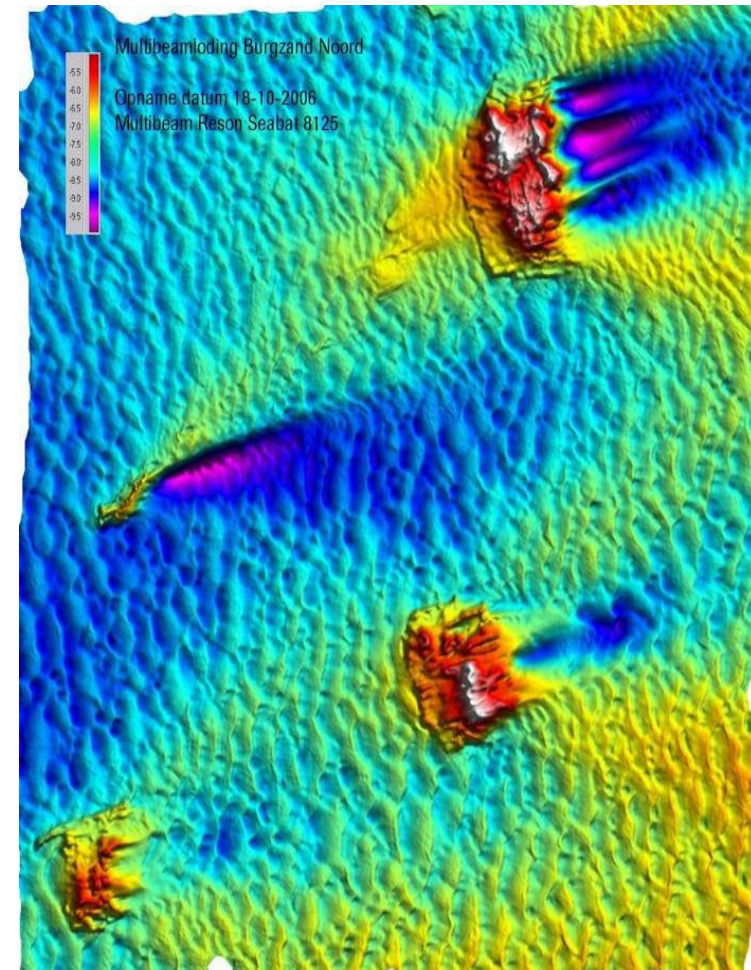
- › which measures to take in the face of coastal change?
- › understand sites, their risk, vulnerability and endangerment potential...



- › inventory of sites
- › determine nature and extent
 - boat and shipwrecks
 - aircraft
 - infrastructure
 - fish traps
 - settlement sites
 - submerged landscapes
 - isolated finds
 - others?

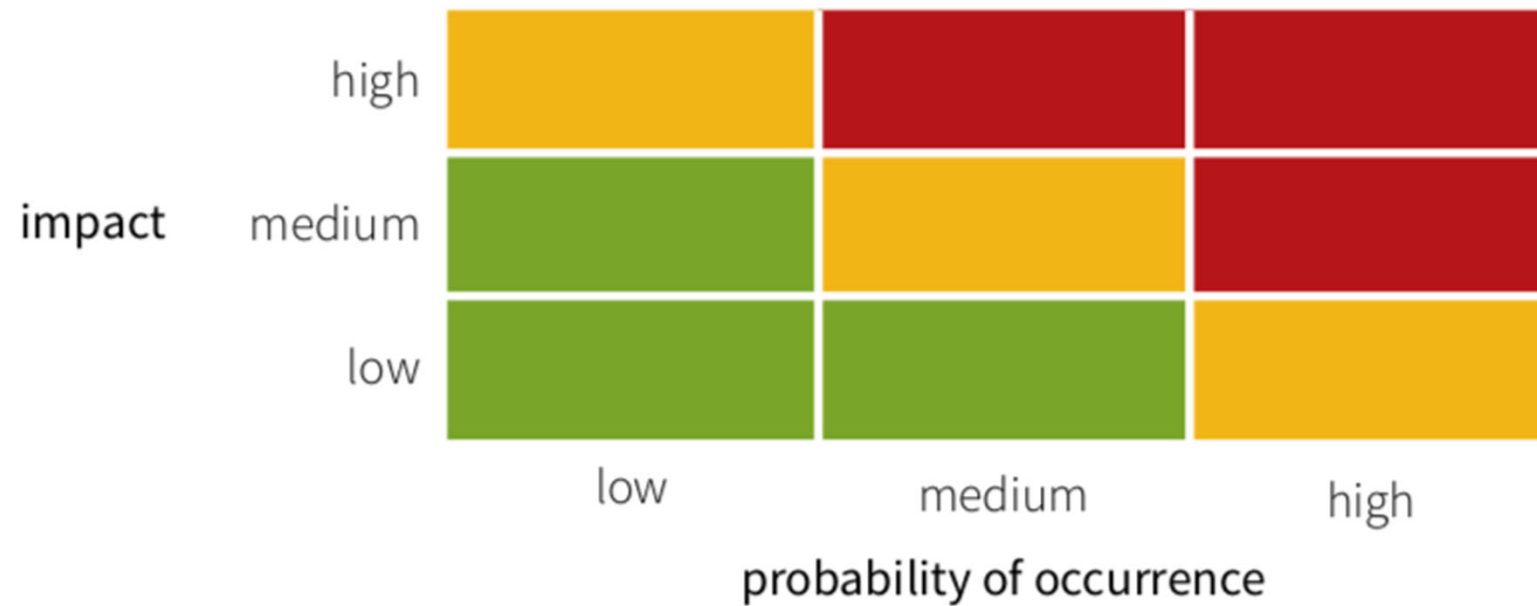


- › likelihood of hazard (risk)
- › vulnerability of UCH to hazard
- › consequences of hazard (loss)
- › value of loss to UCH
- › capacity for UCH to recover (resilience)
- › potential for endangerment as a factor of resilience
- › survival a measure of how UCH has fared to date – a point in time!





SIMPLE RISK ASSESSMENT



MANAGING RISK TO UCH

- › by foreseeing uncertainty, quantifying and analysing condition, it is possible to identify elements at risk and determine priorities for future actions





› assessment factors

- condition?

- optimal condition
- generally (un)satisfactory
- exhibiting extensive issues

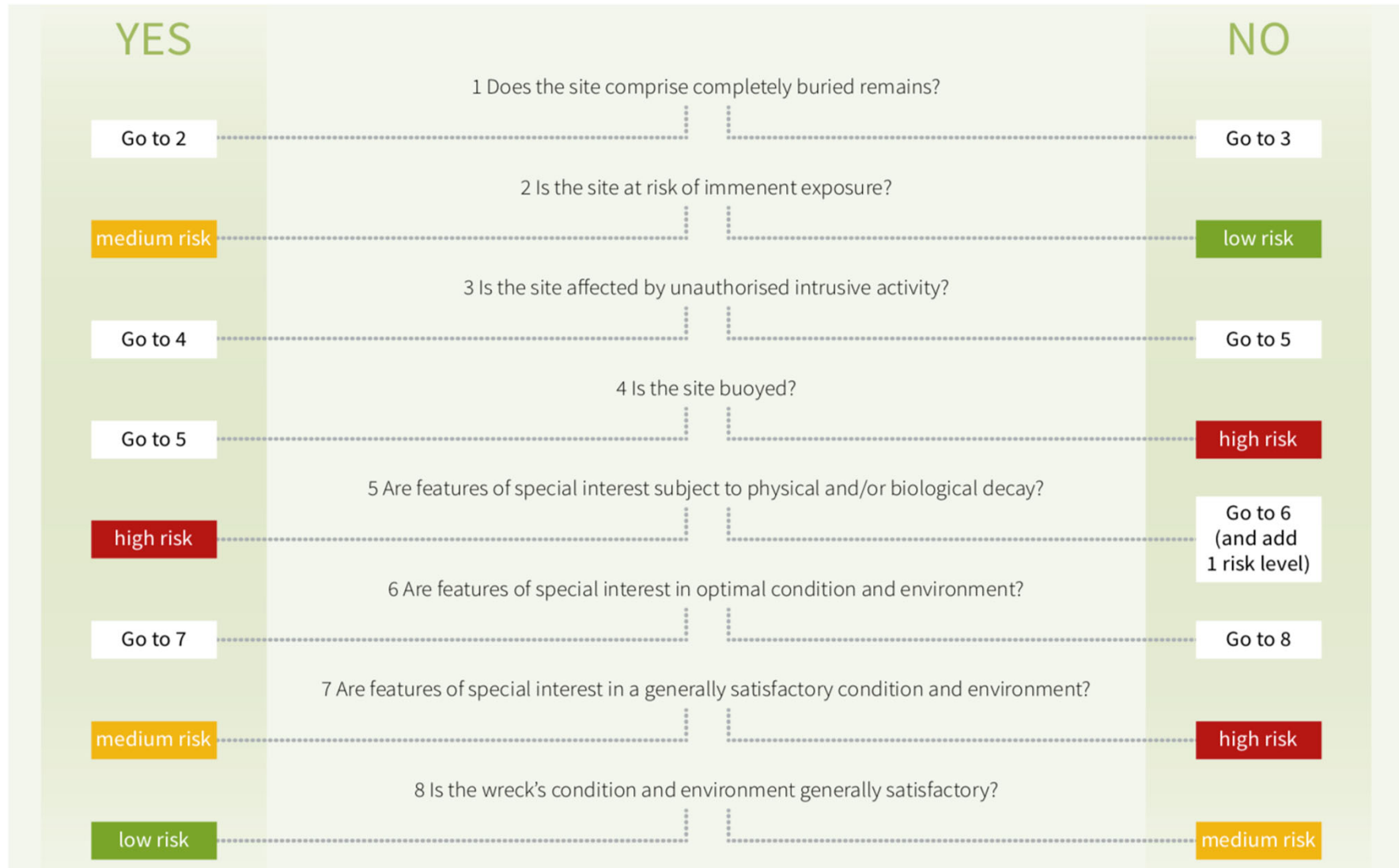
- vulnerability

- principal influences on site

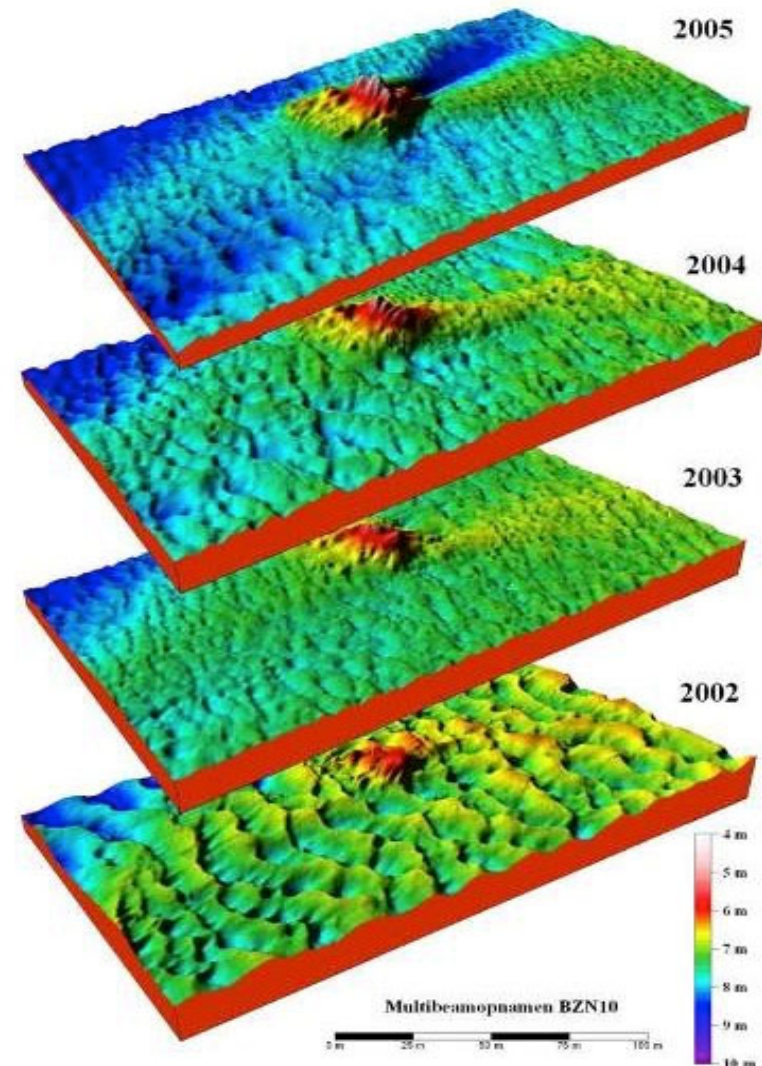
- trajectory

- effectiveness of the management regime
- condition improving
- site stable
- experiencing unmanaged or
- inappropriate decline

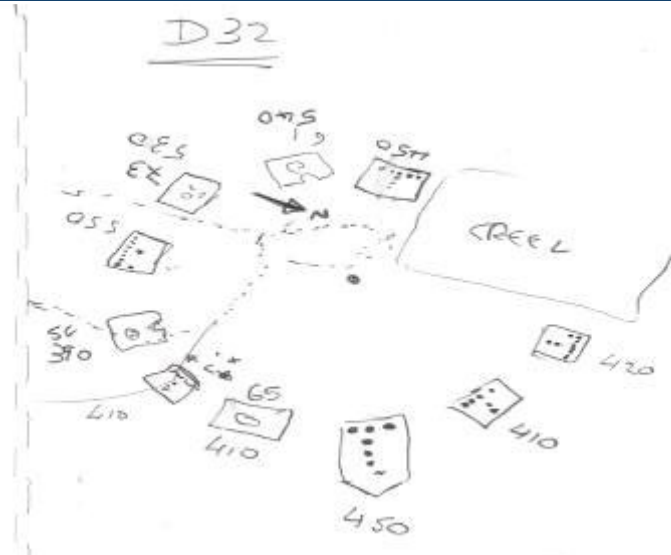
SAMPLE DECISION TREE



- › WHY?
- › essential in managing coastal UCH
- › against base-line data
- › consequently and continuously
- › both the site and its environment

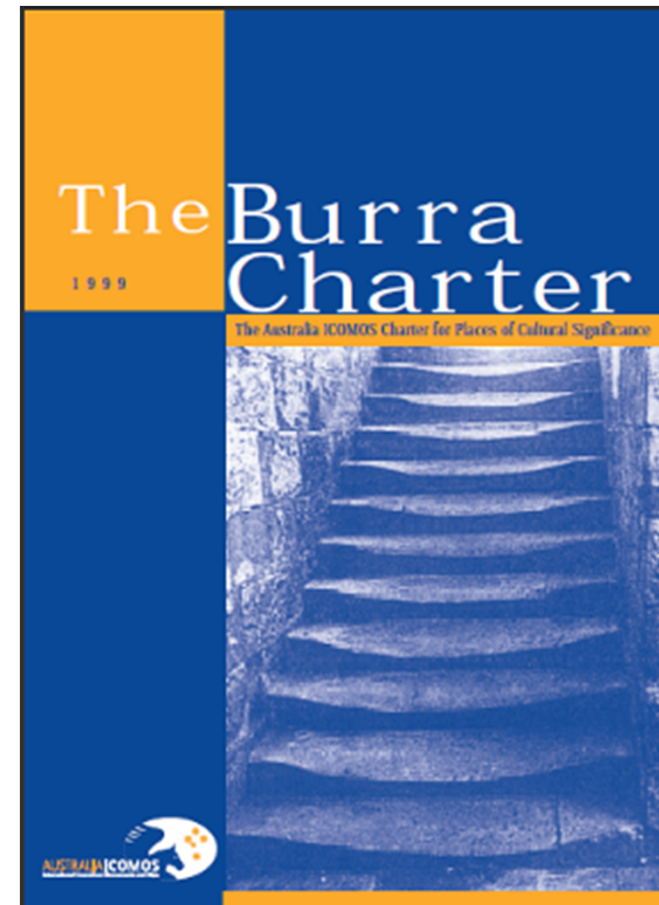


- › HOW?
- › tracer artefact studies
- › data loggers
- › geophysical surveys
- › diver surveys
- › observational data
- › community engagement



- › maintain a 'watching brief' on climate change projections and their associated environmental impacts
- › support measures to increase resilience of the professional community
- › support measures to increase resilience of sites
- › embed climate change adaptation in risk management
- › within projects and practices
 - promote the positive role the historic environment can play in informing responses to climate change and associated environmental risks;
 - develop an approach for dealing with inevitable change, including loss
 - support ICOMOS in mobilising the community for climate action^[SEP]

- › comprehensive inventory of UCH items
- › model conservation management plans
 - excavation
 - *in situ* protection
 - preservation by record
 - manage as a ruin
- › administering UCH funds
- › improving partnerships
- › increasing promotion of heritage (media!)
- › capacity building
- › international cooperation



- › Outreach & Information
 - Public lectures/enquiries
 - National Archaeology Week
 - Research requests
- › Engagement & Recognition
 - WreckMap
 - Heritage Awards
 - Adopt-A-Wreck
- › Education & Training
 - University courses
 - UNESCO ICCROM Training
 - Diving into Archaeology



› Summary

- definitions
- risk, vulnerability and endangerment
- monitoring and management
- legislative, policy, program approaches
- community engagement
- next steps @ICOMOS next year





THE UNIVERSITY OF SYDNEY

THANK YOU!

