



Shipwrecks: Legislation and Conservation

This information sheet has been created for Victorian museums who have custody of shipwreck artefacts. It explains the legislation that protects shipwrecks and provides guidance on collection management and preventative conservation for shipwreck objects in museums.

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'Caring for Shipwreck Artefacts' training video, AMaGA Victoria, available at <https://amagavic.org.au/training-videos>

Shipwrecks in Australia

As an island nation, shipwrecks are an important part of Australian heritage. They are not only evidence of a tragic event – the shipwreck itself – they can also offer glimpses into all aspects of our past. Shipwrecks and their associated artefacts are a finite resource that hold a wealth of information. As keepers of heritage, museums have a responsibility to care for and preserve shipwreck artefacts held in their collections.

Shipwreck Legislation in Victoria

In Victoria, the two pieces of legislation that protect shipwrecks and their associated artefacts are: Historic Shipwrecks Act 1976: protecting shipwrecks in Commonwealth waters, and; Victorian Heritage Act 2017: protecting shipwrecks in Victorian waters which covers enclosed waters including bays and rivers such as Port Phillip, Yarra River and Western port.

The major provisions of both Acts are similar and include:

- Protection of all shipwrecks and their artefacts that have been wrecked for 75 years or more, whether or not their existence or location is known.
- Allowance for shipwrecks and artefacts less than 75 years old to be protected by specifically declaring them under government gazettal.
- Prohibits the removal of shipwreck artefacts, and the buying, selling, exchanging or disposing of shipwreck artefacts without a permit.
- Allows divers to visit shipwreck sites for recreational purposes as long as they look but don't touch.
- Allows for the declaration of Protected Zones (no-go areas) around certain fragile shipwrecks. There are currently nine protected zones in Victoria.
- Requires a person who finds a shipwreck or artefact to notify the relevant authority as soon as practicable.
- Allows for the Crown to give directions in relation to custody of historic shipwreck artefacts.

Custodianship of Shipwreck Artefacts

Under state and commonwealth legislation, it is possible for private people and museums to be custodians of shipwreck artefacts but not owners. The custodian has a responsibility to protect relics in their care and cannot sell or tamper with them. Custodians also have a responsibility to conserve artefacts and prevent deterioration.

What to do if you find a shipwreck artefact in your collection

It is not uncommon for uncatalogued shipwreck artefacts to 'turn up' in museum cupboards and storage sheds. Sometimes, research can reveal that a previously unprovenanced artefact within the collection originally came from a shipwreck. In addition, as the legislation incorporates a rolling date of 75 years there will be shipwreck items in museum collections that will become historic and protected over time. If any of these situations occur, ensure that the item is appropriately catalogued in the museum database and then immediately complete a wreck notification form from Heritage Victoria, which can be found on their website.

What to do if a Shipwreck artefact is offered as a donation to your museum

If a member of the public offers to donate a shipwreck artefact to your museum, there are two main options to consider:

- There are legal ramifications for accepting and possessing historic shipwreck artefacts without a permit so it is best to collect the contact details of the donor and pass them on to Heritage Victoria to pursue.
- If the donor is unwilling to leave details and there is the chance that the artefact will disappear or be destroyed, it is best to take temporary responsibility for the artefacts. Notify Heritage Victoria as soon as possible and record informational relevant information. Pass this information on to Heritage Victoria.

How to improve collection management of shipwreck artefacts

To improve the collection management of shipwreck artefacts, museum committees should consider adding a clause to the Collection Policy covering shipwreck artefacts. An example clause is : The museum accepts donations of shipwreck artefacts-

- That were declared in the 1993 shipwreck amnesty
- raised from local historic shipwrecks by private divers prior to the enactment of protective legislation
- raised by private divers from a local shipwreck not protected by legislation

All shipwreck artefacts that are donated to the museum and are from a shipwreck 75 years or older will be appropriately recorded and registered with Heritage Victoria. Once a shipwreck artefact falls under legislative protection, the museum will register the artefact with Heritage Victoria. It is a legal requirement to report the location of all shipwrecks and their associated artefacts to Heritage Victoria no matter how old.

Special Care for Shipwreck Items

Shipwreck artefacts are different from other museum items in two main ways.

- All artefacts from shipwrecks over 75 years old are protected by legislation.
- Shipwreck artefacts have made a major transition from a very wet but stable environment to a very dry and changeable environment. If this transition is not controlled carefully, then shipwreck artefacts may not survive very long in the museum environment. This is why shipwreck artefacts require specialist conservation

How to care for shipwreck items recently removed from the sea

If a new shipwreck artefact is discovered and brought to the museum, it must be reported to Heritage Victoria. Secondly, a conservator specialising in the conservation of maritime artefacts should be consulted. While waiting for advice, the following ‘first aid’ procedure should be followed:

- Keep the artefact wet at all times either by being totally submerged in an appropriately sized tub filled with sea water (if it came from the sea). If the item is too large for a container, wrap it with material that will retain moisture and keep the item wet.
- Refer to a conservator for the next steps as the conservation activities required will depend on the material the artefact is made from.
- A professional conservator will be able to appropriately plan the conservation of an artefact. The conservation of shipwreck artefacts is time-consuming and can be expensive, but it is really the only way to avoid an artefact deteriorating.

Conservation basics

The general principal of conservation is to conduct the minimum intervention on an artefact to ensure its survival. Preventative conservation is a sub-discipline that involves preventing artefacts from deteriorating by controlling the environment around them. While only professional conservators should carry out conservation, museum workers and volunteers need to incorporate preventive conservation techniques into the day-to-day museum operations to ensure that artefacts last well into the future. Conservation basics include:

- correct artefact handling: use gloves and handle only when necessary. Always support artefacts when moving them. See Museum Collection Care information sheet for more information.
- good housekeeping: keep food away from artefacts, dust regularly and set pest traps. See Museum Collection Care information sheet for more information.
- creating a stable environment: minimise light and heat in areas with artefacts by installing curtains, using low heat light bulbs, providing barriers between artefacts and the environment in the form of display cases and boxes.

Shipwreck artefacts by material type

The method of preservation of shipwreck artefacts depends upon the artefact's material type. The following section will outline the key points for preservation of the main material types likely to be encountered by museum workers and volunteers. These are: wood, metal, ceramics and glass. For each material type the information will be explained in the following way:

- **an outline of the underwater processes that contributed to the artefacts' preservation**
- **a description of the professional conservation techniques that should only be attempted by conservators**
- **tips on preventative conservation and monitoring techniques that can be completed by museum workers and volunteers.**

WOOD

Underwater processes effecting wood

- Cellulose, one of the two main components of wood, degrades, leaving wooden items structurally unsound and liable to crack and disintegrate as they dry out.
- Marine worms attack any exposed wood, burrowing into the timber and damaging the structure of the wood.

Professional conservation of wood

Qualified conservators replace the water in shipwreck wood with a waxy substance called polyethylene glycol (PEG), preventing the wood from collapsing during the drying process. PEG treatment is a specialist activity and incredibly time-consuming. For example, a large dining table from the SS City of Launceston, housed at Heritage Victoria's Conservation Laboratory, had a PEG treatment that required 10 years and is still undergoing drying treatment.

Preventative conservation of wood

Wooden artefacts should be stored or displayed in a cool, stable environment and away from strong light. Wooden items in warm humid environments can experience biological growth such as mould and insect attacks. Fluctuating seasonal conditions can cause timber to shrink and crack. It is important to maintain good housekeeping routines to reduce the risk of insect or other biological attack.

When attempting to move wooden artefacts, remember that while an artefact may look

to be in sound physical condition, it may be structurally fragile and must always be supported when lifting or carrying.

Monitoring of wood

Monitor wooden artefacts in storage and display spaces for:

- drying out and shrinkage
- biological deterioration by algae or fungi or evidence of other biological organisms through bird and rodent droppings, wood dust, tooth marks or holes.

METAL

Underwater processes effecting metal

Metal artefacts can have a good survival rate underwater but this depends on a number of factors. Most metals that are underwater will corrode to a certain extent until they reach an equilibrium with their surrounding environment. Once this equilibrium is reached, they can survive for some time underwater unless their environment changes. This can happen through storm damage or illegal activity such as looting. Different metals survive and react differently underwater:

- Pure gold usually survives for a great length of time without corroding.
- Silver will corrode quite easily, become very fragile and form a concretion with similar items.
- Copper, brass and bronze can develop a shiny pitted surface and can become covered with a layer of concretion as well as a green or a black corrosion product.
- Ferrous metals such as cast and wrought iron and steel usually corrode to form

thick concretions that can entirely engulf the artefact. Cast iron can form dense concretions around the artefact while wrought iron will develop a dense concretion layer around the original metal. Often the metal object will corrode away entirely leaving only a void.

Professional conservation of metal

Professional conservators can work towards making metal objects more stable and to slow down further corrosion by treating them in various ways. One such method is desalination treatments to leach out the chloride ions which are the cause of corrosion in metal.

Preventative conservation of metal

Preventative conservation for metal items involves:

- desalination
- storage or display in a cool, low light, stable environment with low humidity to prevent corrosion from continuing.
- Keep like metals together and separate from different metals will also prevent corrosion from starting again.
- Do not remove corrosion products or concretions as these could be holding the artefact together or could contain important historical or environmental information.
- On no account use abrasive cleaners or wire brushes on metal artefacts as these can remove makers marks and fine important details. If the museum finds it necessary to remove concretions be sure to seek professional advice first.

Monitoring of metal

Monitor metal artefacts in their stable display or storage environments. If new corrosion activity or salt build up occurs on the surface of the artefacts seek the advice of a qualified conservator.

CERAMICS

Underwater processes effecting ceramics

Salt from sea water will penetrate ceramics and can damage glazed surfaces. Equally so, when the ceramic artefact is removed from the salt water environment, the salts within the ceramic body can move and end up coating the exterior of the ceramic with salt crust which often disrupts the glaze and causes a great deal of damage. Ceramic artefacts are prone to breakage and chipping if left exposed underwater but if protected by burial they can remain in remarkably good condition.

Professional conservation of ceramics

The professional conservation procedure for treating aged shipwreck ceramics is to desalinate the ceramic body by keeping the artefact totally submerged in a fresh water bath and periodically changing the water. Low fired and unglazed pottery may have absorbed more salt so may take longer to desalinate than higher fired porcelain and stoneware. When testing of the water has indicated that the majority of the salts have been removed from the ceramic, the artefact can then be slowly dried and made ready for display or storage.

Preventative conservation of ceramics

Preventative conservation procedures for ceramics are as follows:

- do not clean stains or remove marine growth as they can contain important information and may also be integral in holding the item together. Glazed surfaces can be very fragile and should be treated with care.
- Seek professional advice before attempting to 'restore' or glue together pieces of a broken ceramic. Conservation grade adhesives are required to ensure long term adhesion without long term adverse side effects.
- Do not empty the contents of any vessel as this can provide vital information about the purpose of the vessel.
- Care needs to be taken to pack artefacts carefully for storage or transportation, and adequate support needs to be arranged for artefacts when on display.

Monitoring of ceramics

In the long term, watch the outside surface of ceramics for the build up of salt, as this indicates an incomplete desalination process. If observed, seek professional advice from a qualified conservator.

GLASS

Underwater processes effecting glass

Glass is made from silica and a variety of other components. The ratio of silica to the other components determines the stability and longevity of glass underwater. These components or can leach out over time and are

the cause of the iridescent rainbow patterns and flaking often seen on the outer surface of shipwreck glass artefacts.

Professional conservation of glass

Due to the great variations within glass there are a variety of professional conservation methods required. In general glass should be desalinated and dried carefully but this should only be performed by qualified conservators.

Preventative conservation of glass

The preventative conservation method for glass is to carefully pad any glass in storage and provide adequate support for any glass shipwreck item on display. Take all measures to avoid chipping and breakage of these very fragile items. Do not clean the surface of glass to remove staining or marine growth as this could lead to the surface flaking off.

Monitoring of glass

Watch for de-laminating or flaking of the surface of glass artefacts and seek professional guidance of a qualified conservator if this happens.

Further information

Resource	Source	Link
Museum Methods	AMaGA	https://www.amaga.org.au/museum-methods
Recollections, Damage and Decay	Heritage Collections Council	https://aiccm.org.au/wp-content/uploads/2020/01/3_damage_and_decay.pdf
Collection Care	AICCM	https://aiccm.org.au/conservation/collection-care/
Caring for Shipwreck Artefacts, training video	AMaGA Victoria	https://amagavic.org.au/training-videos

AMaGA Victoria can provide assistance with the location of further information on collections care and conservation. Please contact: 03 8341 7344 or info@amagavic.org.au

AMaGA Victoria

Contact Us

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AMaGA Victoria respectfully acknowledge the Traditional Owners of the land on which we work, the Boon Wurrung and Woi Wurrung peoples and honour their Ancestors, Elders and next generations of community and pays respect to the Elders of all the Nations of Victoria, past, present and emerging.