

# Conservation Report

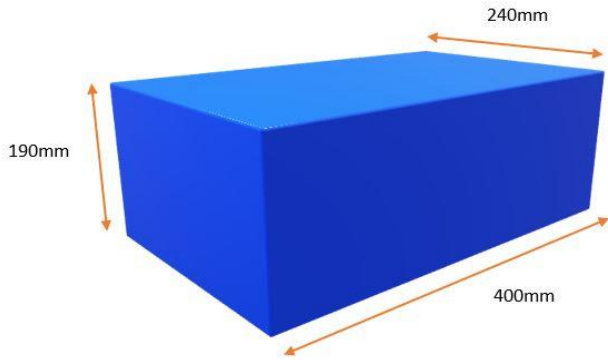


**Tara Mclaughlin**

Structure and Integrity semester 2 2019

3/11/2019

## Physical description

<b>Table 1: Physical Description</b>		
<b>Report conducted by Tara McLaughlin</b>		<b>Additional notes</b>
<b>Summary</b>	Victorian-era writing slope box, Walnut with Ebony and marquetry lined edge, and a mother of pearl inlay on front and top. This writing box's estimated age is 1860s. This box was most likely a man's, opposed to being owned by a woman as it does not have an inbuilt sewing compartment.	
<b>History</b>	This box was gifted to The Traditional Furniture Restorer in 2013 by Down Memory lane.	
<b>Materials:</b>	Timber, metal, Mother of pearl and leather	
<b>Size:</b>	 <p><i>Figure 1: Size and measurements diagram</i></p>	

### Significance and values:

Writing boxes were a person's main source of correspondence and communication throughout the 17<sup>th</sup>-19<sup>th</sup> century. This writing box is compact and portable for travel, it would be considered your personal portable traveling office. The design allows the box to be locked up to keep the owners writing secure, complete with storage for paper, envelopes and other paper work. The box was storage for everything the writer needs including their dip pen and inkwells.

## Condition Assessment (Before Treatment)



### Summary of damage/deterioration:

The box is constructed by the assembly of a secondary structure with veneer overlay. The cracks and splits throughout the box can be caused by changes in humidity that cause the box to expand and contract repeatedly. The veneer does not contract and expand at the same rate as the secondary timber. The contraction and expansion of the secondary structure has resulted in cracks, bubbles and lifting of the veneer and inlay. The finish on the box is in fair condition. On some sides the finish looks to be affected by water. The finish has not deteriorated to the point of delamination, but has affected the colour as it appears to be opaque in sections.

**Table 3: Identification of damage/deterioration**

**Location:** Top of writing box

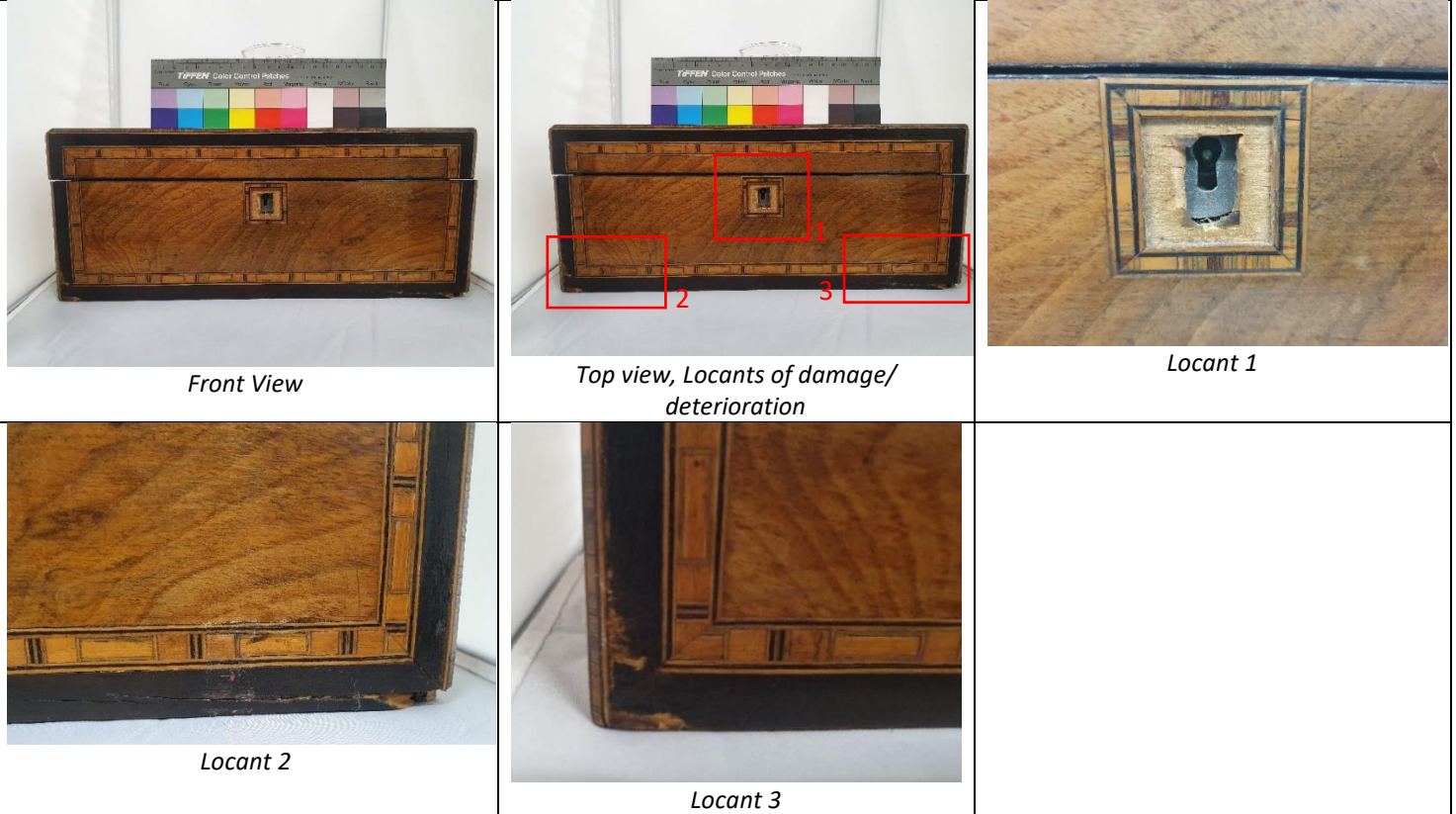
(Photography, Tara McLaughlin, September 2019, University of Canberra)

 <p style="text-align: center;">Top View</p>	 <p style="text-align: center;">Top view, Locants of damage/ deterioration</p>	<p style="text-align: center;">Locant 1</p>
 <p style="text-align: center;">Locant 2</p>	 <p style="text-align: center;">Locant 3</p>	 <p style="text-align: center;">Locant 4</p>

Type of Damage/ Deterioration	Description/deterioration	Location of damage/deterioration
<b>Major cracking</b>	Major crack through ebony from left corner and across back edge, approximately 8cm long.	Locant 1
<b>Minor Cracking</b>	Minor crack on Walnut on back right corner	Locant 2
<b>Veneer delamination</b>	Marquetry delaminated across right hand side	Locant 3
<b>Major losses</b>	Major loss of Ebony right side on edge.	Locant 3
<b>Minor losses</b>	Small pieces of marquetry missing throughout the top, quite small.	Locant 4
<b>Finish condition</b>	Finish has signs of water damages, opaque look through	

	sections.	
<b>Dirt/Dust</b>	Dirt and dust though out all cracks and over finish.	
<b>Hardware</b>	N/A	N/A





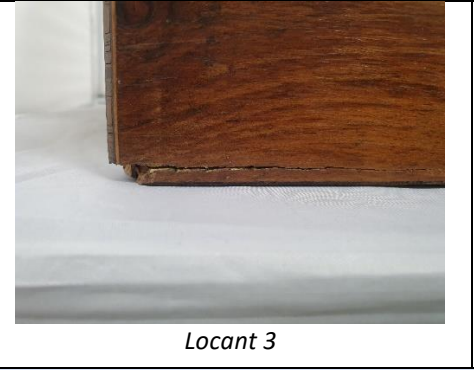

**Location: Front of writing box**  
 (Photography, Tara McLaughlin, September 2019, University of Canberra)



Type of Damage/Deterioration	Description/deterioration	Location of damage/deterioration
<b>Major cracking</b>	Minor crack leading off loss on bottom right corner	Locant 3
<b>Minor Cracking</b>	N/A	
<b>Veneer delamination</b>	N/A	
<b>Major losses</b>	Major chip and loss on bottom right hand corner.	Locant 3
<b>Minor losses</b>	Ebony has chips and losses on bottom left corner.	Locant 2
<b>Finish condition</b>	Finish has signs of water damages, opaque look through sections.	
<b>Dirt/Dust</b>	Dirt and dust throughout all cracks and over finish	
<b>Hardware</b>	Mother of pearl escutcheon missing 3cm by 3cm.	Locant 1

**Location: Right Side of writing box**  
 (Photography, Tara McLaughlin, September 2019, University of Canberra)



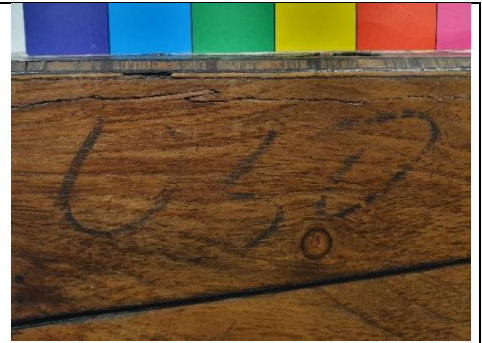
		
<i>Right View</i>	<i>Right view, Locants of damage/ deterioration</i>	<i>Locant 1</i>
		
<i>Locant 2</i>	<i>Locant 3</i>	<i>Locant 4</i>
<b>Type of Damage/Deterioration</b>	<b>Description/deterioration</b>	<b>Location of damage/deterioration</b>
<b>Major cracking</b>	Crack and loss along the bottom left hand corner.	Locant 3
<b>Minor Cracking</b>	Crack line along the top edge.	Locant 2, locant 1
	Crack along the bottom left hand corner.	Locant 4
<b>Veneer delamination</b>	N/A	
<b>Major losses</b>	Loss on bottom right hand corner	Locant 3
<b>Minor losses</b>	Loss on the bottom left hand corner	Locant 4
<b>Finish condition</b>	Good condition	
<b>Dirt/Dust</b>	Dirt and dust though out all cracks and over finish	
<b>Hardware</b>	N/A	
<b>Other</b>	Old repairs on right side of box. These have Deteriorated and is delaminating from the under support timbers	Locant 4
<b>Location:</b> Left side of writing box <i>(Photography, Tara McLaughlin, September 2019, University of Canberra)</i>		



Left View



Left view, Locants of damage/deterioration



Locant 1



Locant 2



Locant 3



Locant 4

Type of Damage/Deterioration	Description/deterioration	Location of damage/deterioration
Major cracking	N/A	
Minor Cracking	Minor crack along the bottom.	Locant 4
	Minor crack along the top.	Locant 2
Veneer delamination	N/A	
Major losses	Loss on top right corner	Locant 3
Minor losses	N/A	
Finish condition	Good condition	
Dirt/Dust	Dirt and dust throughout all cracks and over finish	
Hardware	N/A	
Other	"050" written in black marker on top half.	Locant 1

**Location: Back of writing box**  
 (Photography, Tara McLaughlin, September 2019, University of Canberra)



Top View

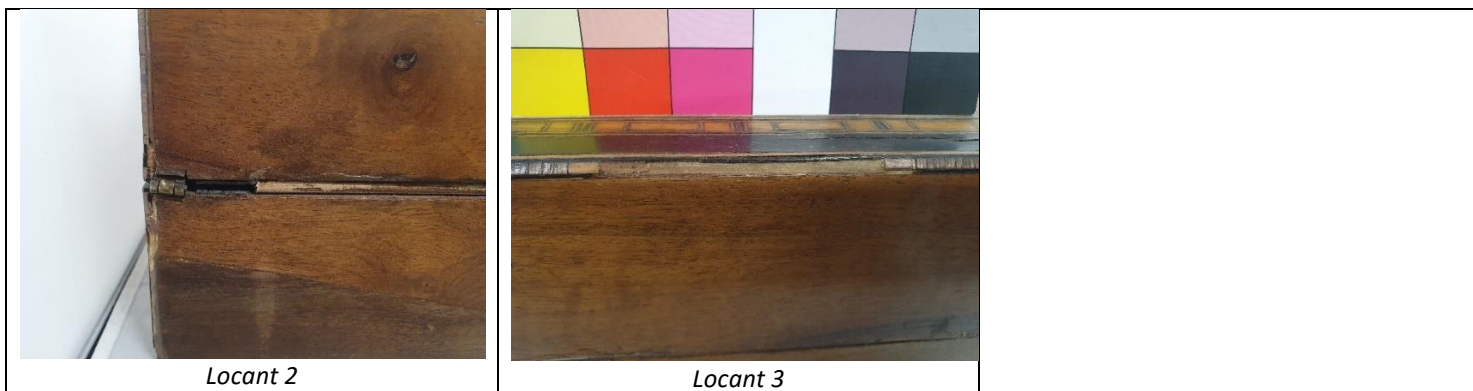


Top view, Locants of damage/deterioration



Locant 1

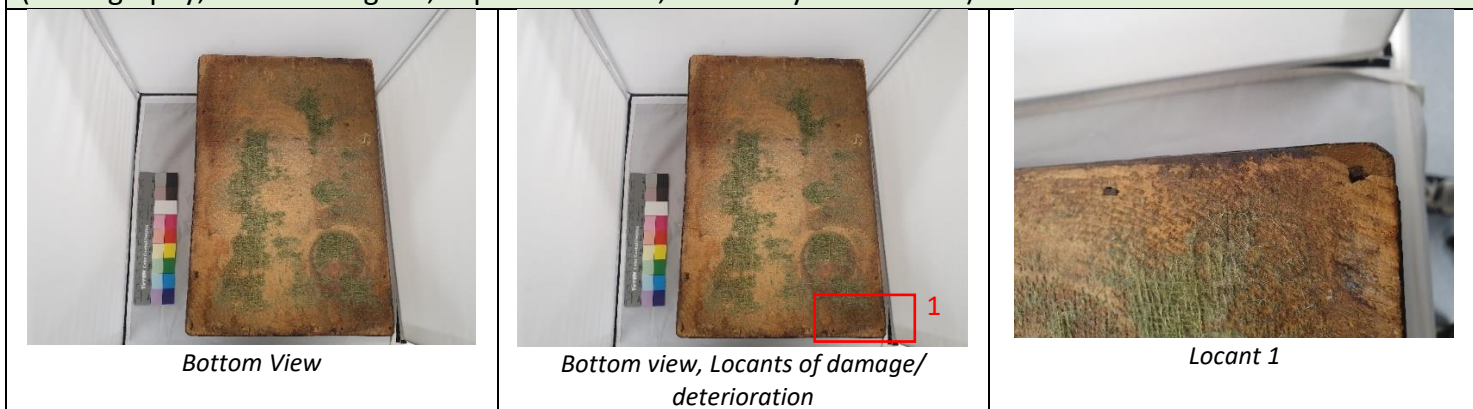




Type of Damage/Deterioration	Description/deterioration	Location of damage/deterioration
Major cracking	N/A	
Minor Cracking	N/A	
Veneer delamination	Old veneer cut in, has lifted across the bottom.	Locant 1
Major losses	Major loss of decorative veneered edge	Locant 3
Minor losses	Veneer has been chip on bottom right. This is due to shrinkage of the boxes timber bottom.	Locant 2
Finish condition	Finish has signs of water damages, opaque look through sections.	
Dirt/Dust	Dirt and dust though out all cracks and over finish	
Hardware	N/A	
Other	Old repair on bottom right. 200mm by 50mm triangle timber veneer has been cut in.	Locant 1

**Location: Bottom of writing box**

(Photography, Tara McLaughlin, September 2019, University of Canberra)



Type of Damage/Deterioration	Description/deterioration	Location of damage/deterioration
Major cracking	N/A	
Minor Cracking	N/A	
Veneer delamination	N/A	
Major losses	Loss on back right corner.	Locant 1
Minor losses	N/A	
Finish condition	N/A	

<b>Dirt/Dust</b>	Dirt and dust throughout all cracks and over finish.	
<b>Hardware</b>	N/A	
<b>Other</b>	Only fragments of green hessian are left on the bottom side.	

**Location: Inside of writing box**  
 (Photography, Tara McLaughlin, September 2019, University of Canberra)



*Top View*



*Top view, Locants of damage/  
deterioration*



*Locant 1*



*Locant 2*



*Locant 3*



*Front, Inkwell and pen rest pices*



*Back, Inkwell and pen rest pices*





*Bottom Slop open*


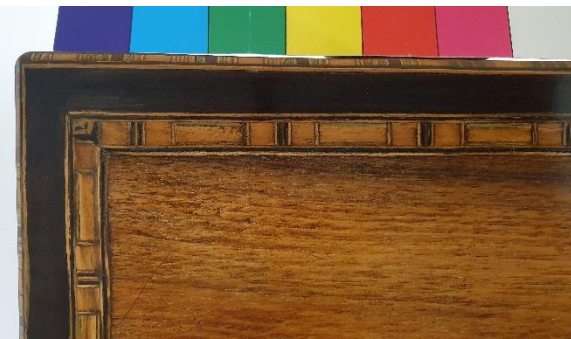





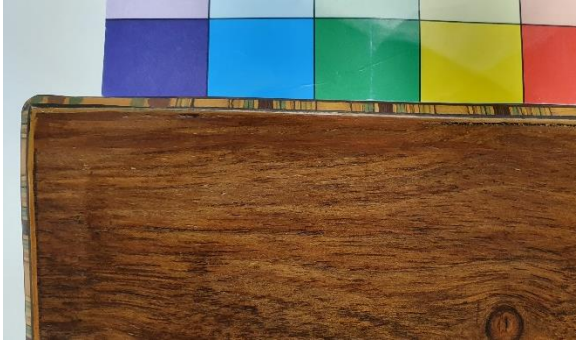



*Top slop open*

Type of Damage/Deterioration	Description/deterioration	Location of damage/deterioration
<b>Major cracking</b>	N/A	
<b>Minor Cracking</b>	N/A	
<b>Veneer delamination</b>	N/A	
<b>Major losses</b>	N/A	
<b>Minor losses</b>	There are a few very minor chips throughout the inside of the box.	Locant 3
<b>Finish condition</b>	Good condition	
<b>Dirt/Dust</b>	N/A	
<b>Hardware</b>	Missing key for lock. Lock stuck in locked position.	
	One hinge is missing. This has been replaced with a leather strap.	Locant 2
<b>Other</b>	Broken divider between inkwell and pen rest.	Locant 1
	Bottom slope's catch hole has broken out on the back side.	
	Bottom slope has been affected by timber shrinkage. This has caused ridges on where the leather sits.	Figure
	The original slop covering has been removed and replaced with a leatherette.	







## Treatment Undertaken

**Table 4: Treatment undertaken for damage/deterioration**

Type of damage/ Deterioration	Treatment undertaken (Photography, Tara McLaughlin, September 2019, University of Canberra)	
<b>Major cracking</b>	Major cracking needed to be stabilised to ensure no future damage occurs. To complete this, a thin piece of cedar has been cut and thickened to fit the space. Prior to inserting the thin timber with hide glue into the crack, the crack was cleaned out with a scalpel, this ensured that there was not timber splintered in the space that would affect getting good adhesion on the new timber (Rodd 1976 p122).	
	 <p data-bbox="435 951 732 982"><i>Major crack on top, Before.</i></p>	 <p data-bbox="1073 951 1349 982"><i>Major crack on top, After</i></p>
<b>Minor Cracking/ Timber separation</b>	Minor cracking needed to be stabilised to ensure no future damage occurs. The Minor cracking and timber separation has been found around the base/bottom of the box. The openings were injected with hide glue using a syringe, and then clamped until glue was set.	
	 <p data-bbox="396 1602 769 1633"><i>Right side top right corner, before.</i></p>	 <p data-bbox="1036 1602 1386 1633"><i>Right side top right corner, after</i></p>










	 <p><i>Left side top left corner, before.</i></p>	 <p><i>Left side top left corner, after.</i></p>
<p><b>Veneer and marquetry delamination</b></p>	<p>The delaminated veneer and marquetry has been carefully lifted as far as the glue has failed. The sections that have bubbled had been trimmed down so that they fit into their original space. This has happened due to shrinkage of the substrate (Rodd 1976 p98). The veneer and marquetry has been injected with hide glue using a syringe, this was the best method as the needle is fine enough to be placed under without causing further damage to the veneer and marquetry (McGiffin 1992 p55). This was then clamped down with Mylar over the box surface and a timber block on top, this allowed for even pressure without the risk of damaging the surface or gluing the timber block to object.</p>	
	 <p><i>Top right side, before.</i></p>	 <p><i>Top right side, after.</i></p>
<p><b>Major losses</b></p> <p>Corners/ Edges</p>	<p>The major losses on comers and edges have been filled with a two pack epoxy putty. This putty dries hard in a short period of time. Therefore, there is no shrinkage. It is well suited for larger holes and edges, corners, moulding and carving. Due to it hardness and flexibility is it well suited to rebuilding edges. The putty once dry can be carved to shape of the loss (Minutillo, 2016)..</p>	 <p><i>Example of epoxy putty on edge.</i></p>




	 <p><i>Right side bottom right edge, before.</i></p>	 <p><i>Right side bottom right edge, after.</i></p>
Ebony	<p>The major loss of Ebony on top has been filled with button lac. The button lac has been melted into the loss with a soldering iron. The button lac is dark in colour and gives a good base colour for inpainting of the Ebony (Minutillo, 2016).</p>	 <p><i>Button Lack</i></p>
	 <p><i>Front bottom right corner, before.</i></p>	 <p><i>Front bottom right corner, after.</i></p>
<b>Minor losses</b>		
<b>Infill</b>	<p>All repairs have been infilled with water putty. The joint was filled with water putty. This putty is very fine and dries hard. This allows for it to be easily sanded creating a fine finish. The woodstop can be dissolved in water, this allows for easy cleaning without affecting the original finish (Minutillo, 2016). The cut in timber is then able to be grained/in painted.</p>	
<b>Inpainting/ Graining</b>	<p>To blend repairs they have been grained/ in-painted. For the in-painting pigment colours were used to match the original timber. The pigments were dissolved in shellac (Used as a blinder) and methylated spirits used as the thinning agent to ensure good flow of colour (Minutillo, 2016).</p>	 <p><i>Pigment samples</i></p>

<p><b>Finish</b></p>	<p>The box has been finished using traditional French polish methods using shellac. Shellac is a fast-drying evaporative coating characterised by exceptional clarity and depth. It is highly compatible with most other finishes. Due to this the finish is able to be reworked using polish rubbers (Shellac). Shellac consists of resin (orange shellac flake) and alcohol (methylated spirits), mixed at 250g of flake to 1 Litre of methylated spirits. This solution is then diluted dependent on application results. This allowed for the water damage to be softened and draw out the whiting in the finish, while keeping the original patina of box. This will allow a protective seal to the inpainting, and give the inpainting the same shine (McLaughlin 2019) and (Minutillo 2016).</p> <p>The finish has then been waxed with dark cabinet wax, this was used to enhance the finish and give it protection for light and use.</p>	<div data-bbox="310 527 907 974" data-label="Image"> </div> <p data-bbox="500 974 721 1003"><i>Orange shellac flake</i></p> <div data-bbox="1065 527 1411 982" data-label="Image"> </div> <p data-bbox="1143 982 1333 1012"><i>Dark cabinet wax</i></p>
<p><b>Dirt/Dust</b></p>	<p>The box was brush vacuumed, to ensure that all dirt and grit has been removed before any work is done. This included under the lifted veneer and inside the box. The box was cleaned with a mix of diluted soap and water solution. Applied by using a cotton bud. The test to ensure no whiting of finish (Bloom) where moisture could penetrate the finish, was clear. Therefore, using the minimal amount of solution all surfaces where cleaned (McGiffin 1992 p.43).</p>	<div data-bbox="984 1016 1503 1402" data-label="Image"> </div> <p data-bbox="1052 1402 1433 1432"><i>Inside of box before brush vacuum.</i></p>
<p><b>Hardware</b></p>		
<p>Lock</p>	<p>Contact with the Key Hole Surgeon Melbourne determined that it is possible to cut a new key for the lock. The lock is currently in Melbourne getting a new key. This lock will be back in Canberra to be fitted mid-November.</p>	
<p>Hinge</p>	<p>Both hinges have been replaced. The hinges are original from the same era, that were sourced though Traditional Furniture Restorer. The original hinge was to bent to re straightened so that the box would sit together correctly.</p>	



	 <p><i>Left hinge, after.</i></p>	 <p><i>Right hinge, after.</i></p>	 <p><i>Right hinge, before.</i></p>
<p>Mother of pearl escutcheon</p>	<p>Mother of Pearl tile sheet PVC backed sourced from Lumea, was back on veneer sheet with hid glue. This was then cut to size with scalpel. The key hole was drilled out and filed to shape.</p>		
	 <p><i>Front of escutcheon</i></p>	 <p><i>Back of escutcheon</i></p>	 <p><i>Fitted escutcheon</i></p>
<p><b>Other:</b></p>			
<p>Hessian bottom covering</p>	<p>The hessian bottom has been replaced with green felt, this will give greater protection to the surface that the box is placed on. The felt was adhered with hide glue.</p>	 <p><i>Felt covered bottom, after.</i></p>	
<p>Broken divider</p>	<p>The joint has been cleaned up and resecured with hide glue.</p>  <p><i>Broken divider in clamps.</i></p>	 <p><i>Photo of divider, after.</i></p>	
<p>Missing Divider</p>	<p>New divider was cut out of cedar to match original timber. The top edge has been painted with pigments and shellac to blend repair.</p>		



	 <p><i>Cedar piece on left, original divider on right to match to.</i></p>	 <p><i>The replacement divider on left, original divider on right.</i></p>
Broken catch hole	The bottom slope catch hole has been filled with epoxy putty. The hole was drilled out to fit the slide catch.	
Old veneer repair	The old veneer repair has been reglued down with hide glue, and left as is for the provenance of the box to be told.	
	 <p><i>Old repair, before.</i></p>	 <p><i>Old repair, After.</i></p>
Black marker	Black marker cleaned off with soap cleaning solution with ease.	
	 <p><i>Black marker, Before.</i></p>	 <p><i>Black marker, After.</i></p>
Slope timber shrinkage	The bottom slope was able to be dismantle into three pieces, old repair glue was clean off and pieces where re adhered with hide glue with correct alignment (Rodd 1076 p23).	
Slope covering	The old leatherette was removed. The new leather covering will made out of antique green coloured goat skin leather. The leather will have a gold leaf pressed edge. The leather will be adhered with hide glue. The leather slope is not complete yet, and will be complete on the 4/11/2019, this is due to access of gilding tools. I have the opportunity to be taught by Robin Tait on how to complete a gilded leather slope. I think this will be the best option for retaining this box's ethnicity and to build on my own experience.	



*Gold tooling option one.*



*Gold tooling option two*



*Green goat leather insert.*



## Results

### Assessment of results:

I am satisfied with the outcome of the conservation of the writing box. The method that I used for repairs worked without issues. The box now looks like it has been well looked after and not like it was stored in the shed for the last 20 years. The patina and authenticity have been maintained although extensive repairs had to be undertaken to ensure the sustainability of the veneer and boxes structure. The leather slope covering will be new, but the replacement that had previously been placed in did not fit with the elegance that this writing box holds. In future I would like to use real mother of pearl for keyhole escutcheon. The fake mother of pearl does not hold the same depth of colour and clarity that the original has. The writing box can now be appreciated for the future, and lead to sharing of stories that would have been written on this slope in previous years.

**Table 5: Before and after photographs**

(Photography, Tara McLaughlin, September 2019, University of Canberra)

Before Photographs	After Photographs
 <p data-bbox="378 1287 496 1318"><i>Top Before</i></p>	 <p data-bbox="1101 1287 1203 1318"><i>Top After</i></p>
 <p data-bbox="370 1782 505 1814"><i>Front Before</i></p>	 <p data-bbox="1092 1782 1211 1814"><i>Front After</i></p>





*Right side Before*



*Right side After*



*Left side Before*



*Left side After*



*Back Before*



*Back After*



## Care and handling

**Table 4: Recommendation for future care and handling**

<b>Temperature and relative humidity</b>	The relative humidity level needs to be maintained between the range of 40-60%, with a maximum variation of 5% in any 24 hour period. This will minimise any damage the veneers and glue. High relative humidity levels and temperature or rapid changes will result in lifting, shrinkage, wrapping and cracking (WAM, 2019).
<b>Light</b>	The light level should be maintained at 50 lux to ensure best maintenance of the finish. The box should never be exposed to direct sunlight for prolonged period of time (WAM, 2019).
<b>Pests</b>	Regular check and inspection of object to ensure no sign of insect attacks (WAM, 2019).
<b>General</b>	
Storage	This object should be stored in above listed temperature and relative humidity. The object should be kept in its archival corrugated cardboard box. The box has been

	lined with foam padding covered with tyvek cloth to protect the finish and allow for constant air flow (WAM, 2019).
Display	This object should be displayed on a level surface. The object must be raised on padded blocks to ensure good air circulation. This object should be stored in above listed temperature and relative humidity (WAM, 2019).



## References

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Rodd, J. (1976). *Repairing and restoring antique furniture.* Newton Abbot: David and Charles.

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