Conservation Report

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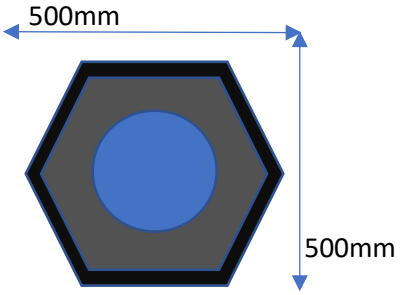
Cultural Significance of Patina

Semester 1 2020

5/4/2020

Physical Description

Table 1: Physical description		
The report was conducted by Tara McLaughlin		**Additional notes**
Object:	Side table with painted insert in the top	Painting mounted in a tabletop
Artist:	Edward Davies (1852-1927)	Signed E. Davies on Recto, bottom right.
Date:	Unknown	Through research, the artist, E. Davies would have completed the painting sometime between 1870 and 1920 (Trove 2020).
Title:	Dawn	The painter has written on bottom right corner "*Dawn E. Davies*"
Summary:	Oil painting on paper card, with timber frame and cardboard mat around the painting. Painting is of a river gorge with cliff faces.	
History:	The known history of this artwork is that it was painted by Edward Davies. The verbal history is that the table was owned by Margaret Da Deppo's grandmother. Margaret Da Deppo inherited the table in 1977.	
Materials:	Timber frame and base, with oil painting on cardboard and metal fittings (press studs, nails and screws).	
Dimension:	 *Figure 1: Size and measurements diagram*	Outside dimensions of the top are 500mm x 500mm, in the shape of a hexagon. The timber frame is 25mm wide and 20mm deep. The matboard is 460mm x 460mm in the shape of a hexagon, with a round centre.
Owner Collection:	Private collection of Margaret Da Deppo	Acquired in 1977

Photograph 1: Before, recto overall.

Photograph 2: After, recto overall.

Significance and values:

Margaret Da Deppo acquired the table in 1977, following her grandmothers passing. The tables manufacturer is unknown. The painting on the top of the table was completed by the late Mr Edward Davies of Adelaide, between the late eighteenth and the early nineteenth century.

The table holds great significance to Margaret De Dappo (born 1954) as it was owned by her grandmother. Margaret Da Deppo's grandmother was born in 1910. She was married in 1924 and resided in Orange, NSW. Margaret recalls the table was placed in the corner of her only sitting area in her small house, that also housed her 13 children. Margaret Da Deppo was born in 1954, and her father was the eldest of those children.

Margaret Da Deppo (2020) said *"They had very little, and most of what they did own was second hand. I don't believe that it was an inherited family piece. After she passed away in 1977 and while clearing out her house, which they had rented for the last 40 years, none of her children had shown any interest in the table. I had asked for and been given it."*

Photograph 3: After, recto overall. (Photography, Tara McLaughlin, February 2020, University of Canberra)

The table is significant due to the nature of its unusual design and construction. The top of the table is a framed painting which is very uncommon to see. The painted is completed on cardboard with oil paint. Cardboard is not a very usual canvas for an artist. The mat board around the painting is also painted card. This combined makes it an unusual piece of furniture (Wimkwort and Russell, P33-35, 2009).

About the Artist

Photograph 4: After, close up of signature. (Photography, Tara McLaughlin, February 2020, University of Canberra)

Mr Edward Davies was born in Newport, Wales, on April 12, 1852. He arrived in Melbourne, Australia when he was an infant with his parents. Mr Davies moved to Adelaide in 1876 where he spent the majority of his professional life working as an architect and artist. He was a member of Adelaide art circle, where he became President of the Adelaide Easel Club. He was known for his painting completed in oil and watercolour. Mr Davies had one of his landscapes displayed through the Adelaide Art Gallery. He passed on April 2, 1927 (Trove 2020).

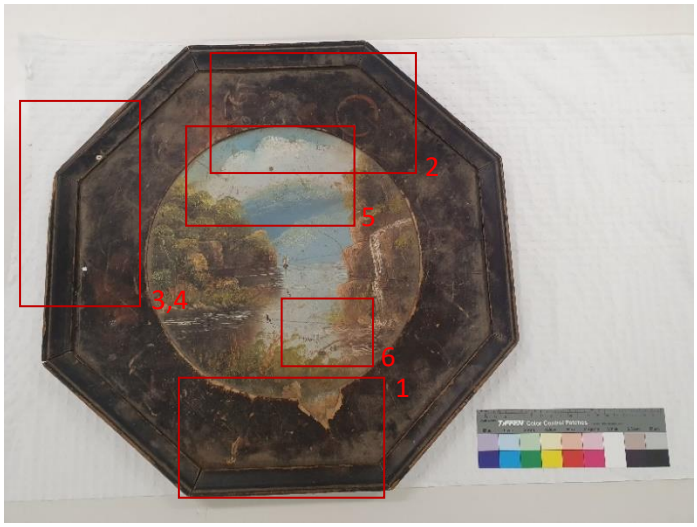
Condition Assessment (Before Treatment)

Summary of damage/deterioration

The tabletop overall is in poor condition. The painting has mutable small losses of paint material, along with a significant loss of paint material on the bottom edge. There are mutable dents and fractures from impacts on the painted surface. The painted surface has a long abrasion across the recto. The matboard also has mutable small losses of paint materials and a significant loss of board on the bottom edge. The paint material on matboard has many round rings over the surface, resulting in partial loss of the paint material. The matboard has two significant tears and warping on the bottom edge; damage looks to be caused by water. The timber frame has two significant losses on the edge. The finish on the frame is very poor condition and crazed. The tabletop has large deposits of dirt and dust over the surface.

Table 3: Identification of damage/deterioration

Overall Verso and Recto
(Photography, Tara McLaughlin, February 2020, University of Canberra)



Photograph 5: Recto Overall

Photograph 6: Verso Overall

Photograph 7: Location 1

Photograph 8: Location 2

Photograph 9: Location 3

Photograph 10: Location 4

Photograph 11: Location 5

Photograph 12: Location 6

Type of Damage/ Deterioration	Description/deterioration	Location of damage/deterioration
Chip (painting)	Loss of paint material, small, although through to the backing board.	Location 5 and 6
Loss (painting)	A major section of paint loss, through to the backing board.	Location 1
Mechanical lifting (painting)	Dents and fractures likely caused by impact on the painted surface. The paint layers have mostly been affected due to the paints fine and thin application.	All sections.
Abrasion (painting)	Abrasions over paint surface, likely caused by object scraped across the top of the painting. This has resulted in long thin marks across the surface. In some sections, this has resulted in paint loss.	All section, detailed photo location 5 and 6.
Chip (mat board)	Loss of a small amount of paint material.	All section, detailed photo location 5 and 6.
Loss (mat board)	Major loss of mat board likely caused by object catching the edge of the board.	Location 1

Mechanical Lifting (mat board)	Dents and fractures likely caused by impact to mat board's surface. This has resulted in a loss in colour.	All sections
Abrasion (mat board)	Abrasions over paint surface, likely caused by object scraped across the top of the painting. There are many round rings over the surface from an object like a cup. This has resulted in long thin marks across the surface. In some sections this has resulted in paint loss.	All sections. Detailed photo location 2
Tear (mat board)	Tear in mat board but no loss of material.	Location 1
Warping (mat board)	The bottom edge of the mat board is warped; this is likely due to water	Location 1
Loss (frame)	Loss of the corner of the frame, four (4) millimetres deep by seven (7) millimetres long. Likely caused by impact to the edge.	Location 3 and 4
Loss of finish (frame)	Loss of finish over the frame.	All sections.
Crazing (frame)	The finish material is crazed. This is likely caused by the recoating of finishing with an unsuitable product, combined with weathering from outside environmental elements.	All sections. Detailed photo location 5 and 6.
Mould	Looks to be mould damage between the mat board and the painting backing board, mainly over the bottom edge.	Under location 1
Dirt/Dust	A large amount of dirt and dust cover the object surface.	All sections

pH Test Result Summary

Photograph 13: Horiba pH reader *(Photography, Tara McLaughlin, February 2020, University of Canberra*

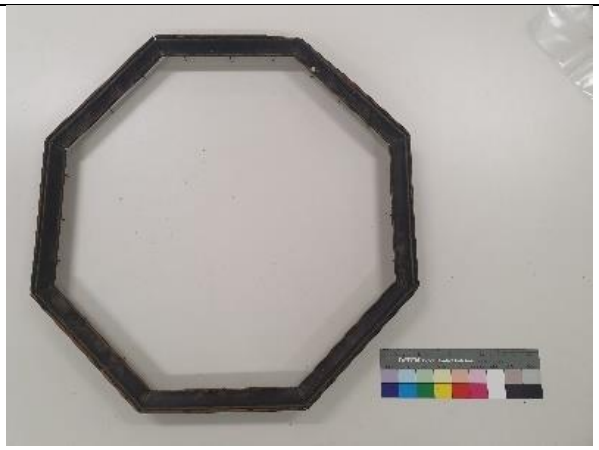
The pH of the tabletop was tested with a Horiba pH reader. The pH test was conducted with agarose gel. The agarose gel was used so that the surface did not have to come in contact with water. The results of the testing were very surprising. The visual appearance of the paper card would suggest pH reading to be very acid, which can result in further deterioration. The results showed that the paper card is not acid, concluding that the paper card is very stable with an overall average pH reading of 7.1.

Ph Tests – Horiba with Agarose gel				
	Recto Mat Board	**Verso Mat Board**	**Verso Painting**	**Verso Painting Mat**
Test 1	7.4 pH	6.6 pH	7.1 pH	7.4 pH
Test 2	7.2 pH	7.2 pH	7.0 pH	7.1 pH
Test 3	7.1 pH	7.1 pH	7.1 pH	7.4 pH
Average	7.2 pH	6.9 pH	7.0 pH	7.3 pH

Treatment Undertaken

Table 4: Treatment Proposal for damage/deterioration

Type of damage/ Deterioration	**Treatment Proposal** (Photography, Tara McLaughlin, February 2020, University of Canberra)
1. Mechanical cleaning	The surfaces of the tabletop were cleaned using mechanical cleaning methods to remove the dirt and dust. All surfaces have been brush vacuumed followed by dry brushing.
	 *Photograph* 14: recto overall
	 *Photograph* 15: Verso overall
2. Removal of painting from the frame	The backing board was removed to give access to the back of the painting. The paint was held by nails. These where removed to allow the painting to come out of frame. The painting was adhered in a section, to the back of the mat board. The two pieces were detached using a thin spatula.
	 *Photograph 16: Verso of painting*
	 *Photograph 17: Verso of the backboard.*
	 *Photograph 18: Recto out of frame.*



Photograph 19: Recto frame.

Photograph 20: Recto painting separated from mat board.

Photograph 21: Recto mat board separated from painting.

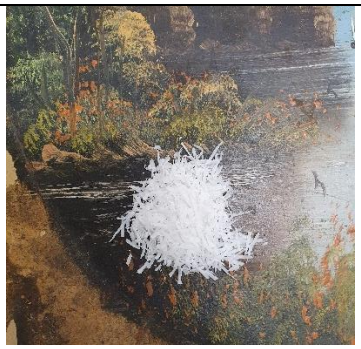
Photograph 22: Verso mat board separated from painting.

Treatment of painting and mat board	
3. Secondary mechanical cleaning treatment	Due to the high amount of dirt throughout each layer of tabletop, it was mechanically cleaned a second time by brush vacuuming, followed by dry brushing.
4. Treating mould	 *Photograph 23: Mould treatment.* The mould was treated with 70% Ethanol and 30% water. This treatment was used as it is the most efficient way to kill microorganisms. The mould is currently inactive. The finished surfaces were tested for Ethanol solubility before application (Sheerer 2012).
5. Aqueous cleaning	The painted surfaces were cleaned with deionised water swap (Photograph 25). The application of the swab is to be used in a rolling motion with a damp swab. This will ensure that it is applied in the most controlled manner (Treasure, 2020). Due to the larger amount of dirt and marks over the painted surface, there were sections which needed further attention to remove marks. A ground eraser was used with cotton

	wool pad and gloves, to give a barrier to the surface from oil on hands. This was rubbed over the surface and was highly effective in removing marks, and more delicate than using an eraser (Photograph 26). For the more stubborn marks, a dirt eraser was used which was also highly effective (Photograph 24).

Photograph 24: Dirt Eraser.

Photograph 25: Swabs from painting.



Photograph 26: A ground eraser.

6. The backing of mat board

The tear in the mat board needed backing to give support to the split and to other sections of loss over the mat board. The board was backed using Tengucho paper (Weight 5.0g/m2) using the following method (Batterham, 2020):

1. Tengucho paper placed on mylar and sprayed until wet, ensuring that wrinkles are removed.
2. The Tengucho paper was covered with the starch paste using the 'Union Jack Method'. Starch paste applied with a Japanese paste brush.
3. The mat board was placed on the second sheet of mylar and sprayed until wet, ensuring that wrinkles are removed.
4. The mat board was then flipped over and placed centre of the Tengucho backing paper.
5. The mylar was left on the finished side on the mat board so that it could be smoothed out with a Japanese smoothing brush. The object was then pounded with the brush to ensure a good bond is made.
6. The mylar was removed by carefully rolling it off the mat board.
7. A piece of Reemay was placed on the face of the object.
8. The second piece of Reemay was placed on the other side.
9. The object was placed in the press with blotters to dry. The object was checked at 10min, 30min, 1 hour and 2 hours, replacing the blotters as need.
10. The object was then left in the press for 24 hours to allow for it dry completely.
11. When dry, the backing was cut with a scalpel to shape.

The starch paste was made using the following method:
Combine 1 tsp of wheat starch with 6 tsp of water in a microwave-safe container. Stir until dispersed. Set the microwave for 30 seconds at HIGH and cook for 20 seconds, or until the paste is translucent and the consistency of cake batter. Stop the microwave at the 20-second mark and stir the paste with a spoon. Return to the microwave and let cook for the remaining 10 seconds. Stir again, remove from the microwave and let stand. The cool paste forms a semi-solid mass. To use: Strain and dilute with water to a thin, cream-like consistency (American Institute of Conservation 2020).

	The warping on the bottom edge of the mat board was removed through the backing process.

Photograph 27: Recto mat board warped edge.

Photograph 28: Verso mat board after backing.

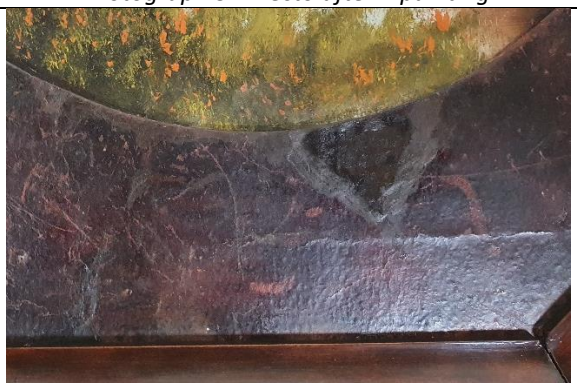
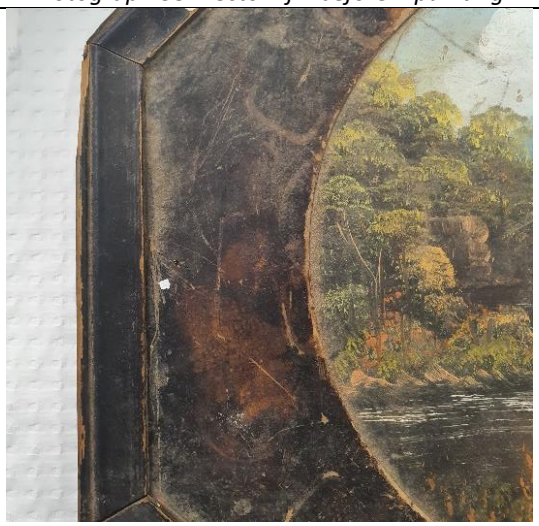
Photograph 29: Recto mat board after backing.

7. Paper pulp infill	The tear was filled using Kozo paper (Weight: 70g/m2) this was laid in layers as the tear is ripped and steps through the layers of the card. Methyl -Cellulose was used as the adhesive. The smaller section around the outside that needed extra fill to give a flat and uniform finish was filled using Japanese tissue fibres and Methyl-Cellulose as the adhesive. Smaller sections of loss also required fill with Japanese tissue fibres. (Batterham 2020).

Photograph 30: Recto paper infill.

Photograph 31: Recto paper infill.

	 *Photograph 32: Recto paper infill.*	 *Photograph 33: Recto paper infill.*
	 *Photograph 34: Recto paper infill.*	 *Photograph 35: Recto paper infill.*
8. Inpainting on Mat board	The multiple sections of paint loss over the board and the paper pulp were all in-painted. All sections that required in-painting were sealed with a Methyl-Cellulose barrier (American Institute of Conservation, 2020). The losses where then in-painted with Chromacryl acrylic paint. The colours were made using variation in mixing of black, cool red and burnt umber. Tests were undertaken before application to test the gloss level of paint. Sections of the mat board needed a higher gloss level. This was achieved by applying a layer of Methyl-Cellulose over the top. (Treasure, 2020). The sections to be in-painted where carefully chosen to assist in maintaining the patina of the backboard.	

<table>
<tr><td></td><td> 
Photograph 36: Recto before inpainting.</td><td> 
Photograph 37: Recto after inpainting.</td></tr>
<tr><td></td><td> 
Photograph 38: Recto infill before inpainting.</td><td> 
Photograph 39: Recto infill after inpainting.</td></tr>
<tr><td></td><td> 
Photograph 40: Recto before inpainting.</td><td> 
Photograph 41: Recto after inpainting.</td></tr>
<tr><td>9. Inpainting on painting</td><td colspan="2">Loss of paint material in the small sections are through to the card. The card was sealed with a Methyl-Cellulose as a barrier (American Institute of Conservation, 2020). The losses were then in-painted with either watercolour or acrylic paint. Tests were undertaken before to ensure the correct gloss is matched (Treasure, 2020).</td></tr>
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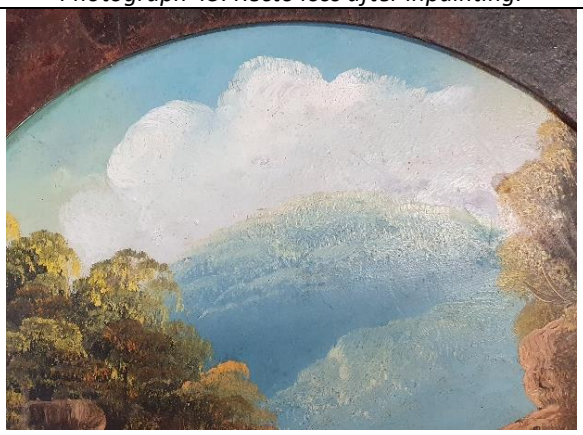
Photograph 42: Recto before inpainting.

Photograph 43: Recto after inpainting.

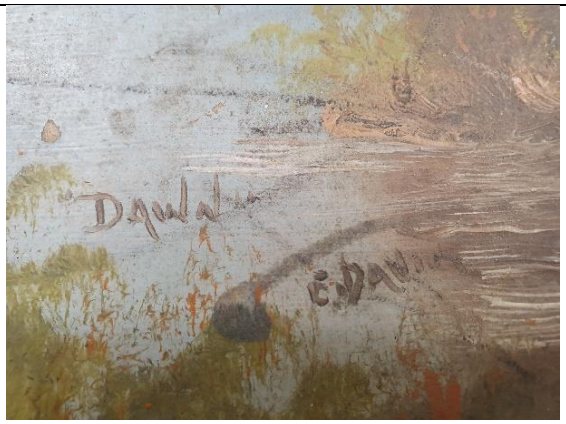
Photograph 44: Recto loss before inpainting.

Photograph 45: Recto loss after inpainting.

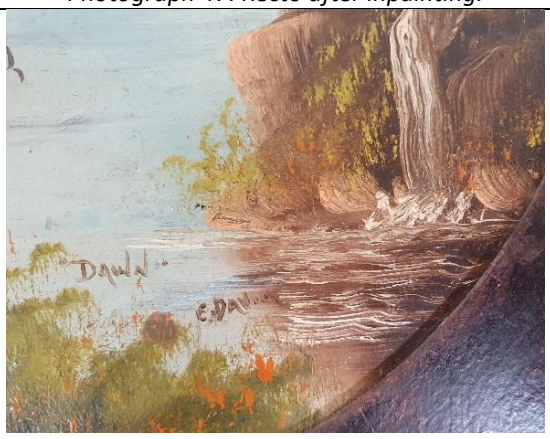
Photograph 46: Recto before inpainting.



Photograph 47: Recto after inpainting.



Photograph 48: Recto before inpainting.



Photograph 49: Recto after inpainting.

Treatment of frame		
10. Removal of finish	The finish on the tabletop frame and base was in extremely poor condition. The finish had been recoated with a coating that caused frying, leaving the finish crazed and unstable. The finish had to be removed as it was not keyed to timber surface. There is no way to preserve the finish and give the client their required outcome. The finish was removed using citrus stripper. This stripper was used as it allowed for the finish to be removed without damage to the timber (Minutillo, 2016).	 *Photograph 50: Table base before*
	 *Photograph 51: Tabletop frame before*	 *Photograph 52: Table base after finish removal.*
11. Repairs of losses and preparation of timber surface.	The major losses on the frame had a piece of timber cut to thickness to fit the space. The new timber was adhered with hide glue (Rodd 1976, p122). The join was stopped with Timbermate wood stop to fill any small imperfection on the join, and this will ensure that there is a seamless repair at the end of the polishing process (Minutillo, 2016). The timber surface was lightly sanded to a polishable standard.	 *Photograph 53: Base and top after preparation.*

<table>
<tr><td></td><td> 
Photograph 54: Major loss before.</td><td> 
Photograph 55: major loss after.</td></tr>
<tr><td></td><td> 
Photograph 56: major loss with new timbers.</td><td> 
Photograph 57: Major loss after cutting.</td></tr>
<tr><td></td><td> 
Photograph 58: Cut in after preparation and reassembly.</td><td> 
Photograph 59: Cut in after preparation and reassembly.</td></tr>
<tr><td>12. Refinishing</td><td>The frame has been stained using pigment oil stain. The stain was made by using eight parts turpentine, four parts linseed oil and one-part terebene, then burnt umber and black carbon pigment is mixed until the desired colour was achived. The stain is required to dry for 24 hours before sealing. The table has been finished using traditional French polish methods, using shellac. Shellac is a fast-drying evaporative coating characterised by exceptional clarity and depth. Shellac consists of resin (orange shellac flake) and alcohol (methylated spirits), mixed at 250g of flake to 1 Litre of methylated spirits. To blend repairs, they were grained (in-painted) after the sealing coat of shellac. For the in-painting, pigment colours were used to match the colour. The pigments were dissolved in shellac (using a</td><td> 
Photograph 60: Orange shellac flake.
 
Photograph 61: Wax.</td></tr>
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	blinder) and methylated spirits, as the thinning agent, to ensure a good flow of colour (Minutillo, 2016). The finish has then been waxed with dark cabinet wax, used to enhance the finish, and give it protection from light and daily use.	
13.	 *Photograph 62: Table base after polishing before waxing.*	 *Photograph 63: Table base after waxing and assembly.*
14. Mounting the Painting	The painting has been remounted in the frame. The matboard was placed into the frame with thin archival card cut to the same shape and placed on top. This is to give a barrier layer between the painting and mat board. The painting was then placed in the frame with blue fluted archival card on top to give protection to the painting.	 *Photograph 64: Mat board in the frame.*

Photograph 65: Mat board and archival *card in the frame.*

Photograph 66: Mat board, archival *card and painting in a frame.*

Photograph 67: Mat board, archival *card, painting and fluted arrival card in the frame*

Photograph 68: Nailing on backboard.

Assessments of Results

The treatment that was undertaken on the table was successful. The mat board was able to be stabilised and conserved. The repair of the major loss was challenging to complete as there has been very limited research available on this type of repair. The repair was possible due to the combining many different techniques. The mat board is now stabilised and has been repaired, while maintaining the patina. The aesthetics of the painting have been greatly improved by cleaning and inpainting. The restoration of the tabletop frame and base has brought out the original charm and history of the painting.

Care and handling

Table 4: Recommendation for future care and handling	
Temperature and relative humidity	The relative humidity level needs to be maintained between the range of 45-55%, with a maximum variation of 5% in any 24 hours. This range will keep the painting and the table stable. High relative humidity levels and temperature or rapid changes will result in shrinkage, wrapping and cracking (WAM, 2019).
Light	This table is a part of a private collection and is on display within a house. The light level should be maintained to a minimum. The table would be best stored away from the window and natural light source. The recommendation is a maximum of 250 Lux. The UV should not be above 75 microwatts per lumen, and preferred UV is below 30 microwatts per lumen. The painting is covered with a UV protective film.
Pests	Dust should be kept to a minimum. Cleaning of the area regularly should be undertaken. The table should be stored in a well-ventilated area. This will assist against mould and pests. Regularly check and inspect the object to ensure no sign of insect attacks or mould growth. (WAM, 2019).
General	
Storage	This object should be stored in the above listed temperature and relative humidity. The table should be stored with the tabletop and base covered separately in a Tyvek cloth to protect the finish and allow for consent airflow (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 must be displayed in line with the temperature and relative humidity recommended above (WAM, 2019).

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