

The Conservation Journeyman: A Traditional Approach to Training and Education | Shane Orion Wiechnik, 2023

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1. Acknowledgments

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2. Executive Summary

In 2022 furniture conservator and George Alexander Trust Fellow, Shane Orion Wiechnik, spent 11 months travelling in the USA, Europe, and Mediterranean region as a conservation/restoration Journeyman. He spent 1-5 weeks shadowing or working in different workshops ranging from newly established repair and refinishing shops, to experienced heritage conservation laboratories. While travelling, he visited and met with a diverse range of professionals working in furniture repair/restoration/conservation or related fields.

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Here in Australia there is a need for and shortage of skilled furniture professionals to maintain our broad range of furniture objects, on a heritage conservation level, a general repair level, and everywhere in-between. Unfortunately, surveys continue to show a lack of opportunities for aspiring professionals to gain skill, experience, and knowledge nationally in these fields. The few experienced professionals working in furniture restoration and conservation typically trained overseas and have limited capacity to continue their own education and professional development while in Australia or to train others. The Fellowship provided opportunities not just for the Fellow to improve his own skills development, but to gain an understanding of how international communities support skills development in their heritage industries as well as support and develop sound repair infrastructure at a national level.

This research project was designed to garner a qualitative review of the state of western furniture repair and conservation, dive deep into the skills and practices involved, and return with an understanding of what can be done in Australia to train furniture workers, encourage a culture and market of repair, and raise the profile of furniture and wooden object maintenance on all levels.

3. Fellowship Background

FELLOWSHIP CONTEXT

Australia's material history, heritage, and impact is large, varied, and growing. The history of wooden objects and artifacts in Australia can potentially be traced back more than 20,000 years. However, in the last two hundred years there has been a vast acceleration in introduced and locally made wooden objects including furniture and buildings. The history of these objects highlights the great capacity of crafts and culture, and demonstrate some of the tragedies of colonialism and overconsumption.

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There are myriad reasons why Australia should invest in good conservation, restoration, and repair of furniture and wooden artifacts. Artifacts of archaeological or cultural significance require an informed level of care and maintenance, or else we risk damaging or losing these objects forever. Equally, objects of regular use and consumption contain embodied energy (the energy and raw material costs of their production and transport) – in some cases these materials were derived from now critically endangered species – and if we want to see a more sustainable future and economy, investment needs to be made in quality repair and maintenance of these pieces (Amit Kapur, 2004).

All aspects of furniture maintenance, from simple repair, to archaeological preservation, require a workforce in Australia that is specially informed, skilled, and integrated.

A SKILL SCARCITY

The challenge in Australia of learning specialised skills within the furniture conservation and restoration field has been noted and discussed for decades. What follows is a short summary of some of those discussions and findings, demonstrating our need and awareness of a lack of expertise and training opportunities in Australia, in regards to furniture conservation and restoration.

It was initially raised in 1986 by Australia's first official furniture conservator, Julian Bickersteth (employed at the Museum of Applied Arts and Sciences) in a report outlining what was seen as a problematically small field of professionals and professional opportunities with no national training programs (Bickersteth, 1987).

In 2000, the Heritage Collections Council released the results of a survey entitled *Attainable and Sustainable; Skills Gaps in Conservation in Australia*. The results showed that many conservators found it difficult to receive specialised training, that education opportunities failed to incorporate practical skills and crafts, and that those who could competently perform these skills were gravely few (Anon., 2000).

In 2006, Canberra Furniture Conservator Greg Peters embarked on a fellowship overseas to

research coatings on wooden objects. He wrote in his report that "...the knowledge and expertise furniture conservators require, is simply not available in Australia." (Peters, 2006)

Again in 2019, a survey of conservators and professionals mirrored the 2000 results. A Conservation Overview of Gaps in Traditional Trade Skills in Australia published in the AICCM Bulletin revealed an acknowledged gap within the profession for opportunities for conservators to learn and gain practical traditional skills. The opportunities in Australia to learn and share traditional skills are low. The number of professionals and leaders in the furniture conservation field is few (Bronwyn Dunn, 2019).

While having been identified as a problem repeatedly in the past, not much progress has been made in resolving the challenges. The majority of the narrow pool of Australia's furniture restorers and conservators have sought education and training outside of Australia, but their expertise is often limited to objects and techniques from where they are trained. This shows that one unrecognised difficulty in attaining specialised skills is compounded by the variety of skills needed, in large part due to Australia's multicultural heritage.

A DIVERSE SKILLSET

Australian first nations people have a long history of working with wood. The oldest existing wooden boomerang, for example, has been dated to be roughly 10,000 years old, but wall art and oral history suggest that these objects could have a history in Australia surviving more than 20,000 years (Bordes, 2014). Carvings, sculptures, constructions, and art have existed in Australia for millennia.

In the 18th and 19th centuries, European and Asian trade, invasion, and immigration have culminated in a varied and controversial history of built wooden objects including furniture. As such, the origins of their design and craft come from across the world.

The earliest known signed and dated piece of furniture made in Australia is a sheoak (*Casuarina*) specimen cabinet from 1815, made by apprentice James Packer of Sydney. James Packer trained under Irish furniture and cabinetmaker, Lawrence Butler, a convict sentenced to government work in Australia by the British. (Bell, 2004)

Since then, skilled craftspeople and traditions have emigrated from all over the world. Objects of art and function have been imported internationally, and the material and furniture landscape of today is diverse. However, European and American markets and trends have dominated the Australian import and design sector for the last 70 years, leading to a large collection of high end and common furniture objects of these traditions, and fine furniture and cabinetmaking schools and magazines in Australia follow American and British traditions. As such, Australians have collected

a large and diverse array of both high end and common furniture objects, either imported or made locally following mostly British and American traditions, however there still exists no dedicated restoration, repair, or conservation courses to allow Australians to preserve these objects

FELLOWSHIP METHODOLOGY

Recognizing an international influence on Australian furniture objects, and a limited range of training options and professionally trained restorers and conservators in Australia, it was decided to trial an international work experience approach to training and skill development.

While ideally the Fellow would engage with craftspeople from Asia, Africa, Europe, and the Americas, limitations were set on the research with an emphasis on American, European, and Mediterranean traditions and modern approaches, based on the Fellow's first-hand experience and observations revealing a greater quantity of objects from these traditions and locations.

A JOURNEYMAN APPROACH

The research fellowship was designed around the traditional journeyman years of craftspeople in France and Germany. Going back to medieval times, aspiring master craftspeople, upon completing an apprenticeship, would travel and work in different workshops for short periods of time to learn different approaches and to share their skills abroad. This kind of immersive research and training relies on spending time helping in a workshop and observing how a master or other such professional conducts themselves in real world scenarios (Werner, 1981).

These journeymen are often supported by guilds or other organisations which vouch for the workers and support them. As there is no such tradition in conservation and no such body in Australia for restorers or conservators, it was necessary that the Fellow organize the trip himself.

The Fellow consulted with AICCM Mentor, Greg Peters, a furniture conservator based in Canberra. As part of the AICCM mentor/menteeship program, Greg advised on how to arrange the trip and how to combine strict planning with flexible time, so that the Fellow could follow up on any leads discovered along the way. This consultation, in combination with the international travel climate and political climate created in the wake of the pandemic, informed a loose and open structure of the scheduling.

The Fellow arranged tenuous agreements with different workshops and institutions for the year 2022 but left the specifics of exact dates open to adjustment and change. The Fellow also arranged for only 7 months of the total 11-month journey, with the understanding of using the remaining time to follow up on opportunities discovered along the way.

For each workshop host, the Fellow would go in every working day as if he worked there, and assisted on any projects, tasks, or other activities that the host required of him

A NOTE ON COVID-19

8 *AS THE RESEARCH WAS CONDUCTED STARTING IN DECEMBER 2021 AND COMPLETING IN NOVEMBER 2022, THE COVID-19 INTERNATIONAL PANDEMIC HAD BOTH DIRECT AND INDIRECT IMPACTS ON THE FELLOWSHIP. MOST WORKSHOPS AND INSTITUTIONS WERE UNABLE TO CONFIRM AVAILABILITY WELL IN ADVANCE, GIVEN THE SHIFTING NATURE OF POLICIES AND THE DISEASE ITSELF. THE FELLOW ALSO TOOK A PERSONAL RESPONSIBILITY TO AVOID TRANSMITTING THE VIRUS UNNECESSARILY TO ANY OF THEIR HOSTS OR OTHER INDIVIDUALS. THEY WERE FULLY VACCINATED BEFORE LEAVING, AND ACQUIRED A BOOSTER VACCINATION WHEN ELIGIBLE ON THE TRIP.*

JOURNEYMAN HOST SELECTION

Selection of workshops and institutions for visit was handled via a matrix of different criteria: Location, Experience, Specialty, and Willingness to support the Fellow.

It was important, as part of the Fellow's mission to gain a broad understanding of approaches and experiences across the furniture restoration/conservation industry, that the hosts and institutions visited represent a range of the different criteria.

Beginning the search for hosts in 2020, the Fellow reached out via personal and professional networks to find workshops and institutions open to the idea of having an emerging professional shadow or volunteer in their organization for 1-5 weeks. Social media was utilized to make connections and garner interest.

Certain limitations were uncovered, including language barriers, and whether a workshop had enough work on at a given period to support the Fellow. However, there were enough willing hosts to complete the journey, and the Fellow achieved the following final itinerary of journeyman hosts.

USA

F. CAREY HOWLETT AND ASSOCIATES (MONTROSS, VA) – 4 WEEKS

- Former head of conservation at Colonial Williamsburg. Specialising in southern and Virginian furniture and architectural conservation.

KERRIGAN RESTORATIONS (BALTIMORE, MD) – 1 WEEK

- Furniture restorer and finisher, trained through work experience in Baltimore. Recently established private practice.

N E HISTORIC RESTORATION (BOSTON, MA) – 3 WEEKS

- Period furniture maker and restorer. Graduate of the Furniture Institute of Massachusetts. Veneer and banding specialist. Established Practice

SPAULDING FURNITURE RESTORATIONS (AUGUSTA, ME) – 1 WEEK

- Second Generation furniture restorer. Spray and refinishing specialist. Established Practice

FRANCE

ATELIER KOPAL (PARIS) – 2 WEEKS

- Master Restorer graduate at L'Institute National Du Patrimoine. Operating in Paris on state and private objects. Recently established practice.

ATELIER KOPAL (RENNES) – 3 WEEKS

- Master Restorer graduate at L'Institut National Du Patrimoine and Professional Ebenist. Operating in Rennes on state and private objects, and refitting sailing vessel for international research trip.

THE NETHERLANDS

BUIJS EN STREEP; FURNITURE AND INTERIOR CONSERVATION (HAARLEM) – 5 WEEKS

- Furniture and Architectural conservators working with institutions and private clients across The etherlands. Highly established practice with regular interns. Active in national conservation network.

GREAT BRITAIN

H.T.MORRIS FURNITURE (BRISTOL) - 4 WEEKS

- Traditional fine furniture maker and restorer. Recently established practice.

BAINBRIDGE CONSERVATION (LONDON) – 4 WEEKS

- Former Furniture and Paper Conservators at the Victorian and Albert Museum, and Masters Graduates at West Dean College. Established practice in London. Specialising in East Asian lacquer.

LONG FRENCH POLISHING (WARMINSTER) – 1 WEEKS

- Professional piano and furniture French polisher specializing in shellac based piano finishes.

PHILIP BURROWS RESTORATION (GUERNSEY) – 3 WEEKS

- Second generation furniture restorer. Previously working at Hatfields Restorations in London. Recently established practice.

KENDALL COLLEGE (KENDALL) 1 WEEK

- Cities and Guilds accredited carpentry and joinery course at Kendall College in The Lakes District.

AUSTRIA

ADDISON CONSERVATION (VIENNA) – 4 WEEKS

- Former tutor at West Dean College. English and Austrian trained partnership. Established practice in Vienna.

ISRAEL

ZETLAND CONSERVATION (TEL AVIV) – 3 WEEKS

- Studied furniture restoration/conservation in Florence Italy. Established Practice in Tel Aviv.

INSTITUTIONAL AND PROFESSIONAL VISITS

Journeyman style host workshops were the primary focus of the research project, but this long-term immersive engagement in selective workshops was supplemented by interviews and tours with other private practice conservator/restorers, museum and institutional conservation labs, education facilities, and related professionals.

Many of these facilities were determined primarily by proximity to workshop hosts, and the connection workshop hosts had with the institutions. In some instances, separate visits were arranged to meet with selected individuals and organisations highly recommended by colleagues and hosts.

In the case of New York City, it had been arranged that Yuri Yanchyshyn at Period Furniture Conservation would initially be a host, but due to a limit on available work, they were not able to support the Fellow for a full two-week period.

Special trips to Germany and Malta were made to meet with professionals in each location, as they were determined to represent a significant diversity from other workshop hosts.

Ultimately, the Fellow achieved the following itinerary of professional visits and meetings (This list only includes organized visits where the Fellow met with staff or owners of the listed organisation and not where the Fellow attended as a general attendee. Those locations have been omitted for brevity):

USA

- Colonial Williamsburg Furniture Conservation Department – Williamsburg, VA
- Stuffed and Tufted Furniture Upholstery – Baltimore, MD
- Period Furniture Conservation – Jersey City, NJ
- The Metropolitan Museum of Art Furniture Conservation Department - NYC, NY
- Rudolf Steiner School Woodworking Classes – NYC, NY
- Pierre Atelier Furniture Upholstery Workshop – NYC, NY
- Fine Wood Conservation, LTD – NYC, NY
- Tenement Museum Conservation Department (phone interview) – NYC, NY
- Boston Museum of Fine Art Furniture Conservation Department – Boston, MA
- Yale Furniture Study – West Haven, CT
- North Bennett Street School - Boston, MA

FRANCE

- Museum of Decorative Arts Furniture Conservation Department – Paris
- Arbor Et Son Luthier Workshop – Rennes

THE NETHERLANDS

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- Stichting Ebenist Furniture Conservation Conference – Amsterdam
- Machteld Jacque Mobelrestauratie – Den Haag
- Helsloot Trappen (heritage staircase maker) – Utrecht
- Koolwijk Mobelrestauratie – Utrecht
- Restauratie Center - Hilversum

GREAT BRITAIN

- The Victoria and Albert Museum Furniture Conservation Department – London
- Hatfields Restoration - London
- West Dean College – East Sussex
- English Woodland Timbers – East Sussex
- Jarrad Belton Furniture – East Sussex
- Craven Conservation and Restoration, LTD – Ely
- Yannick Chastang Conservation – Kent
- Candie Museum – St Peter Port
- States of Guernsey Waste Management Department – Guernsey
- Gallo Roman Ship – Guernsey
- Waters and Acland Furniture School – Staveley

GERMANY

- Bavarian Palace Administration Furniture Conservation Department – Munich

AUSTRIA

- Silvia Miklin (East Asian Lacquer artist and conservator) – Vienna
- Reparatur und Service Zentrum – Vienna
- Academy of Fine Arts Wooden Object Conservation Department – Vienna

MALTA

- Heritage Malta Conservation Department – Kalkara
- National Archives of Malta – Rabat
- Wood Conservation, LTD – Qrendi
- Atelier del Restauro – Naxxar

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ISRAEL

- Studio Techelet – Tel Aviv
- Shay Avrahami Restoration – Tel Aviv
- Habima Theatre Props Department – Tel Aviv
- Yaniv Malz Fine Furniture Maker – Tel Aviv

FELLOW BIOGRAPHY

Shane Orion Wiechnik is a Conservator/Restorer of furniture and wooden artifacts based in Sydney, Australia and is the director of Crafted Conservation, where he operates as a furniture and wooden objects conservator and consultant internationally. He has previously worked for Renaissance Conservation and International Conservation Services in Sydney.

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He started his career working with furniture as a repairer and workshop manager with environmental charity, Bower Reuse and Repair Centres, where he is now a Board Member and Member Director. He holds a Graduate Diploma in Conservation of Furniture and Related Objects from West Dean College in Southern England where he was awarded the Geoffrey Moss Prize for his work from the British Antiques Dealers Association. He has also previously attended international education programs in Japan, including a four-week traditional Japanese carpentry program at Suikoushya International Craft School.

Shane is passionate about education and skill sharing, and has been teaching woodworking and restoration courses in Australia for Sydney Community College and Heartwood Creative Woodworking as well as independently for over 6 years.



Figure 1. Shane Orion Wiechnik working on a Davenport desk in Philip Burrows' workshop on Guernsey.

4. Abbreviations / Acronyms / Definitions

AICCM – Australian Institute for Conservation of Cultural Material

Circular Economy – A movement towards an economic/trade/production model focused on keeping materials in circulation through reuse, repair, recycling, and modification in order to reduce the depletion of raw materials and excess energy and carbon consumption through raw material processing.

East Asian Lacquer – A polymer coating material produced from the sap of the Chinese Lacquer Tree (*Toxicodendron Vernicifluum*) used to seal and protect timber as well as create ornate decorative surfaces.

Embodied Energy – The material, carbon, and energy cost that has already occurred in the creation and transport of an object.

Kintsugi – Traditional Japanese technique of repairing broken ceramic with urushi or east Asian lacquer. Often decorated in gold or other metallic powders.

Marquetry – The use of cut timber veneers and other thing materials to create decorative patterns and illustrations on the surface of furniture.

The Met – The Metropolitan Museum of Art

Minbar – A short flight of steps, often highly ornate, used by a preacher in a mosque. Often made of wood and decorated with a geometric panel design.

RUSZ - Reparatur und Service Zentrum

Urushi – Japanese term for East Asian Lacquer

Veneer – Thin slices of timber, 5mm or less, adhered to the surface of an object.

5. Fellowship Learnings

Due to the broad nature and extended period of the research project, a range of themes were able to be pursued by the Fellow. While practical skill development and hands-on professional practice were a focus of the project, the nature of an 11-month journeyman approach with dedicated supplementary institutional and professional meetings gave the Fellow the opportunity to develop a qualitative review comparing practices, objects, educational opportunities, and materials in different countries and regions.

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The fellowship learnings have been divided into these subjects to give an overview of their findings in these areas. As the project was extensive and diverse, it is not possible to list all things discovered and practised, so the focus is on elements that helped affect the Fellows Recommendations and Considerations listed further on.

PRACTICAL SKILLS AND EXPERIENCE

Through immersive hands-on practice, the Fellow worked on over 40 different objects and projects internationally during the course of his research. From this experience he has been able to break down different aspects of the work experienced into key elements. This breakdown and understanding of approaches help inform his recommendations on necessary practical education required in Australia.

In some cases, for the sake of brevity, examples have been chosen as representative of the findings.

A NOTE ON BEST PRACTICE

THE NATURE OF THE JOURNEYMAN APPROACH TO RESEARCH ENGAGED THE FELLOW IN PRACTICAL EXPERIENCE AS IT HAS BEEN AND IS CURRENTLY BEING DONE IN DIFFERENT PLACES BY A RANGE OF PRACTITIONERS WHO IN SOME CASES HOLD DIFFERING ETHICAL OPINIONS ON APPROACH AND BEST PRACTICE. THE REPORT HERE PRESENTS ALL EXPERIENCES AND FINDINGS RELEVANT TO THE RECOMMENDATIONS AND CONSIDERATIONS BUT IS NOT AN ENDORSEMENT OF ANY PARTICULAR PRACTICE AS BEST.

STRUCTURE AND JOINERY

Stability of an object was considered by nearly all workshops visited to be the primary responsibility and first thing to be addressed in assessment of a piece of furniture or other object. In most cases with furniture and architectural objects, the structural stability of the piece is the primary focus of this assessment. Provided the deterioration of the decorative surfaces is not too delicate, it is determined whether the joinery or other structural elements are still supporting the object, and in the case where it will return to use or be transported regularly, will it be able to withstand this use.

While visiting The Met, Senior Conservator Mechtild Baumeister presented the Fellow with a decorative wooden panel from an 8th century minbar door. Mechtild's work was not to treat, or modify the object, but simply to assess whether it was stable enough, and whether the structure was sound enough, for the object to be transported for display in another museum. She demonstrated the results of X-ray analysis to help look into the mortise and tenon joints and other structural elements where she could assess their current state. To preserve the archeological aspects of the minbar panel, no treatment or modifications would be done. If it was determined unsafe for travel, then it would not be sent.

In some cases, approaches to stabilizing an object with minimum intervention are sought, including no intervention as above, injection of adhesives, the development of mounts or other external supports, or the inclusion of new bracing components. However, in cases where an object is going back into use, these approaches are often deemed unsatisfactory.

While visiting with Bruijs en Streep in Haarlem, Netherlands, the Fellow undertook a four-week project carefully disassembling, stabilizing, and reassembling a 19th century frame and panel door from the Teylers Museum in Haarlem. Remko Streep guided the Fellow through the careful disassembly of the object, with minimal to no damage to the piece. Utilising their material and historical intelligence of the object, the Fellow was able to disrupt adhesion, remove structural pieces, and slowly see the door taken apart into its components

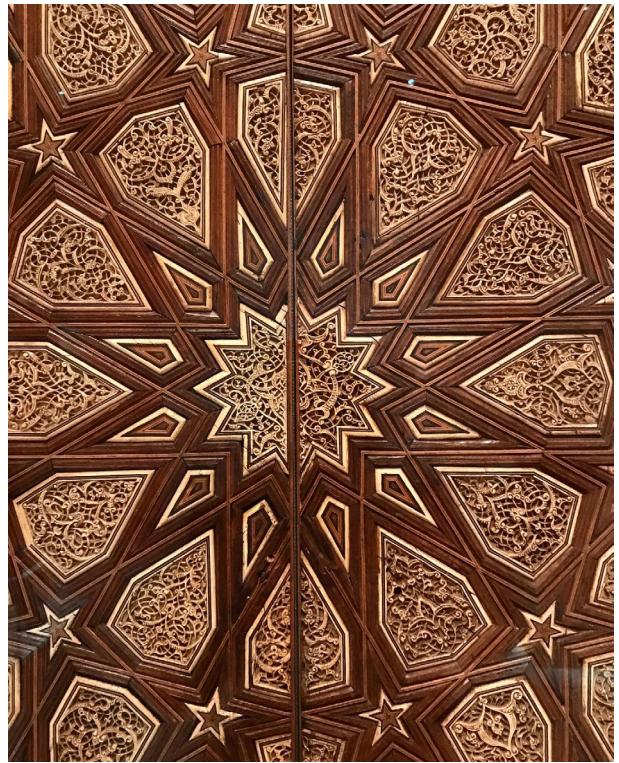


Figure 2. Close up of a minbar panel on display at The Metropolitan Museum of Art

Remko explained to the Fellow how the specific construction type (wedged tenon joinery) and nature of the material (in how it shrinks as it dries over a 50-100 year period) led to the gaps in the original joinery that now were causing structural instability. This instability was deforming the object, leading to further damage.

The two were able to rectify all gaps and structural insecurities, and return the door to a solid form using reversible adhesives in a manner that could be repeated in the future if required.

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Figure 3. 19th Century door from the Teylers Museum prior to disassembly



Figure 4. Carefully disassembling the Teylers Museum door in the Bruijs en Streep workshop using a shop modified tool.

What the Fellow found between all of his experiences, including the 19th century frame and panel door and the 8th century minbar door, was that a thorough understanding of wooden construction techniques from different time periods and places as well as deterioration and aging effects on the materials were essential aspects of the conservator's skillset. This understanding, visualization, and physical manipulation of joinery and other structural elements is an important distinction between the furniture conservator and a general objects conservator.

CLEANING

Cleaning of heritage surfaces is not always necessary or recommended, and different workshops and countries visited had different approaches and attitudes regarding cleaning of furniture objects. However, there are very good object preservation as well as aesthetic reasons for cleaning. Two examples from the Fellow's research exemplify the value and combination of approaches to cleaning.

Furniture conservator and co-owner of Atelier Kopal, Marine Prevet, worked closely with the Fellow carefully cleaning a mid-20th century French cabinet in Rennes taking their time to share their own research and expertise on the subject.

On this project, it was determined important to preserve the original nitrocellulose finish on the cabinet. The treatment aim was to remove dirt, dust, grime, and other detritus from the surface of the coating without damaging it. The decision was made to attempt aqueous cleaning techniques. However, Marine explained that if the PH or conductivity of the solution was not attuned to the nature of the degraded coating, there was severe risk that the cleaning process could cause more damage. These parameters were tested on the surface, and the solution was adjusted using PH buffers to suit. Cleaning was then carefully done by hand.

Marine Prevet also shared other cleaning techniques with the Fellow, including the creating of Agar solvent and PH adjusted gels for use on brass cleaning as well as other surfaces.



Figure 5. Marine Prevet applying agar gel sample to interior surface of 20th century cabinet in order to test surface ph and conductivity.



Figure 6. Measuring PH of the sample



Figure 7. Degradation of timber found beneath piles of debris and detritus in the Portuguese Synagogue.

In these instances the cleaning was done for largely aesthetic reasons, however Marine did explain the importance of removing dust in the prevention of the development of moulds on the surface. Dust on a surface creates a microclimate of humidity and stops wind that would deter mould growth. Removal of dust can be essential to combating mould growth on objects.

In a similar vein, while visiting with Bruijs en Streep in The Netherlands, the Fellow participated in a day's work at the Portuguese Synagogue of Amsterdam where essential cleaning work was being done in the floor beneath the Torah Ark. The building which had been constructed in the late 17th century, had a raised timber floor supporting the Ark. The area beneath the floor had not been accessed since the 18th century and had collected on its surfaces centuries of dust and debris. The conservation team ventured beneath the floor boards to clean and remove the dust and debris for two essential reasons.

Firstly, the team wanted to inspect the level of potential insect damage or degradation to the timber. Removing surface debris was essential to observing signs of woodworm or other damage. Secondly, near to where the timber flooring made contact with the brickwork walls, large piles of mortar and chalky debris had formed. These piles of debris had themselves also created humid microclimates, and the wood directly beneath these piles had suffered severe dry rot.



Figure 8. Mechanically removing debris and detritus

Cleaning was done by mechanical means such as brushing and vacuuming, and was determined essential to the preservation of the site, even though this section of the building was never seen.

Through these and other experiences, the Fellow was introduced to a range of techniques and justifications for and against cleaning of objects. What is exemplified well in these two examples was the value of understanding the impact undesired materials on a surface can have to that surface, as well as the range of techniques available and their potential impact on the object.

VENEER, INLAY, MARQUETRY

Veneering, inlay, and marquetry are three common decorative surface techniques for furniture using timber and other materials. Fine historic objects, and cheaply mass-produced pieces are known to use veneer or even decorative marquetry techniques. Delamination and losses to these materials are very common problems faced by furniture restorers, repairers, and conservators.

The Fellow's research awarded an opportunity to practise making, conserving, and repairing these surfaces under four different professionals in four different countries. He was also able to meet and discuss techniques with marquetry specialists like Yannick Chastang, comparing these conversations with the practical experience gained.

Freddy Roman, owner of NE Furniture Conservation in Massachusetts is a traditionally trained period furniture maker and restorer. He has previously specialized in veneer, marquetry, and inlay works, both making and restoring using traditional techniques.

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Figure 9. Freddy Roman demonstrating hammer veneering of mahogany veneer.



Figure 10. Empire table base with quartered mahogany crotch veneer after being applied with traditional hammer veneering technique.

During the Fellow's time with Freddy, they were able to discuss veneer materials, and the history of marquetry, decorative banding, and inlay in American furniture. Freddy demonstrated research he had done into how decorative bandings were made, and demonstrated the traditional tools and techniques for inlaying timber stringing and other designs in furniture.

While visiting NE Furniture Conservation, the Fellow was engaged for two weeks on an empire game table, with a veneered mahogany base. Much of the veneer needed to be readhered, and Freddy had removed the damaged mahogany from the top of the base, ready to be reveneered

in a quartered pattern. Freddy walked the Fellow through the traditional process of hammer veneering a quarter pattern design using protein-based animal hide glue, as well as the repair of the remaining veneer. The workshop host was very careful to explain the timber selection, down to the species and its origin, as well as grain pattern, to remain consistent with the design and aesthetic of the original piece.



Figure 11. Nelly Koenig in-painting maple patches on ebony veneered art deco cabinet.

While visiting Nelly Koenig, co-owner of Atelier Kopal in France, the Fellow assisted in the loss replacement of macassar ebony on a French Art Deco cabinet. Due to the nature of the figure and lines of the remaining Ebony Veneer, the conservator had opted to use a pale timber with a similar close-pored surface (maple), which would then be in-painted afterwards to match the grain and colour of the original work. Minimal original material was removed in this instance, and each patch was shaped to fit the existing loss.

While the two professionals opted for different approaches in terms of matching the original material, both made their decision with an understanding of the original material, the techniques involved, and their available options.

While visiting with Philip Burrows in Guernsey, the Fellow was tasked with the creation of a missing component of a 19th century Davenport desk with simple decorative marquetry. Philip provided the Fellow with tools and materials necessary to replicate the existing marquetry designs on the object. The Fellow spent several days practising hand cutting the design with a coping saw in the traditional English manner until a satisfactory replica was produced. In this instance, the workshop opted for traditional techniques and materials to create a sympathetic replica of the lost component.



Figure 12. Cutting the marquetry for the replacement lid using traditional techniques.



Figure 13. Replacement of lost lid complete with walnut burl veneer, maple marquetry and boxwood stringing. Replacement lid was made by the Fellow during his stay with Philip Burrows.

Lastly, while visiting with Addison Conservation in Vienna, the Fellow was tasked for 4 weeks with the restoration and conservation of a small chest of drawers of Turkish or Syrian make, ornately decorated with mother of pearl and tortoise shell marquetry. The Fellow engaged in an intensive process of stabilizing and leveling the loose and deformed marquetry, as well as replacing lost mother of pearl elements. Over the course of his time, the Fellow replaced over three hundred lost or detached components, improving each day with the task as the treatment progressed.



Figure 14. Detail of damaged mother of pearl and tortoise shell marquetry on 19th century cabinet prior to treatment.



Figure 15. 18th century cabinet with mother of pearl and tortoise shell marquetry after treatment.

A NOTE ON LOSS REPLACEMENT

IN MANY CASES, THE CONSERVATORS/RESTORERS PRIORITISED REPLACING LOST ELEMENTS TO RETURN A READABILITY AND INTEGRITY OF THE ORIGINAL DESIGN AND CONSTRUCTION. IN SOME CASES, MATERIALS MATCHING AND SYMPATHETIC TO THE ORIGINAL WERE CHOSEN, AND IN SOME CASES THE CONSERVATOR/RESTORER ELECTED TO USE MATERIALS INCONSISTENT WITH THE ORIGINAL. FACTORS OF AVAILABILITY, ETHICS, OR SUSTAINABILITY WERE CONSIDERED IN THESE DECISIONS. IN EACH CASE, THE CONSERVATOR WEIGHED THEIR CHOICES AND MADE THEIR DECISION CAREFULLY TO SUIT THE PROJECT, USING AN UNDERSTANDING OF HISTORY, TECHNIQUE, AND MATERIAL.

COATINGS AND FINISHES

Approaches to coatings and furniture finishes amongst workshops and organisations visited varied widely. In the case of the small restoration workshop of Shah Avrahami in Tel Aviv, he argued that the idea of preserving a surface coating or regarding any surface patination as having value were false ideals that promoted poor work. In his practice he strips coatings off of all pieces, abrades the surface, and refinishes nearly every piece. As mentioned previously, Marine Prevet, furniture conservator with Atelier Kopal, carefully modified the PH of her cleaning solution so that it would have as minimal as possible an impact of the top surface of the original nitrocellulose finish on the piece, working under the ethos that a coating is as much a part of the object as any other component, and requires great care not to lose or damage it.

Over the course of his research, the Fellow engaged in hands on practice in a range of finishing and coating conservation techniques, including french polishing, lacquer and conversion varnish spraying, waxing, brushing finishes, padding varnish, painting, nitrocellulose regeneration with solvents, reworking french polished surfaces without stripping, and reviving and sealing degrading surfaces with synthetic polymers.

Practising and observing different materials and application techniques – experiencing firsthand this wide range of approaches – helps the researcher broaden their own range of options in how to approach a piece. In addition to this, as it can often be very difficult to look at a surface and know what kind of finish, combination of finishes, or restoration technique had been applied in the past, this approach helps build a tacit and theoretical understanding of what is being done around the world and as such what could have been done to pieces when they reach the restorer's hands in Australia.

In The United States, more than any other country visited, it was very common to use nitrocellulose-based products for either reviving or refinishing furniture. The American company, Mohawk Industries, produces a number of restoration products which were common in several of the workshops visited, but unseen in any other country. Phillip Kerrigan of Kerrigan Restorations demonstrated to the Fellow the use of some of the retouching and revitalising products available, which allowed colour and gloss manipulation on top of an existing coating without removing it.

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The Fellow also spent a week in Maine with second generation furniture restorer and refinisher Nate Spaulding of Spaulding Furniture Restorations. Nate grew up in his father's refinishing workshop where they regularly engaged in the stripping of coatings from furniture and refinishing. Two main stripping techniques were described to the Fellow but not demonstrated. The first was a dipping process popular in the 80's and 90's, where a piece of furniture was dipped into vats of chemicals such as methylene chloride, sodium hydroxide, and oxalic acid. The second process, involved a pour over system of methylene chloride based stripper running from a tap above a large trough where a piece of furniture could be placed.

This large-scale refinishing of furniture pieces is an affordable way to renew the aesthetic and surface appearance of an object, often designed for resale.

Nate is also a specialist in spray finishing using nitrocellulose lacquers and conversion varnishes. While visiting with Nate, the Fellow helped in the spraying of wooden surfaces on the interior of a newly renovated home, as well as kitchen cabinets being built and prepared for installation. He was introduced to the equipment, process, and safety measures necessary to achieve a good result, and was familiarised with the problems that can occur in the process.

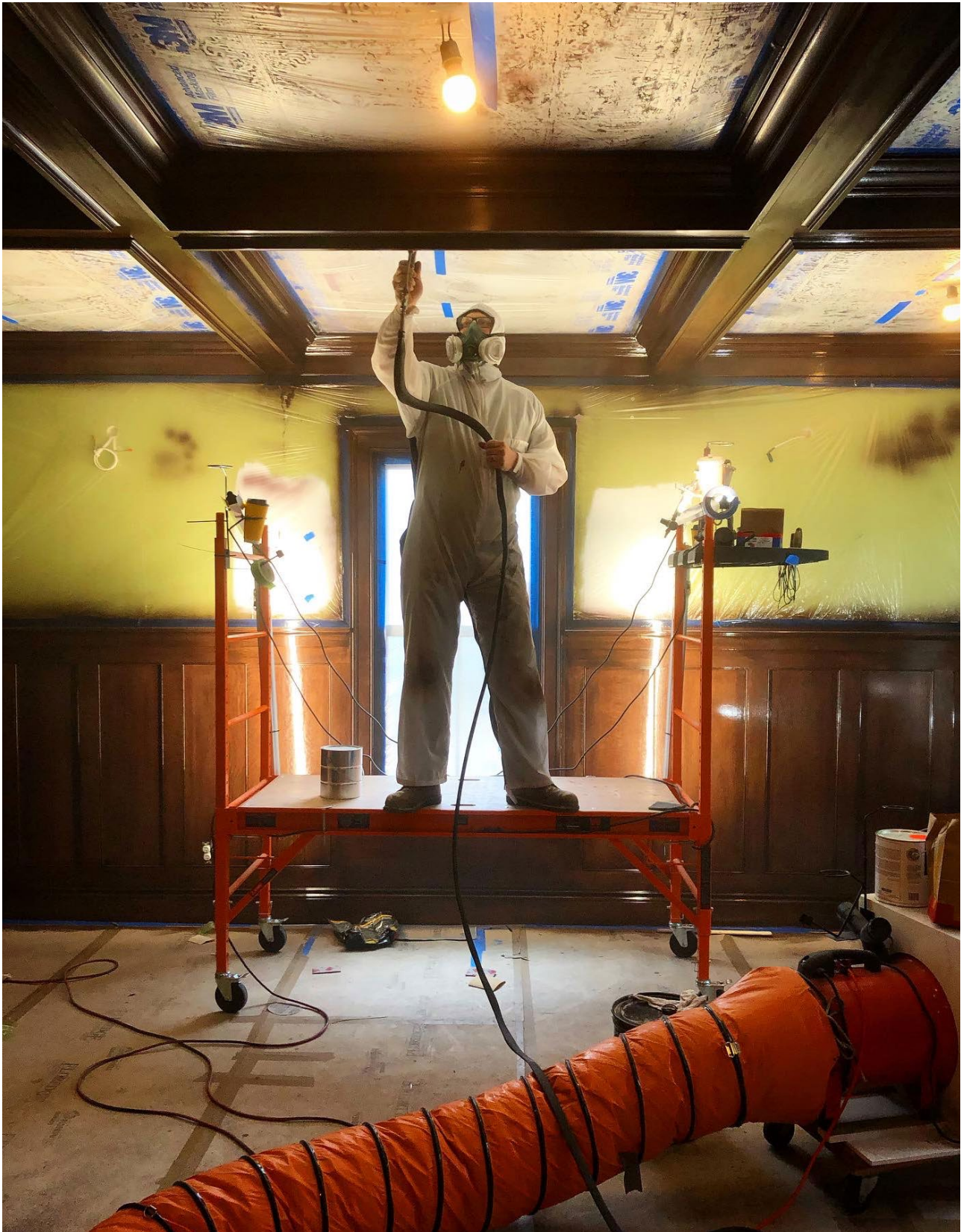


Figure 16. Nate Spaulding spraying wooden surface on the interior of a recently renovated home.

While visiting with Long French Polishing in Warminster, England, the Fellow similarly engaged in a week of finishing. In this case, the owner, Alistair Long, also a second-generation craftsman, utilised the traditional technique of French polishing with shellac and alcohol. Working on the case of a sapele veneered piano, Alistair walked the Fellow through the complete process he used to French polish a piano, starting with a linseed oil base, discussing colour, and building to a very refined and curated result.

These two finishing approaches were very different in time investment, material, safety concerns, quality, and durability, but each required their own set of experience, knowledge, and practice. Upon working both



Figure 17. Alistair Long French polishing lid of a piano.

of them, the Fellow was also able to improve his capacity to identify the differences through visual keys and distinctions.

While working with both Nelly Koenig and Marine Prevet of Atelier Kopal in France, the Fellow was introduced to a coating regeneration process developed and published by German furniture conservator, Heinrich Piening.

Faced with a pale and delamination nitrocellulose finish on the 20th Century sideboard, for example, Marine Prevet decided not to remove the original coating. She applied a solvent mixture of ethyl acetate and 1-methoxy-2-propanol to the surface, allowing the solvents to soften and re-adhere the existing material to the surface. The



Figure 18. Marine Prevet regenerating a Nitrocellulose based finish with solvent mixture.

result was a richer colour and a greater saturation of the wood, potentially reversing much of the degradation.

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A traditional technique of re-adhering a delaminated or pale shellac finish called 'Flashing' was trialled with Phillip Kerrigan in Baltimore, whereby alcohol is quickly wiped on a surface and then lit on fire, creating a very short rapid incineration of the alcohol and a re-adhesion of the shellac to the surface due to heat.

Out of all of the aspects of furniture restoration and conservation, there was no more contested or varied aspect than treatment and application of coatings and finishes. However, the Fellow found great value and understanding in experiencing and observing this variety of approaches firsthand.

UPHOLSTERY, LEATHER, TEXTILES

Upholstery and Textile work is in some cases seen as part of the furniture conservator/restorer's repertoire, and in other cases treated as a separate profession with its own skills and suite of required knowledge. Similar to coatings and other aspects of the profession, handling of upholstery and leather on furniture objects ranges from complete replacement to careful preservation.

While visiting Bainbridge Conservation in London, the Fellow was engaged in work on two different sets of historic chairs with different requirements for handling of their upholstery.

One was a collection of leather upholstered 19th C William Burgess designed chairs from the Maison Dieu in Dover. The leather still on the chairs was the original tanned Moroccan lamb skin used in their making, and representing the financial investment and priority value of these chairs (given the quality and relative rareness of the material). The material had torn and worn in several areas, and work was undertaken to patch the tears using synthetic and reversible materials including a random spun polyester material and a mixture of ethyl vinyl acetate adhesive. Both



Figure 19. Comparing results of nitrocellulose regeneration process by Marine Prevet. The farthest panel is pre-treatment, and the nearest panel is post treatment.

materials were chosen for their compatibility with the original leather and their relative stability. The patching of this original leather on a selection of chairs was done in order to preserve the original material, but return some of the stability and readability of the design.



Figure 20. Toned random spun polyester material ready to be adhered to original leather.



Figure 21. Damaged leather seat after treatment. Repairs toned but not inpainted.

The second set of chairs, were 18th C carved and upholstered mahogany chairs. The original upholstery of these chairs had been long lost due to previous reupholstery. Tristram Bainbridge and his client had engaged a separate textiles conservator to examine the chair, in order to help researchers understand what materials and colours the original upholstery would have been. The conservator carefully inspected each of the original upholstery tack holes, retrieving any strands or evidence of original thread, and using magnification analysed the materials.

Once an original colour scheme and material would be determined, the chairs were being measured for a false upholstery fitting to be installed to replicate the look of the upholstery without putting stress or further damage to the original frame.

The Fellow had seen false upholstery caps like this (originally nicknamed ‘Copper tops’) when visiting Colonial Williamsburg earlier in the year, where upholstery conservator Leroy Graves developed the technique originally using copper to create the shape of an upholstered seat, and then applying the fabric directly to the copper.



Figure 22. Chair with ‘coppertop’ upholstery piece for display in the Colonial Williamsburg conservation laboratory.



Figure 23. Underside of ‘coppertop’ upholstery display.

These two approaches, for historic and archaeological reasons prioritised the original material, and presentation of that material in a readable and respectable manner. Neither set of chairs was intended to return to a state of use, and would only be displayed.

While visiting with Kerrigan Restoration in Baltimore, Phillip Kerrigan took the Fellow on a day visit to upholsterer Samantha Kuczynski, who was working on reupholstering a late 19th century lounge suite that Phillip had done some of the structural repairs on. Phillip acknowledges in his profession that upholstery is not an aspect of his skill set, and so he prefers to engage Samantha for jobs that require it.

As the lounge suite was intended to return to the home of a private client for regular use, a different approach was chosen. Still wanting to reference and show respect for the original upholstery of the chair, Samantha used 19th century upholstery techniques and materials, in order to preserve the

craft, authenticity, and aesthetic of the original pieces. The piece had been reupholstered many times, and remnants of what could have been the original upholstery were discovered. This material was matched as best as possible with new fabric, and a sample book of all layers of upholstery history were carefully stored within the lounge, as well as provided to the client. This way, unlike with what had previously occurred on the 18th C chairs mentioned earlier, examples of the original material, colours, and pattern, would be available for future conservators and researchers.



Figure 24. 19th century chairs from lounge suite worked on by Samantha Kuczynski with layers of fabric removed on the bench beside them.

GILDING, PAINTING, EAST ASIAN LACQUER, AND OTHER DECORATIVE SURFACES

The various ways that wood and furniture can be decorated are well and truly beyond the scope of this document. Gilding, painting, carving, dyeing, Asian lacquer decoration, and the application of other ornamentation are all common, and as such potentially likely for a professional to face. It is in the call of each practice and professional to determine and understand their own capacity when working with these objects in order to determine whether they will treat the object themselves, or perhaps seek specialised assistance.

Within each of these decorative realms, it should be noted, like any other aspect of work mentioned thus far in the report, a variety of approaches is found. If doing work oneself, or engaging another professional, it should be known what options are available and what approach will be used.

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During the Fellow's time in Malta, he observed three different attitudes to the repair/conservation of water gilt objects. All three organisations worked across the scope of heritage and museum objects in Malta. In one case, inpainting of lost gold was done with stable mica powders in acrylic binders. In another, oil-size was used to adhere the gold in loss replacement, and the third workshop stayed true to the original water gilding. In the case of the first two, the argument was made of an importance to differentiate original material from new material. This is an ethics approach applied regularly to masterpieces of painting in Italy and other conservation fields. The argument for traditional water gilding included a respect to the original craft, a better longevity due to sympathetic nature of the repair with the surrounding area, and a more accurate appearance.

While visiting the Academy of Fine Arts in Vienna, gilding conservators were trained using an egg based adhesive when applying water gilding. This approach was not observed in any of the other countries visited.

Yuri Yanchyshyn, owner of Period Furniture Conservation in Jersey City, USA uses parchment size instead of rabbit skin glue in the preparation layers of water gilding repair. He was the only person the Fellow met who uses this approach.

Difference in approach to decorative surfaces is not simply a matter of individual practices doing it differently than others. Culture, experience, and circumstance lead to different decisions being made. In the case of East Asian lacquer decoration the Fellow spoke with lacquer conservators who had all discussed using different approaches on different objects depending on the circumstance.

Silvia Miklin, a retired lacquer conservator in Vienna Austria, studied for two years with a master lacquer artist in Japan in the 1980s. Over the course of her career, she used



Figure 25. Water gilding on carved decoration inside St John's Co-Cathedral in Valetta

a range of different approaches and materials to conserve lacquer objects, learning from each experience and adapting to different circumstances. In Japan, a traditional technique of lacquer conservation, *urushi-gatame*, is regularly used to preserve heritage objects. This treatment uses a filtered *urushi* lacquer with a selection of solvents to strengthen a degrading lacquer surface by filling microcracks in the original surface with new lacquer material. This process is not reversible, and it is impossible to distinguish new material from original material, and as such is debated ethically in a lot of European countries. Silvia and other lacquer conservators spoken with have elected to use this practice on some pieces. In other cases, synthetic materials like aldehyde resin Larapol A81 or acrylic resin Paraloid B72 are chosen to protect the surface and improve saturation and gloss. Yet in other cases, no surface work beyond cleaning is done, so as not to apply any new material to the original. In some workshops, each of these options is considered ethically acceptable, depending on the circumstances of the object and situation.



Figure 26. Projects Silvia Miklin completed as part of her lacquer training in Japan.



Figure 27. Silvia Miklin applying red urushi to kintsugi ceramic repair. Retired from conservation, Silvia still practises as a lacquer and kintsugi ceramic artist.

Each decorative technique treated during the Fellow's research proved to have a range of treatment options, and no consensus was found on a single best practice technique or material for a particular decoration or object.

Two important notes result from these findings. One is the knowledge that objects previously treated in different countries are potentially going to have different materials and treatment histories (such as gilt objects in Vienna being more likely to have egg-based adhesives). This information can help a professional understand how to best reverse or retreat an object previously worked on or coming from one of these places. The second note is in the value of learning and continuing to learn the full range of treatments available, so that one can make the best decision in any given circumstance.

A NOTE ON ETHICS AND NORMS

AS SEEN IN ALL OF THESE SKILLS SECTIONS THERE ARE DIFFERING ETHICS AND NORMS BEING PRACTISED IN THE FIELD BOTH AT NATIONAL AND INTERNATIONAL LEVELS. A DISTINCT ADVANTAGE THE JOURNEYMAN APPROACH APPEARED TO HAVE OVER APPRENTICESHIPS OR INDIVIDUAL TRAINING FACILITIES WAS THE ENGAGEMENT WITH THIS VARIETY, AND THE REAL-WORLD EXPERIENCE OF HOW DIFFERENT PRACTITIONERS APPROACH AND TACKLE ETHICAL CHALLENGES.

CONCLUSION ON PRACTICAL SKILLS AND EXPERTISE

The Fellow's research trip found him working on over 40 projects and observing even more. His conversations with over 50 professionals at all levels of the field provided more context, knowledge, and experience than can be conveyed here. Many interviews, objects, lessons, and activities have been omitted here for the sake of brevity, but it is worth noting that this breadth of experience itself is an essential aspect of the research project, and a key finding of the project. In testing the viability and value of this approach, the Fellow found overwhelmingly that a journeyman style project yielded an incomparable level and range of experiences and opportunities.

COMPARING EDUCATION

The diversity criteria and selection of workshop hosts ensured that every workshop host the Fellow worked with had a different training background. Even while the two co-owners of Atelier Kopal had graduated as masters from L'Institute National du Patrimoine, Marine Prevet had previously attended cabinetmaking studies, whereby Nelly had studied to be an archivist. Every workshop drew different attitudes, skills, and resources from their educations, and those educations impacted their practice appropriately.

An important aspect of this engagement with practitioners was in revealing where education opportunities were lacking. Samantha, Kuczynski, a private upholsterer in Baltimore, informed the Fellow that no formal upholstery courses existed in the United States. She had tried to work with and learn from fellow professionals, as well as engaged in online courses. But learned a lot of what she did from internet resources, texts, and practise. In Malta, the formal conservation training program had stopped running some years prior, and like in Australia, the majority of those practising trained in other countries, largely England and Italy. Two book and paper conservators interviewed had started as volunteers before being sent by the National Archives, to acquire their masters training at West Dean college.

As part of his supplementary visits, the fellow was also able to tour and meet with staff at several craft and restoration institutions, including North Bennett Street School in Boston, West Dean College in Southern England, The Academy of Fine Arts (Conservation Dept) in Vienna, and the University of Amsterdam (Conservation Dept) in Amsterdam. The Fellow also spent a week sitting in on classes and working with Kendall College, a cities and guilds accredited school, in their timber framing and carpentry courses attended by 17-19 year old school students and early apprentices in these trades.

From this range of opportunities, visits, tours, and interviews, the Fellow was able to garner an international perspective on training opportunities (and lack of opportunities) across a range of aspects of the furniture and conservation industries.



Figure 28. Students at Kendal College working on basic joinery

REGULATION AND POLICY REGARDING HERITAGE CONSERVATION AND REPAIR

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While the Fellow had not intended his research project with this in mind, it became clear that different countries handle the regulation of restoration/conservation work in different ways. In the United States and Australia, there is not regulation to speak of restricting someone from working on a heritage or state object. You need no degree or training in Australia to establish a repair or restoration business or to work on state or heritage pieces.

In France, Malta, Germany, and Austria, the Fellow discovered different approaches and policies in regards to regulating restoration and repair. In France, only masters from select national schools were approved for work on state objects, omitting graduates from notable craft school Ecole Boulle. In Malta, they have a national law restricting work on heritage pieces to those with European Qualification Framework Level 7, which equates to a Masters in conservation. This is particularly distinct to note, as there is no EQF Level 7 training in Malta at present.



Figure 29. Sepp Eisenreigler sitting on some of his companies refurbished washing machines for sale at RUSZ.



Figure 30. Sign outside a repair shop in Vienna advertising that they are an official partner involved in the Reparatur Bonus, a national subsidy for repair costs of common objects.

In Vienna, the Fellow didn't engage with regulations regarding heritage pieces, but did meet with CEO of RUSZ, who has been actively engaged in repair for environmental reasons for most of his life. He was involved in establishing a non-governmental body referred to as the Repair Network, for quality control of repair companies. Research done as part of a television program in the 90s revealed that a large number of washing machine and electronic repair companies and professionals were more likely to sell a new product than repair an old one. The repair network was established to ensure ethical practice as well as quality practice. This network was then a part of the developed repair subsidy the Austrian government gives out to help cover the costs of repairs for common objects.

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6. Personal, Professional and Sectoral Impact

PERSONAL IMPACT

The project, in its large scope and long timeframe had a significant personal impact on the Fellow. Simply by being able to travel to so many places, meet so many people, and see so many ways to live, the Fellow has been greatly inspired in all things he did.

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THE SCOPE OF TRAVEL

Having travelled across America, Europe, and the Mediterranean, spending time working on and visiting cultural materials left an indescribable mark on the Fellow. In a way, he worked back through time in regards to western furniture and built objects. He travelled through his home country of The United States, then followed back to Europe including the Netherlands and The UK. He travelled to the home of the Habsburgs in Austria, then down to Malta where the oldest European structure exists, the Hypogeum. From there he finished his journey in Israel, where roman structures are built on top of older historic foundations.

The intuitive understanding of history and culture gained through this travel has left the Fellow with a better understanding of his place in history.

WAYS TO LIVE

The time frames allowed in this project, staying with different professionals for weeks at a time, gave the Fellow a window into how different colleagues structure their days and their lives.

Individuals like Remko Streep at Bruijs en Streep, ensure that they manage a healthy life of exercise, hobbies, and family outside of work. The staff here would sit down together for lunch every day and take the time to talk and relax. Remko would show the group videos from his time outside of work windsurfing or hiking during these lunches.

While working with Marine from Atelier Kopal in Rennes, the Fellow was invited out to a weekend of sailing with Marine and her husband on the French coast in Brittany. Marine was in the process of preparing to take a sabbatical from work to sail with her husband for a year while visiting different environmental scientists and reporting back to school children about their exploits.

The professionals visited were all more than just their professions, and the Fellow was able to see not only how he wanted to work based on these experiences, but how he wanted to live, and he has strived to bring this knowledge back to his life in Australia.

A PERSONAL NETWORK

The people he met and worked with have also in many cases become close friends since the conclusion of this trip. The Fellow can reach out to this network for both professional reasons (to ask for advice, or recipes, or recommendations on tools and equipment), but also for personal reasons.

Additionally, there were a number of old friends, family, and other important relations that the Fellow was able to visit while on his journey.

PROFESSIONAL IMPACT

Given the large-scale nature of this fellowship, and the sheer number of opportunities to practise skills and learn new techniques, there have been very few aspects of the Fellow's professional experience since returning that have not been changed in some way.

He has been able to start his own private practice, which has already seen success, and in that practice, he is working more confidently, quickly, and accurately than ever before. He has been able to introduce new ideas and techniques to his colleagues which have increased productivity as well as the capacity of services offered in Australia.

CRAFTED CONSERVATION

The Fellow has used his experience and the legitimacy it provides to establish a private practice in conservation and restoration of furniture and wooden objects where he operates as a private consultant, practitioner, and conservation specialist. His company, Crafted Conservation, is already engaged multiple days a week with two professional clients in Sydney, Australia, Studio Conservation and Renaissance Restoration. His international experience has given him a unique position within the field to provide input to these professional bodies about international practices and approaches.



Figure 31. Games table recently re-veneered with walnut burl on the surface using techniques learned in Boston.

Special projects have included a large collection of historic and significant Tasmanian crafted objects from the Queen Victoria Museum and Art Gallery in Launceston, Conservation and recreation of architectural elements at Duntroon in Canberra, and a large range of historic furniture objects from around the world.

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The Fellow intends to use this experience to take on future international contract work, continuing to do short trips overseas, working with conservators and institutions around the world, and returning to Australia where he will continue to share his experience and develop his own practice. Several of the workshops the Fellow visited have already expressed an interest in future work.

PRACTICAL CONFIDENCE

The Fellow has noticed a distinct increase in his personal confidence as a furniture restorer/conservator. He moves more quickly through his tasks with less hesitation, and his choices and actions are led by more informed decisions which often involve reflecting on a range of workshops visited during this fellowship.

The observation skills used in carving replacement for a lost 18th century chair with Bainbridge Conservation in London has already been utilised in replacing a lost carving on a decorative mirror frame with Renaissance Conservation in Sydney.

The veneering techniques learned from Freddy Roman in Boston, have been used on a decorative 19th century games table here in Australia.

The experience cleaning objects in France and managing the structural elements of an oak door in the Netherlands have both been implemented in the restoration of an American Cutler Desk that was damaged in the 2022 floods.

This has made the Fellow a highly desirable subcontractor, who has been key to increasing the success of the businesses which employ him.



Figure 32. Loss replacements carved for decorative gilt mirror using experience gained in London from Bainbridge Conservation

NEW MATERIALS AND TECHNIQUES

The Fellow has returned to Australia with the knowledge of a range of techniques and materials used internationally which have not been as common in Sydney.

On his first day working with Studio Conservation, they sat down with company manager, Oliver Hull, to create a list of potential materials to acquire for future treatments. This included buying hide glues at different gram strengths as is more commonly done and available in the United States, the acquisition of different gelling agents, solvents, and bulking agents from their time in France, and the potential inclusion of a glue injection device used extensively on the small decorative cabinet in Austria. The experience of ways workshops marketed themselves or arranged themselves is already being implemented. In setting up the new Studio Conservation workshop in Hornsby, a number of lessons learned from Bainbridge Conservation in London, F. Carey Howlett and Associates in Virginia, and Bruis en Streep in Haarlem have all been included in the conversation, and developing business plan.

SECTORAL IMPACT

The journeyman fellowship has shown to have an impact on the conservation and restoration sector both nationally and internationally. The Fellow has been engaged to speak about his experience at a number of conferences and professional events. They has also brought his experience visiting repair, waste management, and social engagement projects to local waste reduction and repair organisations in Sydney.

SPEAKING TO THE SECTOR

The Fellow was asked to be keynote speaker at an international student conference based online, called CONNEX, which engages with conservation students of all kinds from a number of universities across Europe. He also spoke at the American Institute of Conservation's Annual Meeting in May 2023 to the national Wooden Artifacts Group.

Both of these talks outlined the scope of the fellowship, the support he received, and the benefits they received from this project, and both talks were received very well. Both talks also highlight the potential for others to engage in similar projects of their own.

The Fellow hopes to speak about his experience and his findings at the Australian Institute of the Conservation of Culture Materials later in the year.

REPAIR AND THE CIRCULAR ECONOMY

The Fellow has also become a board member for the environmental charity Bower Reuse and

Repair Centres, where he is using his experience to help guide strategic governance strategies for the development of community repair programs. As member of the Strategic Plan and Waste subcommittees, the Fellow will be integrating and drawing from experiences such as those meeting with Guernsey Recycling and Reuse Officer Tina Norman-Ross as well as Circular Economy champion and Company Manager of RUSZ, Sepp Eisenreigler.

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The connections made continue to be valuable, and the Fellow is continuing to discuss with these individuals approaches and strategies for improving circular economy practices, prevent waste going to landfill, and support repair and reuse infrastructure in Australia and internationally.

The Fellow has already been engaged to speak at the 2023 AIC Annual Meeting in regards to his journeyman trip, and also to the potential impact conservators could have on climate action and the circular economy.

CRAFT EDUCATION AND TRAINING

Since returning, the Fellow has met with management of heritage craft organisations, The Lost Trades Fair and The Centre for Rare Trades in Victoria to discuss the future of craft education and training. They are already in the process of proposing and developing a long form Furniture Restoration practical training course. This course would incorporate heritage crafts and modern analytic and scientific approaches to furniture and wooden object conservation in practical application. It would be the very first of its kind in Australia, and would serve as a baseline for restorers and conservators of all kinds to determine how they would want to continue their education or training, and what direction they want to go with their work.

The Fellow is also in talks with a local secondhand timber supplier and Sydney community centre, Among The Trees, in regards to developing furniture repair programs similar to those attended in Tel Aviv.

7. Recommendations and Considerations

Recommendations and considerations based on the research findings can be divided into two subcategories:

- Improved education and training opportunities for fine restoration and heritage conservation
- Pathways and infrastructure for furniture repair and restoration programs necessary to the future progression towards circular economy goals and sustainable material use.

The first set of recommendations addresses a concern for the lack of skill and material intelligence focused training opportunities for fine restoration and conservation of furniture objects. It includes the development of education programs, as well as a guild or funding program to support future journeyman style research projects.

The Second set of recommendations addresses the lack of repair infrastructure and training in Australia for furniture and household goods. The Fellow sees this infrastructure as both essential and overlooked in conversations regarding the development of sustainable and circular economy focused policies.

IMPROVED EDUCATION AND TRAINING OPPORTUNITIES FOR FINE RESTORATION AND HERITAGE CONSERVATION

PRACTICAL CRAFT AND CONSERVATION TRAINING

It is the recommendation of this Fellow that the creation of long form advanced professional development program be formed introducing conservators to crafts skills through intensive hands-on training, as well as historical trends, material intelligence, ethical considerations, modern techniques, and analytical processes.

While it would be ideal to see this kind of training for all object types, the Fellow's furniture specific research highlighted a distinct value in the specifically craft skill/knowledge, material intelligence both tacit and theoretical, furniture specific techniques and constructions, and traditional decorative techniques in the development and follow-through of treatments.

The course program should be no shorter than 3 months in length and bring in specialists of different aspects of the profession to work with participants hands on for at least a week or more. This training would not be a certification in these skills, and would not be intended to see the participants come out of the program as masters in any particular aspect, but give them a foundational understanding and practice in a variety of techniques used in the creation of furniture objects.

This hands-on practice should be supplemented with history, science, and ethics lessons.

This program would not need to be intended to qualify the participant as a conservator or restorer. It would serve more as either an introduction to the field, or as professional development for those already qualified.

Practical lessons recommended for inclusion include:

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- Timber joinery and furniture making basics
- Furniture disassembly
- Turning (using a lathe)
- Hand tool maintenance and use
- Power tool maintenance and use
- Laboratory equipment maintenance and use
- Carving
- Gilding
- Gilding restoration/conservation
- Marquetry and Veneer
- Upholstery
- Materials analysis
- Cleaning techniques
- Inpainting and Colour
- Basic Furniture Finishing
- French Polishing
- Modern furniture finishing
- Refinishing and coating regeneration/conservation
- Wood graining (painting wood grain onto surfaces)

Supplementary lessons recommended for inclusion include:

- Organic and inorganic chemistry
- Identification and material intelligence of timbers
- Timber trade history
- Furniture history
- Tools and techniques history
- Conservation/Restoration ethics
- Industry standards
- New materials review

INTRODUCTION OF A CONSERVATION PROJECT MANAGEMENT ACCREDITATION

Given the specialist nature of the work that needs to be done to maintain our heritage, and the broad range of objects needing care, we need a specialist workforce, with real experts in the specific tasks required. Currently, institutions are moving towards a trend of employing all round “Objects Conservators” to handle a majority of these objects. While knowledgeable about the role of conservation and the broad strokes of the profession, it is impossible for these jacks of all trades to be experts in anything.

As such, it would be extremely beneficial to instead train people in these positions as conservation project managers, individuals who understand conservation and heritage, but rather than treating

the objects themselves, build a database of capable specialists for whom they can call on and trust to do the appropriate work with under understanding oversight.

When meeting with Heinrich Piening at the Bavarian Palace Administration, the Fellow was introduced to the idea of how this could look. The Bavarian Palace Administration overlooks the collections of all castles and royal estates across all of Bavaria. The conservation lab in Munich cannot treat all objects within this collection. As such, they work on only objects of a certain value, but maintain a regularly reviewed list of specialists in Germany who would be able to do certain tasks. From upholstery, to gilding, to restoration, to conservation, to cleaning, private practitioners are assessed for their capacity to complete these associated tasks, and a trusted list is managed by the Administration.

It would be invaluable for the institutions and local governments of Australia to have access to, or to develop similar lists here. It would both ensure that the best work is being done on these objects, and help support a workforce of specialists in these fields.

The conservation project manager would be essential to development.

CONSERVATION/RESTORATION JOURNEYMAN GUILD

In order to continue integrating diverse international skills and approaches, organisations like the International Specialised Skills Institute and programs such as the George Alexander Fellowship are key in supporting the acquisition and transfer through first-hand experience and research.

With what is seen as the success of his own research trip, the Fellow strongly recommends the creation of a dedicated fund and organisational body to support and promote future emerging professionals in all fields of conservation and restoration. As seen, the Journeyman Approach provides the emerging professional with a range of contacts, experiences, techniques, and approaches that are otherwise unobtainable through local apprenticeship or education opportunities.

This supporting body would ideally aid in making connections with potential hosts, financial support of the individual during their trip, and provide a guarantee to potential hosts of the quality and appropriateness of the participant. The organisation could also help navigate challenging insurance, visa, and travel concerns that come along with such a venture.

It would be key that participant have some experience and training in their respective fields, and not need to start from the beginning in each workshop they visit.

This program would help keep our practitioners connected with developments in the outside world, and raise Australia's profile internationally.

REPAIR/RESTORATION INFRASTRUCTURE

PRACTICAL AND THEORETICAL PATHWAYS FOR REPAIR/RESTORATION

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The need is clear not just for training of conservators, but also furniture repairers and restorers. The introduction of certificates or other nationally recognised vocational qualifications for the repair and restoration of furniture would go a long way to help standardise and support the profession. At present, the nearest vocational options include cabinetmaking/furniture-making and furniture finishing. Neither of these programs cover the combination of finishing and construction techniques necessary to adequately handle the range of tasks in restoration, nor the specific challenges that face a repairer/restorer.

Additionally, object history and ethics should be included in this training to help the repairer be aware of and confident with their own level of skill, and the knowledge of which jobs and objects should be handled by colleagues with differing approaches, training, or experience.

CERTIFYING NETWORK OF REPAIRERS/RESTORERS/CRAFTSPEOPLE

At present there is no quality assurance program for furniture repair or restoration. Any individual can start a business as a furniture repairer/restorer, regardless of their skill, knowledge, or capacity. There is no review process for practitioners in these professions either to ensure they are maintaining a quality of work and staying relevant in their field.

The Fellow recommends the creation of a supervisory body akin to The Repair Network in Austria. This body would review repairers and restorer applicants for their skill, quality, and ethical approach against an established quality framework. Certified members would become listed on a searchable database with notes on their specialties, and be awarded with a paper certificate, digital emblem, and physical sign which can be displayed to represent their membership.

A complaint or review process would be required, where by unsatisfied customers or clients could contact the supervisory body with their concerns, and the body would have a duty to review the membership and certification of the repairer/restorer.

The creation of this body would not only help establish a standard of work, but also raise the profile of repair and restoration in Australia amongst the public. Individuals would be more confident having their objects repaired knowing that the practitioner had been quality assured.

This network would serve as a starting point for the growth of sound repair infrastructure in Australia.

GOVERNMENT SUPPORT AND SUBSIDY FOR REPAIR

In order to encourage and support the repair and restoration industry necessary for achieving circular economy goals and the reduction of waste and raw material consumption in Australia, the challenge of cost and market interest needs to be addressed. At present, it can be cheaper to buy a new mass-produced chair, than to engage a professional in the repair of a chair. This leads to both a challenge in obtaining quality for the repairer and the likelihood that objects will be repaired instead of discarded.

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It is the responsibility of state and federal governments to support and encourage repair focused work and businesses across Australia. This can be aided through the creation of repair specific grants/funding and the creation of a subsidy for repair offered to the customer.

Equipment, space, and insurance are large but necessary costs for the repairer/restorer. A number of grants support the costs of developing new products, but work needs to be done to support the maintenance and preservation of existing products. New grants and funding should be developed to support businesses or ventures seeking materials, space, training, or insurance to develop or continue quality repair programs.

Additionally, using the model recently developed in Austria as a basis, the government should provide a subsidy or rebate for those seeking to have their possessions repaired instead of replaced. In Austria, the government covers 50% of the cost of a repair (up to 200EU), which can make a big difference on small and simple repair jobs. In order to ensure that this subsidy is not being rorted, the subsidy should only be offered when repairs are done by organisations certified under the previously mentioned certifying quality control body. This body would also be responsible for ensuring that pricing by its members remained fair.

Through this combination of trade certification, quality control oversight, and financial support and development, the repair trades in Australia would have the opportunity to flourish, and we would see a necessary increase in objects being repaired rather than discarded.

8. Conclusion

With the known poor state of practical training in Australia around furniture restoration and conservation as well as traditional skills and repair across the board, there needs to be a change in the way we approach education, work, and the maintenance of our built world. Whilst furniture and wooden objects has been the focus of this particular fellowship, the implications for education and work around conservation and maintenance reach into other related fields as well.

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This Fellow used a traditional training technique (the German style trades journeyman) to supplement a lack of practical education available in Australia. This approach allowed him hands-on experience working on a wide range of objects, using a wide range of techniques and tools and providing his with an international perspective on his field.

Doing so has provided clarity on the kinds of support and training that could and should be made available in Australia. Whilst there needs to be more specific practical training in heritage restoration and conservation, this alone is not enough to put us in the best position. The introduction of Conservation Project Managers into the field, who can oversee the care of our heritage by engaging with the appropriate specialists in the field, will both ensure the best work and ensure a place of employment for these workers. To keep ensuring that these workers are kept up to date on the international practices, and that we stay connected to the broader picture, the Fellow also recommends a support network or guild allowing more Australians to be journeymen in their own right.

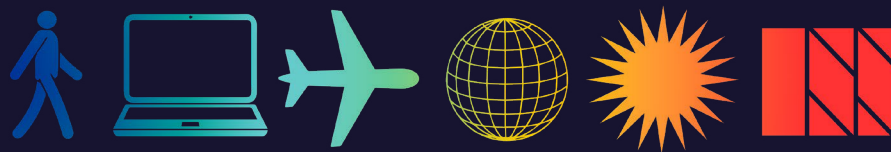
This trifecta of changes in Australia would put us in a place to support our craftspeople and heritage workers, ensure the best work is done, and keep our workforce up to date with international trends.

However, this fellowship revealed that it isn't entirely heritage objects that require maintenance and support structures to be installed. As Australia aims to reduce its carbon and environmental impact, it will be important to rely less on manufacturing and consumption of new objects, and instead maintain and repair the existing objects we have. The practical training above will be necessary to creating a workforce that can competently handle the task of ensuring our everyday objects last as long as possible, but more financial support and structural support will be required in this field to ensure its viability. When the repair of a chair costs more than a new chair, it is hard for many to justify doing the right thing. Governmental subsidy, and a supporting repair network, will both be required to bolster this urgently needed service.

On the whole, there is a dire need for Australia to improve its approach to maintaining its material culture on all levels, and this fellowship has revealed a number of improvements which can be made which this Fellow believes would transition our workforce and culture towards one which can do better work, be better supported, and encourage a more sustainable future.

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