

The conservation of heritage wallpaper

Lynn Campbell

August – Sept 2017



**Report for the Winston Churchill
Fellowship**

**Report on the Winston Churchill Fellowship on the research of
the conservation of heritage wallpaper**

13 August – 27 September 2017

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Introduction

The mission/whakakanga of the Winston Churchill Trust is ‘to assist all kinds of New Zealanders from all walks of life to travel overseas and bring back with them new insights and understanding that will enrich their community and, ultimately, New Zealand as a whole.’ The cultural history of New Zealand is a vital part of every Kiwi’s heritage and with the passing of time, has become more and more important for every citizen. Part of this can be seen in the myriad of historic buildings that house our social history. It is vital that these be retained and conserved for future generations. This does not only involve the building itself but the material that exists within, such as wallpaper and furniture. It is vital that there are experienced and qualified conservators in New Zealand to help save these treasures. The purpose/kaupapa of the Winston Churchill Fellowship is for New Zealanders to travel overseas to learn more about other people and cultures, and to investigate topics that will help increase the fellows’ contribution to the community. This fellowship enabled me to learn from experts in the UK who work specifically on heritage wallpaper how to use new research and techniques. Research into the history of the manufacture of the wallpapers that were transported to New Zealand with the early European settlers enabled me to be more aware of the processes used to make the wallpapers, such as types of paper and pigments used. This fellowship will benefit New Zealand by having a resident conservator who is up-to-date with all recent advances in the conservation of heritage wallpapers. This information can then be passed on to other conservators via workshops and papers at conferences, and to like-minded experts in similar and complimentary fields of work. This knowledge can then be utilised throughout New Zealand. There are only approximately 65 professional qualified conservators in the whole of New Zealand, only 12 of whom are paper conservators. Therefore, it is vital that we constantly upskill, so we can be the best we can and the whole of New Zealand benefits from our collective knowledge.

Importance of the research

At 4.43 am on Saturday 4 September 2010, the Canterbury region of New Zealand was shaken by a 7.1 magnitude earthquake. The epicentre was located 40 kilometres west of Christchurch and had a focal depth of 10km. It caused widespread damage which affected the whole of the South Island, and vibrations were felt as far away as Auckland in the North Island. No one died during this earthquake, but buildings were badly damaged, including many heritage buildings. On 26 December there was another big aftershock but again with no loss of life. On 22 February 2011 at 12.55pm there was a 6.3 magnitude earthquake centred near the Port of Lyttelton. It devastated central Christchurch and killed 185 people, most in the central city district in relatively modern buildings. The severity of this quake was caused by the fact that its focal depth was only 5.5km deep. It was the shallowness of the shake that caused the major widespread destruction.

Soils such as sand or reclaimed land caused much more displacement. Liquefaction was a huge issue and occurred where there was water, sand and silt present. As Christchurch has many underground aquifers, copious liquefaction was extremely widespread.

As a consequence of the Christchurch earthquakes in 2010 and 2011, many historic houses in Christchurch were badly damaged structurally. Along with this, the fabric of these buildings was also affected, including the historic wallpapers within. There was an awareness that it was important that the heritage material be saved and there was a concerted effort to work out what could be done to salvage as much as possible. It soon became evident that there needed to be more research done to ensure the safety and longevity of these wallpapers for the future. As the UK has been the fount of all conservation knowledge in terms of social heritage material it was felt this would be the best place to investigate their processes and procedures in relation to the conservation of heritage wallpaper.

The value overall of this experience

The value of the experience proved to be inestimable. The time and enthusiasm given by the UK experts was more than I could have reasonably asked for. Conservators, collection managers, and other experts in the field showed that conservation of damaged wallpapers is doable and worth it. In today's society there is a penchant for everything new and shiny and many heritage materials are being lost to this fascination for the new. One of the most important aspects of the research was how to enable the old to be kept while the urge for the new can also be accommodated. The network of experts in the field that I can now call on includes many individuals and is worldwide.

Key questions

- What methods and process can be utilised to save heritage wallpapers in situ?
- What preventive measures can be instigated to prevent deterioration of these wallpapers?
- What are the latest options available for storage both long and short term?

These key questions were addressed by interviewing experts in the conservation field from a wide range of cultural institutions (please refer Appendix 2 for a detailed list of places and people visited).

Key results

The research has enabled me to find procedures and solutions for future conservation of heritage wallpapers that will be of inestimable value for buildings that require conservation of their historic wallpapers. Wallpaper conservation can mean working on a complete room of surviving wallpaper, or giving attention to a few tatty fragments. The principal causes of deterioration are fluctuations of temperature and humidity, pest infestation, exposure to sunlight and atmospheric pollutants, or acidic reactions within the pigments, paper or substrate. In any of these situations, or following a disaster such as a fire or flood, the advice of a trained wallpaper conservator will be invaluable. Conservation on small areas that need surface treatment and repair can occasionally be carried out in situ. The most thorough treatment for badly affected papers could result in their complete removal. If this occurs the front and back of the paper as well as the wall can then be treated as required with surface cleaning, consolidation of flaking pigments, or delaminating paper and de-acidification before it is relined with a historically appropriate, conservation quality material prior to re-hanging.

The research has given me the opportunity to address the key issues in relation to the conservation of heritage wallpapers that are of great importance to my profession. By confronting the challenges set up by the research topic, I was able to learn, process and assimilate the information gathered.

The fellowship has allowed me to gather a wealth of knowledge relating to the conservation of heritage wallpapers from humble abodes like Moirlanach Longhouse in Scotland to the imposing grandeur of Blenheim Palace, the residence of Sir Winston Churchill. Museums and galleries in the UK have many comprehensive collections of wallpapers from the 17th century to today. Investigation of the processes and techniques used took me the length and breadth of the UK, where wallpaper conservators are the acknowledged experts in the conservation of Heritage wallpaper. Being able to discuss their research and see conservation processes in action has been invaluable for my conservation of heritage wallpapers back in New Zealand. This information will be able to be passed on to other conservators in Australasia via conferences and workshop in the future. The fellowship has also enabled me to set up networks worldwide to gain access to the latest information and research relating to this topic.

I have been and will continue to be able to share the knowledge I have gained in the following ways:

Conference presentations

- A paper presented at the New Zealand Conservators (NZCCM) Annual National Conference in October 2017 in Dunedin
- Talks to relevant professionals at Heritage New Zealand and city council heritage departments
- A forthcoming presentation of a paper at 2018 events for Heritage Architects, Heritage and/or Civic Trust groups

Workshops

It is proposed that workshops will be undertaken on the care of heritage wallpapers with interested parties such as Te Papa National Services, Heritage New Zealand, and social history museums.

Publications

An article is being written for:

- The UK Wallpaper Society
- New Zealand Conservators of Cultural Material
- A peer-reviewed conservation journal

Expert knowledge exchanges

I will endeavour to pass on the information via an expert knowledge exchange to all interested conservators and museums in the coming year.

Others who might be interested in the research

- Conservation architects
- Project managers

- Private individuals
- Heritage New Zealand
- Lottery Environment and Heritage

Recommendations, and to whom should they be addressed

- That New Zealand become more aware of its heritage material before it is lost
- That more conservation heritage professionals are employed in key heritage institutions
- That the Government consider funding the training of conservators to aid cultural and heritage institutions in New Zealand to make informed decisions on conservation of historic material

One of the most effective ways to encourage an awareness of heritage is for adequate funding to be available for owners of heritage properties. The Government, both national and local, has a responsibility to ensure our heritage in all forms survives for future generations to appreciate.

Wallpaper conservation can involve work on a complete room of surviving wallpaper or attention to a few fragments.

Causes of deterioration of wallpaper include:

- fluctuations of temperature and humidity,
- pest infestation,
- exposure to daylight,
- atmospheric pollutants,
- acidic reactions within the pigments, paper or substrate.

Specific examples were taken to the UK, as part of this project, including samples of wallpaper from Riccarton House that were discovered post-earthquake, for dissemination and discussion on the identification and assessment of the types of wallpaper. It was also interesting to discover how they related to historic houses in the UK. Discussions also took place on the best ways of conservation to ensure the longevity of the wallpapers in historic houses in the Canterbury region. From these fragments certain relevant procedures emerged ranging from advice on small areas that require surface treatment and repair that can be carried out in situ to the conservation of large sections of wallpaper. Access to the reverse of the paper is essential to discover any hidden problems and is a preferred method of treatment in the UK. The most thorough treatment for very deteriorated papers is their complete removal from the walls to be transferred to a paper conservation laboratory for repair. The front and back of the paper as well as the wall can then be treated including:

- surface cleaning,
- consolidation of flaking pigments,
- delamination of papers,
- de-acidification .
- relining with a historically appropriate, conservation quality material prior to re-hanging.

Another topic discussed in detail with the UK conservators was that of wallpapers attached to a sarking lining that covers clay and mud which is evident at both Riccarton House and Grubb Cottage in Lyttelton. The UK conservators were particularly interested in this as it is

not a known method of attaching wallpaper. This appears to be a unique process, apparently specific to New Zealand. They are particularly interested in my writing a peer reviewed article for the Wallpaper Society on this topic.

Assessing what could be done differently in relation to the conservation of wallpapers in light of the earthquakes in Christchurch, one obvious consideration would be to research alternative possible treatments. After this event many decisions had to be made quickly to ensure that other building repairers could start their work. In some cases, this meant undue pressure was placed on heritage professionals to come up with solutions that did not fit the ethics of conservation protocols. However, the alternative would have possibly involved the destruction of considerable amounts of heritage material. An example of this is the case of one historic house in Christchurch where the wholesale removal of a complete room of wallpaper was instigated to stabilise one area. The UK conservators suggested that perhaps the other areas of the room could have been covered with a material such as Tyvek and only the area around the required building repair be removed.

In some cases, after the Christchurch earthquakes, the disaster appeared to be cynically used, particularly regarding heritage, to remove historic material or buildings. Regarding recommendations to be picked up institutionally I would rather suggest that measures be put in place at a governmental level to ensure heritage buildings and their collections within be protected in a more systematic form to guard against similar situations happening elsewhere in New Zealand in the future. The USA, for example, after the New Orleans flooding, where many heritage materials were lost through looting and water damage asked FEMA to include on its initial emergency management team a heritage professional to advise on affected collections, handling and safe storage after a city-wide disaster. Thanks to a Getty scholarship undertaken in 2012, I was able to interview heritage personnel from New Orleans, San Francisco and Los Angeles on methods and processes that worked and what did not. One of the biggest issues that came out of this was the training of personnel, such as first responders, to be aware of heritage fabric and materials and to ensure further damage does not take place. California also instigated a state-wide training programme to educate heritage professionals, working alongside first responders in the event of catastrophic disaster. Canterbury has a networked disaster team but is only voluntary and the team knew they would not be effective in a city-wide event. Please refer link for their website - www.disalteam.co.nz. In light of the Christchurch quakes it would be appropriate that there be some overarching group, perhaps administered by Heritage New Zealand, that takes responsibility to ensure disaster prevention is high on the list of priorities for heritage institutions. Other options could possibly include the use of standards or credits. In the UK museums, art galleries and historic houses etc are given credits that can lead to, for example, less costly insurance if sprinklers are installed. In another instance government funding is much more accessible to museums that have disaster planning in place to a high standard. Of course, this all comes down to funding so there needs to be a will at a local and central government level to support such initiatives.

The UK have stricter rules in relation to the demolition or alteration of heritage buildings and their heritage fabric. Perhaps there should be some consideration of what could be done to improve in this area here in New Zealand.

Lessons learnt in relation to the Christchurch quakes and the research undertaken through the Winston Church Trust that will affect my conservation processes in the future would be to

first and foremost to try to enable communication between all relevant parties, to ensure the best possible outcome for the heritage material at risk. Also, that personal who respond to a disaster are made aware of historic materials such as wallpaper that need to be treated with care. The Blue Shield system uses blue plaques placed on cultural heritage buildings of significance so first responders know to take care. Other countries use this to safeguard their heritage.

“In accordance with [Article 16 of the 1954 Hague Convention](#), the distinctive emblem shall take the form of a shield, pointed below, colored persaltire blue and white (a shield consisting of a royal-blue square, one of the angles of which forms the point of the shield, and of a royal-blue triangle above the square, the space on either side being taken up by a white triangle).



This emblem is commonly referred as “*Blue Shield*”

→ The Blue Shield Emblem may be used as a means of identification of:

- **cultural property** (with an exception of cultural properties under special and enhanced protection);
- the **persons responsible for the duties of control** in accordance with the Regulations for the Execution of the Convention;
- the **personnel engaged in the protection of cultural property**;
- the **identity cards** mentioned in the Regulations for the Execution of the Convention.

In accordance with [Article 17 of the 1954 Hague Convention](#), during an armed conflict, the use of the distinctive emblem in any other cases than those mentioned above, and the use for any purpose whatever of a sign resembling the distinctive emblem, is forbidden.

The Blue Shield emblem shall also be presented *three times* together to facilitate identifying the following:

- **immovable cultural property under special protection**;
- the **transport of cultural property** under the conditions provided for in Articles 12 and 13 of the 1954 Hague Convention;
- **improvised refuges**, under the conditions provided for in the Regulations for the Execution of the Convention.

→ To ensure the recognition and identification of cultural property under **enhanced protection**, particularly during the conduct of hostilities, in order to ensure the effectiveness of the provisions of the 1999 Second Protocol and, more particularly, to contribute to the effectiveness of Article 12 of the 1999 Second Protocol on the “Immunity of cultural property under enhanced protection”, this distinctive emblem was established by the Sixth Meeting of the States Parties”.

Quoted from <http://www.ancbs.org/cms/en/about-us/about-blue-shield>

Conclusion

The Winston Churchill Fellowship has enabled me to undertake research that would not normally have been feasible. Working as a freelance conservator, it is rare to be able to undertake research such as this. The UK has a long history in the conservation of heritage wallpaper, but this area of conservation is a relatively new undertaking in New Zealand. For most of the history of wallpaper, it has been the poor relation in the realm of decorative arts:

It is fragile, ephemeral, and easy to replace so has often disappeared from the historical record. The history of wallpaper has been based largely on those pieces which have passed into archives and museum collections, and by papers that survive in historic buildings. It has, with some notable exceptions such as Chinese papers and the early 19th century French scenic decorated wallpaper, been seen as a backdrop to the furniture and interior decorations in the room. However, its role in the overall decorative scheme is an important one, and the choice of wallpaper affects the mood and style of a room and may influence the choice of other furnishings. It may also be indicative of the function of a room, and will often reflect the age, status or gender of its inhabitants or habitual occupants. William Morris advised in one of his lectures;

'Whatever you have in your rooms think first of the walls for they are that which makes your house and home, and if you do not make some sacrifices in their favour you will find your chambers have a kind of makeshift, lodging-house look about them...'

Wallpaper has proved to be a most durable fashion and has been appreciated as an expensive and luxurious decoration, as well as a 'make-do' substitute. It is often associated with cleanliness and comfort and has become a kind of short-hand symbol for home and domesticity. Apart from the sturdy, embossed wallcoverings such as Anaglypta, wallpaper is generally an ephemeral material. Whereas furniture and textiles often survive, and pass from one generation to the next, wallpaper is frequently damaged, covered over or removed altogether. It has generally been the easiest and, relatively speaking, the cheapest aspect of interior decoration to replace, and thus it is the least likely to survive. This is unfortunate because wallpaper is the most eloquent embodiment of changing fashions, vivid evidence of an individual's taste, and can be the fundamental framework of any new scheme of decoration.

Serious academic study of wallpaper, and the collecting and preserving of historic papers, did not begin until the early 20th century. Inevitably, museum collections and the papers that have been preserved in situ tend to be the best of their kind, and therefore in many respects the least typical. This has not been the case in New Zealand where many small domestic houses still have heritage wallpapers present, such as Grubb Cottage in Lyttelton, which is one of the oldest surviving houses from the period of early European settlement in Canterbury in New Zealand. It is these papers that should be preserved and studied as well as the large wealthy residences.

Acknowledgements

I would like to thank the Winston Churchill Memorial Trust for giving me this wonderful opportunity to undertake this research for the benefit of New Zealand, and the wider world and network of paper conservators.

I should also like to thank the following individuals:

Mark Sandiford and Phillippa Mapes, Sandiford and Mapes
Susan Catcher, Senior paper conservator, Victoria and Albert Museum
Nicola Walker, Collection Manager, Whitworth Art Gallery
Dan Hogger, Conservator, Whitworth Art Gallery
Phillippa McDonnal, Lincoln University Conservation Department
Helen Creasey, Paper Conservator, the Scottish Conservation Bureau

Elizabeth Hepher, Conservator, Department of Scottish Affairs
Emma Ward, Conservator, Museum of Domestic Architecture
Emma Inglis, Conservation Officer, Scottish Heritage
Andrew Bush, Senior Paper Conservator, National Trust England
Scott McDonald, Collections Manager, Bowhill, Scotland
Jocelyn Cuming, Head of Paper Conservation, Camberwell College of Art
Matthew Cromey, Wisley Royal Horticultural Society
Fiona Butterfield, Conservator, National Archives, Durham

Bibliography

Hawksley, L. October 11th, 2016. *Bitten by Witch Fever Wallpaper & Arsenic in the Nineteenth-Century Home*. ISBN-10: 0500518386. ISBN-13: 9780500518380

Hoskins, L. 1994. *The Papered Wall. The History, Patterns and Techniques of Wallpaper*. ISBN-10: 0500285683. ISBN-13: 9780500285688

Greig, A, Spring 2011. *Will it stand? Morris and Co. wallpaper stand book*.

Conservation Journal. Issue 59:

National Trust,.2006. *The National Trust Manual of Housekeeping* Butterworth Heinemann. ISBN 0 7506 55291 1

Dossie, R. 1764. *The handmaid to the arts*, 2nd edition, London.

Oman, C. and Hamilton, J. 1982 *Wallpapers*, London: Sotheby's.

Prosser, L. 2004 *Conserving and presenting the interiors at Kew Palace*. Conservation News, Vol. 93, November, pp. 20–22.

Rowell, C. and Robinson, J. M. 1996 *Uppark restored*, London.

The National Trust. Saunders, G. 2002 *Wallpaper in interior decoration*, London: V&A Publications.

Grevenstein, A. 1999. *Conservation of Chinese wallpapers – training and conservation*. Preprint from the 9th International Congress of IaDa, Copenhagen

Mapes, P. 1997. *Historic Wallpaper Conservation*. The Building Conservation Directory
<http://www.buildingconservation.com/articles/wallpap/wallpap.htm>

Weston, R. 2011. *Historic Wallpapers conservation and replacement*. The Building Conservation Directory
<http://www.buildingconservation.com/articles/historic-wallpapers/historic-wallpapers.htm>

Appendices

1. Itinerary

Sat 12 Aug	Christchurch to Auckland	NZ0542 CHC - AKL		
	12:00pm		Arrive	1.20 pm
Sat 12 Aug	Air New Zealand	Auckland		11.56 pm
Sun 13 Aug	Arrive	Singapore		6.30 am
	Depart	Singapore		9 am
	Singapore Airlines	Arrive	London Heathrow	3.40 pm
14 Aug–15 Aug	Bristol, Gloucestershire, Somerset			
14 Aug	Mark Sandiford Cirencester, Gloucestershire,			
16 Aug–18 Aug 17 Aug	Norwich Phillippa McDonnel, Yvonne Patterson Howard House			
21 Aug–27 Aug	London Victoria and Albert Museum, Susan Catcher, Senior Paper Conservator Camberwell College of Art, Jocelyn Cuming, Head of Paper Conservation Wisley Royal Horticultural Society, Matthew Cromeay Clandon House, Collections Manager Watts Artists' Village			
23 Aug	Andrew Bush, Milton Keynes, Head Conservator. National Trust, Kemble Drive, Swindon SN2 2NA, United Kingdom			
25 Aug	Emma Shaw, Conservator Museum of Domestic Design & Architecture (MoDA) MoDA Collections Centre Middlesex University 9 Boulevard Drive, Beaufort Park London, NW9 5H			

28 Aug–2 Sept		Manchester		
30 Aug		Nicola Walker, Collection Manager, Whitworth Art Gallery		
		Manchester Museum, Manchester Art Gallery		
3 Sept –10 Sept		Dunster Castle, Tyntesfield house		
10 Sept–14 Sept		Edinburgh		
		Helen Creasey, Scottish Conservation Bureau, Hopetoun House		
13 Sept		Emma Inglis, National Trust of Scotland		
14 Sept		Scott McDonald, Bowhill Manor, Selkirkshire		
15 Sept–19 Sept		Durham, Lincoln		
		Fiona Butterfield, Durham		
18 Sept		Phillipa McDonnall, Lincoln Conservation		
		University of Lincoln, Scholl of History and Heritage, Brayford Pool, Lincoln LN6 7TS		
19 Sept–25 Sept		Bristol, Swindon, Cardiff		
		Bristol Museum and Art Gallery		
		The Red Lodge		
		The Holborn Museum, Bath		
25 Sept–29 Sept		London		
26 Sept		Phillippa Mapes, Conservator, Royal Overseas League ROSL		
		Geffrye Museum / British Museum		
Fri 29 Sept	Singapore Airlines	London Heathrow	11.25 am	
	Arrive	Singapore	7.30 am	
	Depart	Singapore	8.50 am	Air New Zealand
	Arrive	Auckland	11.25 pm	Air New Zealand
	12.30 am	Stay at Novotel Airport Hotel		Check out 11 am
Sunday 1 Oct		Auck to Chch NZ0541	12:30pm	Arrive 1.55 pm

2. Details of research

Consultation and discussion on conservation of heritage wallpaper with Mark Sandiford, wallpaper conservator, Indian room of the café at Blenheim Palace

Blenheim Palace to look at Chinese wallpaper in the Indian Room

Blenheim Palace is a monumental English country house situated in Woodstock, Oxfordshire, United Kingdom. It is the principal residence of the Dukes of Marlborough, and the only non-royal non-episcopal country house in England to hold the title of palace. One of England's largest houses, it was built between 1705 and circa 1722. Blenheim Palace was designated a UNESCO World Heritage Site in 1987. Designed in the rare, and short-lived, English Baroque style, architectural appreciation of the palace is as divided today as it was in the 1720s. It is unique in its combined use as a family home, mausoleum, and national monument. The palace is also notable as the birthplace and ancestral home of Sir Winston Churchill.

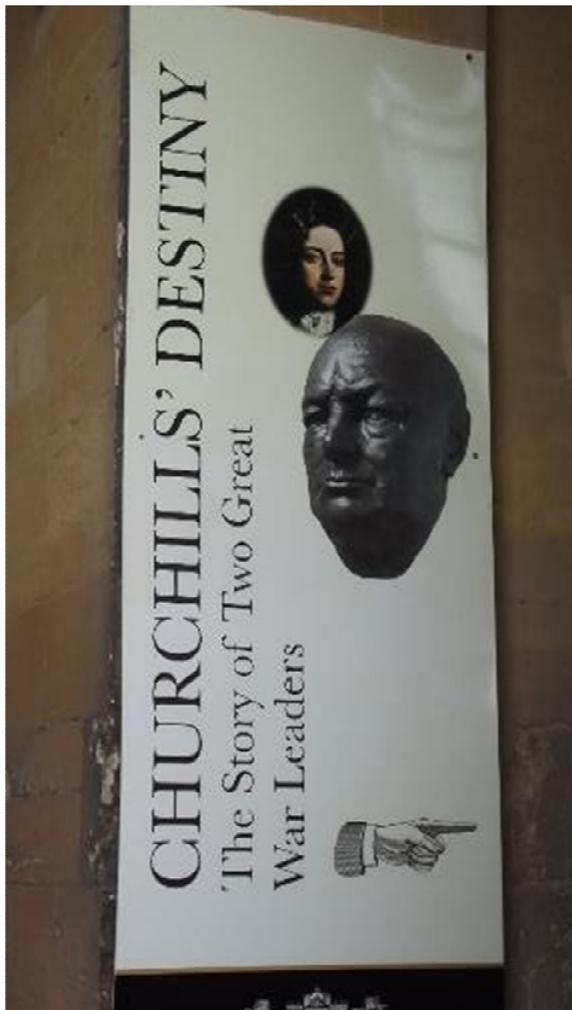
Following the palace's completion, it became the home of the Churchill – later Spencer-Churchill – family for the next 300 years, and various members of the family have wrought changes to the interiors, park and gardens. At the end of the 19th century, the palace was saved from ruin by the wealth brought into the family when the 9th Duke of Marlborough married American railroad heiress Consuelo Vanderbilt.



The Indian Room, Blenheim Palace



Conservator Mark Sandiford and friends



Exhibition on Winston Churchill at Blenheim Palace

Discussion at the Victoria and Albert Museum with Susan Catcher, Senior Paper Conservator, and expert in the conservation of heritage wallpapers



Conservator Susan Catcher, V&A

The Paper, Book & Paintings Conservation section of the V&A covers preservation mounting and has a paper conservator from the Royal Institute of British Architects. The section conserves a wide range of object types, including paintings, books, watercolours, prints, drawings, portrait miniatures, Indian miniatures, wallpaper and Chinese scrolls. The section works on exhibitions, displays, and loans as well as conserving objects from the study collections. It also advises on storage, the environment, and the condition of new acquisitions, and acts as couriers for travelling exhibitions and loans. Drawing on the specialisms within the section, the conservators have been able to offer practical conservation courses and workshops for conservators from other institutions and those working privately. Topics include the conservation of Japanese prints, European portrait miniatures, Japanese lining techniques, consolidation of damaged paint layers, and display mounting for books. They also participate in events in the V&A organised by the Learning & Interpretation department. These include gallery talks and demonstrations of examination techniques and talks on artists' materials and techniques. The section often has interns and placements from conservation training courses and other museums around the world.



Chinese wallpaper (sample)

The Museum of Domestic Design and Architecture (MoDA)

This is a museum in North London housing one of the most comprehensive collections of 19th and 20th century decorative arts for the home. The collection is designated as being of outstanding international value by Arts Council England. The collections include the Silver Studio collection of designs for wallpapers and textiles, the Charles Hasler collection, and the Crown Wallpaper Archive. The museum is part of Middlesex University. The MoDA Collections Centre is based at Beaufort Park in Colindale, close to Middlesex University's Hendon campus in the London Borough of Barnet.

The Silver Studio (run by the Silver family) was a commercial design practice, based in West London, which between 1880 and 1963 completed more than 20,000 schemes for items such as furnishing fabrics, wallpapers, tablecloths, rugs and carpets. The Studio employed several designers, some of whom were well known, and others whose work remained anonymous.

The Silver Studio's customers were retailers and manufacturers of wallpapers and textiles at all levels of the market, both in Britain and abroad. Designs for wallpapers were sold both to manufacturers producing cheap papers for the mass market, as well as those selling high quality products for the top end of the market. Silver Studio designs were bought by all the leading British textile manufacturers, including Stead McAlpin, Alexander Morton and AH Lee, to name just a few. Clients included well known producers of high quality fabrics such as Turnbull & Stockdale and the famous department store Liberty.

Because many of the Silver Studio's clients were mass producers, Silver Studio designs found their way into numerous British homes. The Studio's influence on British interiors over a remarkable length of time can be seen in the huge number of their designs that went into production.

After it closed in the early 1960s the contents of the Silver Studio were given to the Hornsey College of Art, which subsequently became part of what is now Middlesex University.

The significance of the Collection lies both in its completeness and coherence and in the importance and uniqueness of its component parts. It spans the period 1880–1960, an important period in the development of mass market furnishings and one less well represented in other collections.



Emma Ward, paper conservator, Museum of Domestic Architecture



Silver Studio sample wallpaper books



Andrew Bush, Senior Paper Conservator, National Trust

Andrew is the expert in the National Trust on heritage wallpapers. He discussed the historic nature of wallpaper from its inception when wallpaper was originally developed to line the inside of books and chests; later being used on walls. Wallpaper was first sold by stationers, and was produced in individual sheets, rather than rolls. Originally wallpaper was intended to emulate textiles, and became popular first with the rich, later filtering down through society. It wasn't really until the end of the 17th century that 'ordinary' people began to use wallpaper to make their homes look neater. However, this didn't include the homes of the poor – they started using wallpaper in the mid-1800s when it had become much more affordable and commonplace. In the 18th century, wallpaper manufacturing and designs became more specialised; attracting taxation in 1712. Papers were marked with tax stamps, and in some cases, tax officers would visit wallpaper manufacturers at least once a day – a practice that lasted until 1836.

Many innovations in design and manufacturing were developed, with the choice of wallpapers becoming vast: from stenciled to flocked; leather to textiles; block printed to machine printed. The majority of early William Morris wallpapers were produced with the block printed method.

Andrew Bush spoke about how he considered wallpaper in historic buildings to be 'alive': there are plenty of examples of wallpaper in museums, but in historic buildings, wallpaper is

still in situ; still serving its original purpose. This does have its cons – creating the right conditions to protect and preserve wallpaper can be difficult as it's a living, functional part of a building. It's also tempting to try and interpret the age of wallpaper purely by considering its pattern, but it's important not to rely on this – patterns come and go and only tell part of the story. It's better to rely on other factors – printing techniques or tax stamps, for instance – to determine the age of wallpaper.

Clandon House



Image courtesy of the National Trust

Clandon Park is a 220-hectare (540-acre) private agricultural parkland estate near West Clandon, near Guildford in Surrey. Within the estate sits Clandon House, owned separately by the National Trust since 1956. It had been the seat of the Earls of Onslow for over two centuries. The house had one of the best examples of heritage wallpaper in the UK. Sadly, on Wednesday 29 April 2015 a fire broke out and the house was effectively gutted, leaving only a shell. As another area of speciality is that of disaster preparedness for heritage institutions it was very interesting to visit to see what has survived. Surprisingly some vestiges of wallpaper remained attached to the burnt walls. The Collection Manager discussed the options that are being considered by the National Trust for the revival of this heritage building - most of which include not reverting to its original but instead creating an ultra - modern gallery within.

Also interestingly a Māori meeting house named *Hinemihi* can be seen in the gardens This was originally situated near Lake Tarawera in New Zealand and provided shelter to the people of Te Wairoa village during the eruption of Mount Tarawera in 1886. The building was covered in ash and surrounded by volcanic debris, but its occupants survived. It remained half buried until 1892 when Lord Onslow, (William Hillier Onslow, the 4th Earl) then Governor General of New Zealand, bought it, had it fully restored and shipped it to England. There are only three other Māori meeting houses outside New Zealand. This is currently in the process of being restored.



Image courtesy of the National Trust

Watts Gallery – Artists' Village



This is an art gallery in the village of Compton, near Guildford in Surrey. It is dedicated to the work of the Victorian-era painter and sculptor George Frederic Watts.

Watts moved to 'Limnerslease' in Compton in 1891, and with his artist wife, Mary Fraser-Tytler, planned a museum devoted to his work. This opened in April 1904, just before his death.

The architect of the Gallery was Christopher Hatton Turnor, an admirer of Edwin Lutyens and C. F. A. Voysey. Inspired by the Arts and Crafts movement, the building contains top-lit galleries that allow Watts's work to be displayed under natural light.

It is one of only a few galleries in the UK devoted to a single artist and is often hailed as a national gallery in the heart of a village. The Gallery was closed from September 2008 until 2010 for restoration.

Watts Gallery reopened in June 2011 after a major scheme of works, including extension, refurbishment and restoration. Visitors can now experience the Watts collection in the historic galleries displaying the original decorative schemes.

The Watts Gallery is currently restoring 'Limnerslease', G. F. and Mary Watts' home and studio.

Decorated ceiling at Limnerslease



The Whitworth Art Gallery in Manchester



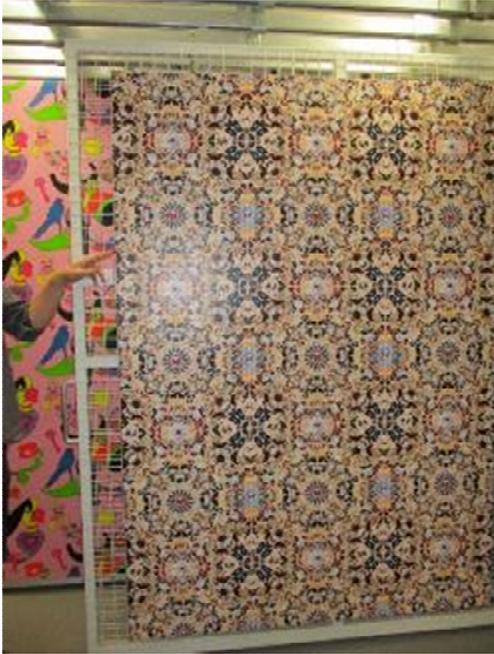
Head of Collection Care Nicky Walker and Conservator Dan Hogger

The gallery was founded as *The Whitworth Institute and Park* in 1889 by Robert Dukinfield Derbyshire with a donation from Sir Joseph Whitworth,. The first building was completed in 1908. In 1958 the gallery became part of the University of Manchester.

In February 2015, the Whitworth reopened after a £15 million capital redevelopment and received over 440,000 visitors in its first reopening year. It was shortlisted for the Stirling Prize and won the Art Fund's Museum of the Year in 2015.

Wallpaper collections are relatively rare, and the Whitworth's is made up of more than 5,000 examples, the bulk of which were given to the gallery in 1967 by The Wall Paper Manufacturers Ltd., which had controlled most of the UK wallpaper industry since 1899. The Whitworth felt like a fitting home for the products of an industry whose mechanisation, like that of textiles, was pioneered in the North West. Since the 1970s, further donations and purchases have helped make the collection one of the most important in the country. It is a diverse and highly eclectic collection whose range encompasses everything from elite hand-printed decorations to examples of industrial production for the popular market. It contains wallpapers and other wall coverings dating from the 17th century to the present, from simple patterns printed on small sheets of paper and 18th century luxurious embossed and gilt leather hangings to numerous late 19th century examples by designers such as William Morris and Walter Crane.

The broad range of wallpapers from the 20th century demonstrates the skill of craftspeople, the inventiveness of early post-war design, and the exuberance of the 1960s and 1970s. Modern and contemporary examples in the collection by artists such as Allen Jones, Robert Gober, Niki de Saint Phalle, Damien Hirst and Sarah Lucas reflect wallpaper's move from backdrop to centre stage.



Damien Hirst wallpaper

Howard House, Norwich



The grade II listed Howard House has stood empty for more than 25 years and, because its condition was deteriorating so badly, it was placed on Historic England's list of heritage at risk.

But when Orbit Homes bought the adjoining St Anne's Wharf site in King Street, Howard House – believed to date to the late 16th or early 17th century – came with the site.

After a quarter of a century of standing empty, the building, which originally belonged to Henry Howard, the Duke of Norfolk, is being restored.

Local building contractors WS Lusher and Son Ltd have been appointed to carry out the restoration. The house will be converted into an office. Orbit's £70m project for what it calls

St Anne's Quarter, could see 437 apartments constructed on St Anne's Wharf, which was once the garden of Howard House. The development site's medieval history – when it was the Austin Friars Priory – was revealed during an archaeological excavation conducted last summer. Archaeologists at the dig uncovered treasure and skeletons dating back to the 14th century.



Detail of wallpaper within Howard House

Manchester Art Gallery and Museum



Manchester Art Gallery, formerly Manchester City Art Gallery, is a publicly owned art museum on Mosley Street in Manchester city centre. The main gallery premises were built for a learned society in 1823 and today its collection occupies three connected buildings, two of which were designed by Sir Charles Barry. Both Barry's buildings are listed. The building that links them was designed by Hopkins Architects following an architectural design competition managed by RIBA Competitions. It opened in 2002 following a major renovation and expansion project undertaken by the art gallery.

Dunster Castle, Somerset



Dunster Castle is a former motte and bailey castle, now a country house, in the village of Dunster, Somerset. The castle lies on the top of a steep hill called the Tor and has been fortified since the late Anglo-Saxon period. After the Norman conquest of England in the 11th century, William de Mohun constructed a timber castle on the site as part of the pacification of Somerset. At the end of the 14th century the de Mohuns sold the castle to the Luttrell family, who continued to occupy the property until the late 20th century. The medieval castle walls were mostly destroyed following the siege of Dunster Castle at the end of the English Civil War, when Parliament ordered the defences to be slighted to prevent their further use. In the 1860s and 1870s, the architect Anthony Salvin was employed to remodel the castle to fit Victorian tastes; this work extensively changed the appearance of Dunster to make it appear more gothic and picturesque.

Following the death of Alexander Luttrell in 1944, the family was unable to afford the death duties on his estate. The castle and surrounding lands were sold off to a property firm, the family continuing to live in the castle as tenants. The Luttrells bought back the castle in 1954, but in 1976 Colonel Walter Luttrell gave Dunster Castle and most of its contents to the National Trust, which operates it as a tourist attraction. It is a Grade I listed building and scheduled monument.



Detail of some of the wallpapers at Dunster and issues related to this

Tyntesfield House, Somerset



Tyntesfield is a Victorian Gothic Revival house and estate near Wraxall, North Somerset . The house is a Grade I listed building named after the Tynte baronets, who had owned estates in the area since about 1500. The location was formerly that of a 16th-century hunting lodge, which was used as a farmhouse until the early 19th century. In the 1830s a Georgian mansion was built on the site, which was bought by English businessman William Gibbs, whose huge fortune came from guano used as fertilizer. In the 1860s Gibbs had the house significantly expanded and remodelled; a chapel was added in the 1870s. The Gibbs family owned the house until the death of Richard Gibbs in 2001.

Tyntesfield was purchased by the National Trust in June 2002, after a fundraising campaign to prevent it being sold to private interests and ensure it would be open to the public. The house was opened to visitors for the first time just 10 weeks after the acquisition, and as more rooms are restored they are added to the tour.



Main Hall, Tyntesfield House

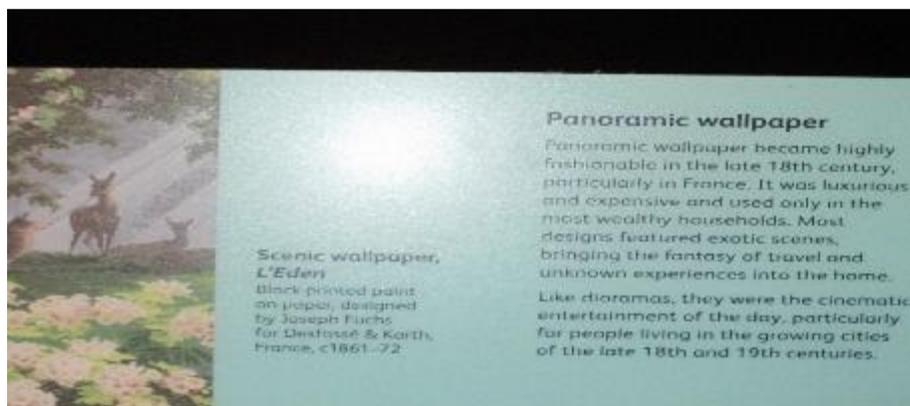
Royal Scottish Museum, Edinburgh

The National Museum of Scotland, Edinburgh, Scotland, was formed in 2006 with the merger of the new Museum of Scotland, with collections relating to Scottish antiquities, culture and history, and the adjacent Royal Museum (so renamed in 1995), with collections covering science and technology, natural history, and world cultures. The two connected buildings stand beside each other on Chambers Street, by the intersection with the George IV Bridge, in central Edinburgh. The museum is part of National Museums Scotland.

The National Museum incorporates the collections of the former National Museum of Antiquities of Scotland. As well as the national collections of Scottish archaeological finds and medieval objects, the museum contains artefacts from around the world, encompassing geology, archaeology, natural history, science, technology, art, and world cultures. The 16 new galleries reopened in 2011 include 8,000 objects, 80 per cent of which were not formerly on display.



Contemporary to historic wallpapers on display at the Royal Scottish Museum



Paper conservator Helen Creasey, Edinburgh



Helen outside her studio in Hopetoun House

The three partners of The Scottish Conservation Studio are qualified accredited members of the Institute of Conservation, and each has over 20 years of professional experience. Helen Creasy is a paper and photograph conservator who treats and advises on the conservation of prints, watercolours, drawings, photographic material, archive material, and 3-dimensional paper objects. She has a special interest in the conservation of heritage wallpaper. Tuula Pardoe is a textile conservator who treats and advises on the conservation of banners, flags, samplers, and costume and costume accessories. Will Murray is an artefacts conservator who treats and advises on the conservation of archaeological material, social history, arms and armour, and coins, medals and tokens.

Helen showed me three of her recent heritage wallpaper projects:

Historic Environment Scotland

Their remit is based on Scotland's first historic environment strategy 'Our Place in Time', which sets out how the historic environment will be managed. It ensures Scotland's historic environment is cared for, valued and enhanced, both now and for future generations.

It is a non-departmental public body with charitable status and is governed by a Board of Trustees, who were appointed by Scottish Ministers.

Historic Environment Scotland is responsible for more than 300 properties of national importance. Buildings and monuments in its care include Edinburgh Castle, Skara Brae, Fort George and numerous smaller sites, which together draw more than 3 million visitors per year.

They are also responsible for internationally significant collections including more than 5 million drawings, photographs, negatives, manuscripts and wallpaper samples.

1. Moirlanich Longhouse



In the 19th century, cruck-framed, lime-washed dwellings such as Moirlanich Longhouse were the typical homes of Scotland's rural communities. Inside, the family's living quarters were separated from the cattle byre by just a wooden partition. This conserved dwelling and byre in Glen Lochay, near Killin, is practically unchanged since it was last lived in by the Robertson family from at least 1809 to 1968. A major change in the longhouse's 200-year existence was the addition of corrugated iron over the thatch in the 1940s. The house is covered in heritage wallpaper, including over the extensive fire place.

Helen Creasey, Emma Inglis (left) and friends at Moirlanich





Restored wallpaper samples from Moirlanich

2. Bowhill, Selkirk



Bowhill House is a historic house near Bowhill at Selkirk in the Scottish Borders area of Scotland. It is a member of the Historic Houses Association, and is one of the homes of the Duke of Buccleuch. The house is protected as a Category A listed building and the grounds are listed on the Inventory of Gardens and Designed Landscapes in Scotland

Bowhill was built in 1708 by John, Lord Bowhill. His brother William Murray had bought the land earlier in 1690. In 1747, Francis Scott, 2nd Duke of Buccleuch, bought Bowhill for his son Lord Charles Scott who wanted to stand for Parliament in Roxburgh or Selkirk.

In 1767, Henry, the third Duke, started to plant forests in the grounds, and in 1800, the 4th Duke Charles started to revamp what was an occasional summer house and turned it into a villa with gallery hall. Walter, 5th Duke, made many changes and, in 1831, moved the entrance from south to north. The building was finally completed in 1876 when it was 133 m long.

Bowhill House is home to part of one of the world's greatest private art collections. In the dining room are works by Canaletto, Gainsborough, and Reynolds. It also has significant rooms of original heritage wallpaper.



How the wallpaper has faded

3. Abbotsford Melrose



Abbotsford is a historic country house in the Scottish Borders, near Melrose, on the south bank of the River Tweed. It was formerly the residence of historical novelist and poet, Sir Walter Scott. He first built a small villa and named it Abbotsford, creating the name from a ford nearby where previously abbots of Melrose Abbey used to cross the river. Scott then built additions to the house and made it into a mansion, building into the walls many

sculptured stones from ruined castles and abbeys of Scotland. In it he gathered a large library, a collection of ancient furniture, arms and armour, and other relics and curiosities, especially connected with Scottish history, notably the Celtic Torrs Pony-cap and Horns and the Woodwrae Stone, all now in the Museum of Scotland.

Scott had only enjoyed his residence one year when (1825) he met with that reverse of fortune which involved the estate in debt. In 1830, the library and museum were presented to him as a free gift by the creditors. The property was wholly disencumbered in 1847 by Robert Cadell, the publisher, who cancelled the bond upon it in exchange for the family's share in the copyright of Sir Walter's works.

The house was opened to the public in 1833 but continued to be occupied by Scott's descendants until 2004. The wallpapers are of significant importance to the history of the house.



Elizabeth Hepher, paper conservator, Edinburgh, Historic Environment Scotland



Historic Environment Scotland is a public body established to investigate, care for and promote Scotland's historic environment. This includes many samples of heritage wallpapers taken from houses that will be demolished.

Philippa McDonnell, Lincoln University Conservation Department



Phillippa McDonnell is a paint and decorative finishes researcher and conservator for Lincoln Conservation in the School of History and Heritage, College of Arts.



Samples and laboratory

Philippa Mapes, wallpaper conservator



Philippa is a qualified conservator of historic wallpapers, and former preventative conservator for English Heritage. She is currently studying for a PhD in the history of the 18th century wallpaper trade at Leicester University.

Geffrye Museum



The Geffrye Museum of the Home is located in Shoreditch, London. The Museum explores home and home life from 1600 to the present day. It was named after Sir Robert Geffrye, a former Lord Mayor of London and Master of the Ironmongers' Company. The museum is set in beautiful 18th century Grade I-listed almshouses of the Ironmongers' Company, built in 1714 thanks to a bequest by Sir Robert Geffrye. Inside the museum, evocative displays of London, middle-class living rooms and gardens illustrate homes and home life through the centuries, reflecting changes in society, behaviour, style and taste.

The museum's restored 18th century almshouse, taken back to its original condition and offering a rare glimpse into the lives of London's poor and elderly in the 1780s and 1880s, is open to the public on specific days.

Detail of one of the rooms at the Geffrye Museum



Wisley and the Royal Horticultural Society



The future of wallpaper? Wisley

Wisley is now a large and diverse garden covering 240 acres (971,000 m²). In addition to numerous formal and informal decorative gardens, several glasshouses and an extensive arboretum, it includes small-scale 'model gardens' which are intended to show visitors what they can achieve in their own gardens, and a trials field where new cultivars are assessed.

In April 2005 Alan Titchmarsh cut the turf to mark the start of construction of the Bicentenary Glasshouse. This major new feature covers three quarters of an acre (3,000 m²) and overlooks a new lake built at the same time. It is divided into three main planting zones representing desert, tropical and temperate climates. It was budgeted at £7.7 million and opened 26 June 2007. There were further developments in 2017 to which end they used wallpaper on external fences to mask the building works. To see the plants fibres that make up paper in all its forms proved to be an interesting and educative process.