

# 3D laser scanning for conservation documentation

**Jennifer O'Connell**

Sir James Gobbo AC CVO Fellowship

**An ISS Institute Fellowship sponsored by**

Sir James Gobbo AC CVO.



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## i. EXECUTIVE SUMMARY

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The purpose of the Fellowship was to explore the use of 3D laser scanning for conservation documentation. The Fellow, Jennifer O'Connell, learnt the application of this technique in the context of an international volunteer project. Both of these aspects of the Fellowship contribute to the upskilling of conservators – from students through to professionals.

O'Connell undertook the project in Gjirokastra, Albania. The goal of the project was to document existing wall paintings and make recommendations for conservation treatment. The focus of the documentation was an Ottoman-era tower house - the Skenduli House. The Skenduli House is classified by the United Nations Educational Scientific and Cultural Organisation (UNESCO) as a Category 1 monument in a World Heritage Site. The preservation is considered important because it contributes to the sustainable economy based on heritage tourism in Gjirokastra.

Conservation documentation involves the recording of materials and techniques used, the current condition of the monument, identification of any deterioration evident or other risks to the monument from a variety of sources, such as water damage or potential hazards. Having made an assessment, recommendations can then be made. The photographic documentation is crucial to this process to record the current condition and to serve as a document for comparison in the future. The benefits of the 3D laser scans for the wall paintings are particularly evident on the surfaces that are not uniform; for example on the fireplace in the Bridal Room of Skenduli House.



The skills and knowledge acquired by the Fellow will be shared with the Australian conservation community. O'Connell established links through this project that will encourage future opportunities for Australian conservators to work on international preservation projects. This project also serves as a potential model for an international preservation project to be hosted in Australia.

*Skenduli House with the Gjirokastra Castle in the background.*

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## ii. ABBREVIATIONS/ACRONYMS

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<b>ADFAS</b>	Association of Australian Decorative and Fine Arts Societies
<b>AICCM</b>	Australian Institute for the Conservation of Cultural Material
<b>AiP</b>	Adventures in Preservation
<b>AVI</b>	Australian Volunteers International
<b>IMK</b>	Instituti i Monumenteve të Kulturës (Institute of Cultural Monuments, Albania)
<b>ISS Institute</b>	International Specialised Skills Institute
<b>RSL</b>	Returned Servicemen's League
<b>SAM</b>	Storia Ambiente Monumento (History Environment Monument), Calabria, Italy
<b>TLS</b>	Terrestrial Laser Scanning
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organisation
<b>ZGTF</b>	Ziggy Garnett Travelling Fellowship

## iii. DEFINITIONS

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### **A secco**

Technique of painting on dry plaster using pigments mixed in a binder.

### **Category 1 & 2**

Monuments in Gjirokastra, Albania were given Category 1 and 2 status depending on their importance when the town was declared a Museum Town in 1961.<sup>1</sup> In 2005, UNESCO declared the town a World Heritage Site and retained this category system. The categories determine the permission to change the monument. For instance, no changes or additions may be made to Category 1 monuments, whereas in Category 2 monuments, only the exterior must be kept in tact.

### **Conservation**

All measures and actions aimed at safeguarding tangible cultural heritage while ensuring its accessibility to present and future generations. Conservation embraces preventive conservation, remedial conservation and restoration. All measures and actions should respect the significance and the physical properties of the cultural heritage item.<sup>2</sup>

### **Overpaint**

A layer of paint, for instance limewash, applied over the original paint layer such as the a secco wall painting.

### **Wall painting**

Surface decoration using media (pigment and binder) on an interior or exterior of a building, including a mural or fresco.

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<sup>1</sup> Kreshnik Merxhani and Elena Mamani, Construction Materials in Historical And Monumental Buildings – Gjirokaster, International Students' Conference of Civil Engineering, ISCCE 2012, 10-11 May 2012, Epoka University, Tirana, Albania.

<sup>2</sup> International Council of Museums Committee for Conservation, 'Terminology to characterize the conservation of tangible cultural heritage,' viewed 12 March 2015, <http://www.icom-cc.org>

# 1. ACKNOWLEDGEMENTS

Jennifer O'Connell thanks the following individuals and organisations that have generously given of their time and their expertise to assist, advise and guide her through this Fellowship program.

## Awarding Body – International Specialised Skills Institute (ISS Institute)

The International Specialised Skills Institute (ISS Institute) is an independent, national organisation. In 2015 it is celebrating twenty-five (25) years working with Australian governments, industry education institutions and individuals to enable them to gain enhanced skills, knowledge and experience in traditional trades, professions and leading edge technologies.

At the heart of the ISS Institute are our individual Fellows. Under the Overseas Applied Research Fellowship Program the Fellows travel overseas. Upon their return, they are required to pass on what they have learnt by:

- Preparing a detailed report for distribution to government departments, industry and educational institutions
- Recommending improvements to accredited educational courses
- Delivering training activities including workshops, conferences and forums.

Over 350 Australians have received Fellowships, across many industry sectors. In addition, recognised experts from overseas conduct training activities and events. To date, 30 leaders in their field have shared their expertise in Australia.

According to Skills Australia's 'Australian Workforce Futures: A National Workforce Development Strategy 2010'.

*Australia requires a highly skilled population to maintain and improve our economic position in the face of increasing global competition, and to have the skills to adapt to the introduction of new technology and rapid change. International and Australian research indicates we need a deeper level of skills than currently exists in the Australian labour market to lift productivity. We need a workforce in which more people have skills and knowledge, but also multiple and higher level skills and qualifications. Deepening skills and knowledge across all occupations is crucial to achieving long-term productivity growth. It also reflects the recent trend for jobs to become more complex and the consequent increased demand for higher-level skills. This trend is projected to continue regardless of whether we experience strong or weak economic growth in the future. Future environmental challenges will also create demand for more sustainability related skills and knowledge across a range of industries and occupations.*

In this context, the ISS Institute works with our Fellows, industry and government to identify specific skills and knowledge in Australia that require enhancing, where accredited courses are not available through Australian higher education institutions or other Registered Training Organisations. The Fellows' overseas experience sees them broadening and deepening their own professional knowledge, which they then share with their peers, industry and government upon their return. This is the focus of the ISS Institute's work.

For further information on our Fellows and our work see <http://www.issinstitute.org.au>.

Jennifer O'Connell also thanks the CEO (Bella Irlight AO) and staff (Ken Greenhill and Paul Sumner) of ISS Institute for their assistance in planning and development of the Fellowship and completion of this report.

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## 1. ACKNOWLEDGEMENTS

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### Supporters

- Andrew Thorn, Conservator, ArtCare
- Dr Nicole Tse, Painting Conservator and Lecturer, The University of Melbourne
- Caroline Kyi, PhD Candidate, The University of Melbourne
- Judith Broeker, Director, Adventures in Preservation

### Employer Support

- David Stein, David Stein & Co Art Restoration Service, for support prior to the international component of the Fellowship.

### Organisations Impacted by the Fellowship

#### Industry

- Australian Volunteers International
- National Trust of Australia
- Adventures in Preservation, Boulder, Colorado
- Institute of Cultural Monuments, Tirana, Albania
- Gjirokastra Community Development Organisation, Gjirokastra, Albania

#### Professional Associations

- Australian Institute for the Conservation of Cultural Material (AICCM)

#### Education and Training

- Centre for Cultural Materials Conservation, The University of Melbourne
- The University of Canberra

#### Community

- UNESCO



*Top: The Old Bazaar in Gjirokastra, Albania was declared a UNESCO World Heritage Site in 2005.*

*Bottom: Fellow in the Old Bazaar in Gjirokastra, Albania.*



## 2. ABOUT THE FELLOW

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### **Name**

Jennifer O'Connell

### **Employment**

- Painting Conservator (freelance)
- Secretary, AICCM National Council (voluntary)

### **Qualifications**

- Master of Arts (Cultural Material Conservation), The University of Melbourne, 2011
- Postgraduate Certificate in Arts (Photographic Materials Conservation), University of Melbourne, 2011
- Bachelor of Arts (Honours), University of Melbourne, 2005
- Diploma in Creative Arts, University of Melbourne, 2002

### **Memberships**

- Australian Institute for the Conservation of Cultural Materials (AICCM)
- The Association for Preservation Technology International (APTI)

### **Biography**

Jennifer O'Connell is a painting conservator whose work experience includes conservation projects with the Centre for Cultural Materials Conservation, International Conservation Services, Artcare and David Stein & Co. She is an AICCM member, is currently the Secretary to National Council, and has also worked on community projects at Waringarri Aboriginal Arts Centre in Western Australia and the RSL Life Care War Memorial Museum in Narrabeen, NSW. O'Connell was the recipient of the Association of Australian Decorative and Fine Arts Societies (ADFAS) Student Conservator of the Year Award (University of Melbourne) in 2011.

### **Awards/ Scholarships**

- Student Conservator of the Year (The University of Melbourne) awarded by ADFAS, 2011
- Internship Scholarship for Interstate Travel - Graduate School of Humanities, Social Sciences Scholarship, The University of Melbourne, 2010

### **Publications**

- Jennifer O'Connell, Lyndon Ormond-Parker, Suzanne Spinner and Robyn Sloggett 'Waringarri Aboriginal Arts: Rethinking practices in conservation documentation through assessing the needs of a community arts centre,' AICCM Bulletin, Vol. 34 (2014), pp. 75-84.
- Jennifer O'Connell, 2012, 'RSL LifeCare Project: Stage Two', AICCM National Newsletter, No 122, August, pp 9-11.
- Jennifer O'Connell and Spohie Lewincamp, 2013, Community Engagement in the Conservation of a War Museum Collection, Poster Presentation, 41st AIC Annual Meeting 29 May – 1 June 2013, Indianapolis. Available online: [http://www.conservation-us.org/docs/default-source/annualmeeting/2013am\\_poster12\\_community\\_engagement.pdf?sfvrsn=2](http://www.conservation-us.org/docs/default-source/annualmeeting/2013am_poster12_community_engagement.pdf?sfvrsn=2)

### 3. AIM OF THE FELLOWSHIP PROGRAM

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The Fellowship Program allowed the Fellow to travel overseas, work with international experts and gain knowledge and learn the following skills while in the program:

- How to use 3D laser scan technology and assess its benefits to wall painting conservation documentation
- Participate in the Adventures in Preservation model of volunteer preservation project and assess if it is suitable in the Australian context
- Assess if the experience would work as additional education and training for conservators in Australia, as there is limited conservation training for graduates and early career painting conservators.

## 4. THE AUSTRALIAN CONTEXT

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Opportunities for training in wall painting conservation are limited in Australia. There are two cultural heritage conservation degree programs in the region: a masters program at the University of Melbourne and an undergraduate degree at the University of Canberra. Further skills based training are provided ad hoc by visiting conservators and hosted by institutions and promoted through the AICCM. Access to this training is based on the availability of the sessions and the number of places offered and to whom. For example, the Cleaning of Acrylic Painted Surfaces training held at the Art Gallery of NSW, Australia, in December 2013 was limited to mid-career professionals. There is no specific specialisation in wall painting conservation, therefore further training in this area could be promoted and incorporated into existing course structures or through professional development.

The Australian Institute of the Conservation of Cultural Materials (AICCM) is the professional body for conservators in Australia. It is not currently compulsory to be a member nor is Professional Membership compulsory to obtain in order to practice conservation. Australian conservators are expected to practice conservation under the Ethics and Code of Conduct as laid out by the AICCM.<sup>1</sup>

The University of Melbourne conducts practice-based learning for conservators in addition to the Masters program. One successful program is the conservation of the museum collection at the RSL LifeCare in Narrabeen, New South Wales. Having participated in this practice based learning opportunity, the Fellow looked at international opportunities.

3D Laser scanning occurs in the heritage sector in Australia. For instance, the Shrine of Remembrance was scanned to assist with the set out of paving.<sup>2</sup> 3D scans allow for interactive viewing of a site; for instance the Herculaneum Project.<sup>3</sup> The CSIRO also conduct 3D scans of buildings. The use of the 3D scans in paintings conservation will be an addition to these already established practices.

A 'Strengths, Weaknesses, Opportunities and Threats' (SWOT) analysis was applied the following;

- 3D laser scanning in conservation, and
- an international voluntary project as a means of conservation training.

### SWOT analysis - 3D Laser Scan

#### Strengths

- Results can be shared widely
- Improves productivity
- Existing knowledge base
- Demand for reduced manual drawing time
- Existing industry demand for 3D output
- Has capacity to be used in other formats, such as web applications

#### Weaknesses

- Industry reluctance to change
- Lack of training support
- Limited knowledge within the conservation profession in the techniques of 3D laser scanning

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<sup>1</sup> Australian Institute for the Conservation of Cultural Materials, 'Code of Ethics and Code of Practice,' 26 February 2015, <<http://www.aiccm.org.au>>.

<sup>2</sup> Laser Scanning Pty Ltd, 'Portfolio', viewed 26 February 2015 <<http://laserscanning.com.au/portfolio/>>.

<sup>3</sup> <http://www.herculaneum.org/hcp-home/eng/virtualtour.html>

## 4. THE AUSTRALIAN CONTEXT

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- Limited machines in Australia
- Lack of local research and development capacity
- Access to software required

### **Opportunities**

- Defines new markets for conservation documentation and project promotion
- Brings painting conservation on par with architectural / heritage conservation
- Develops Australian conservators' skills in line with international standards
- Develop research and development capacity beyond current level

### **Threats**

- Add unrealistic expectations on condition reporting
- Equipment is expensive to purchase
- Potential to divert funding from other key areas of conservation

## SWOT analysis - Conservation Volunteer Project

### **Strengths**

- Greater results can be achieved
- Improves productivity - more cultural heritage can be preserved
- Existing knowledge base can be utilised

### **Weaknesses**

- Industry reluctance to change
- Lack of training support
- Lessen the value of trained professionals
- Draw work away from professional conservators
- Expectations of volunteers

### **Opportunities**

- Increases the scope for viable conservation projects
- Increase tourism within Australia
- Develops Australian conservators' skills such as supervision and training
- Create relationships between community and profession

### **Threats**

- Untrained volunteers working in cultural heritage conservation
- Expensive to set up

## 5. IDENTIFYING THE SKILLS AND KNOWLEDGE ENHANCEMENTS REQUIRED

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There are examples of areas in Australian industries and practices where there are weaknesses in innovation, skills, knowledge, experience, policies and/ or formal organisational structures to support the ongoing successful development and recognition of individuals and the particular sector.

The focus of all ISS Institute Fellowships is on applied research and investigation overseas by Australians. The main objective is to enable enhancement and improvement in skills, knowledge and practice not currently available or implemented in Australia and the subsequent dissemination and sharing of those skills and recommendations throughout the relevant Australian industry, education, government bodies and the community.

The Skill Enhancement areas of applied research for this Fellowship are identified as follows:

**1. Record and investigate the 3D laser scan of a building for the conservation and preservation of wall paintings:**

- a. Identify and assess the needs for new conservation documentation involving 3D laser scanning
- b. The use of scanning equipment for wall paintings
- c. Preparation for scanning
- d. Reading the information
- e. Sharing the information

*The desired outcome is an assessment of the use of 3D technology its application in conservation practice.*

**2. Monitor the model of volunteer and tourism in conservation projects and the organisation of a volunteer preservation project:**

- a. Project management
- b. Conservation plan
- c. Identification of tasks for volunteers
- d. Identification of tasks for conservators/conservation graduates/conservation students
- e. Achievable outcomes.

*The goal is to assess the function of the volunteer model as a training ground for conservators and the potential for its application in Australia.*

## 6. THE INTERNATIONAL EXPERIENCE

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The Fellow travelled to Gjirokastra in southern Albania and undertook the project at Skenduli House, a traditional Ottoman era tower house. Gjirokastra has been a UNESCO World Heritage Site since 2005. There were ten people involved in the project:

- Edlira Çausi, Restorer, Instituti i Monumenteve të Kulturës, IMK
- Gentian Vokopola, Restorer, IMK
- Jennifer O’Connell, ISS Institute Fellow, AiP Volunteer
- Ceilidh Colburn, ZGTF Scholar, AiP Volunteer
- Debbie Rehn, Architect, AiP Volunteer
- Alicia Yoder, Construction Project Engineer, AiP Volunteer
- Salvatore Annaloro, Giovanni Romeo, Raimondo Tripodi and Domenico Quero, Architects, Storia Ambiente Monumento, AiP Volunteers.

### Conservation Documentation

The documentation involved an assessment of the Ottoman architectural site, in particular the wall paintings. This included an assessment of the building envelope; for example checking the stability of the roof to ensure that leaks did not occur. The documentation includes recommendations in terms of treatment and site care. See Attachment 1: Condition Report. Skenduli House is a three-storey Ottoman Tower house built in 1700 and with renovations in the nineteenth century. The house is currently owned by Nesip Skenduli, but during communist times the house was taken by the state and used as the Ethnographic Museum. During this time most furnishings were removed and the house sustained some damage. In the past ten years, repairs have taken place, particularly on the roof and on the exterior walls.

Over a four-week period, the Fellow organised the conservation documentation by:

- Working with the scaffold contractors to assure access to the exterior wall paintings
- Holding discussions with Nesip Skenduli (property owner) regarding the history of the house
- Collecting information pertaining to the house, e.g. images of old photographs, a previous condition assessment, diagrams of the house
- Sourcing and organising of supplies for documentation
- Printing of hard copies of the photographs of the wall paintings taken by SAM
- Decision making around terminology and legend for the overlays, in discussion with Edlira Çausi, local restorer
- Identification that the overlays are particularly useful for areas of overpaint
- Completing overlay diagrams of damage and deterioration with the volunteers
- Taking readings of temperature and relative humidity in the Bridal Room (most significant room in the house)
- Site visits of similar houses to compare wall painting styles and techniques
- Supporting SAM to undertake the 3D scan of the building. SAM took photographs of each of the examples of visible wall paintings. A suitable legend was developed between the conservators and then explained to the volunteers. Conservators worked with volunteers to complete hand drawn overlay diagrams on copies of printed photographs.

## 6. THE INTERNATIONAL EXPERIENCE

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*Top: Exterior of Skenduli House where partial wall paintings are evident.*

*Bottom: Scaffold set up at Skenduli House to access exterior wall paintings for documentation.*







*Exterior wall paintings at Skenduli House.*

## 6. THE INTERNATIONAL EXPERIENCE

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*Decorated fireplace in the Bridal Room at Skenduli House.*

## 6. THE INTERNATIONAL EXPERIENCE

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*The Fellow, Jennifer O'Connell, examining the paintings on the fireplace under magnification in the Bridal Room.*

## 6. THE INTERNATIONAL EXPERIENCE

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### 3D Laser Scanning

SAM conducted 3D laser scans of the Skenduli and Kabili Houses during the project in September 2014. The areas scanned included the façade and the Bridal Room at Skenduli House. The process does not require external lighting. Reference points are used so that the information can be matched together. The process is described on the SAM website:

*“La tecnologia Laser Scanner 3d è essenzialmente caratterizzata dalla rapida cattura di dati tridimensionali tramite l'utilizzo di un fascio di luce laser riflesso da una superficie o da un oggetto. Utilizzando questa tecnologia possiamo analizzare un oggetto reale/ambiente in termini di geometria, texture e colore, quindi possiamo successivamente utilizzare tali dati per creare un modello virtuale che può essere misurato, analizzato e visualizzato nello stesso momento che lo guardiamo”.*

The English interpretation of this statement is as follows:

“The technology Laser Scanner 3d is essentially characterized by the rapid capture of three-dimensional data through the use of a laser light beam reflected from a surface or an object. Using this technology we can analyze a real object / environment in terms of geometry, texture and color, so we can then use that data to create a virtual model that can be measured, analysed and displayed at the same time we watch it”.<sup>1</sup>

The equipment used at the Skenduli and Kabili Houses by SAM was a Leica ScanStation 2 laser station that acquires 50,000 points per second from up to a distance of 300 metres. It is considered Terrestrial Laser Scanning (TLS) It has a range of 360° x 270° meaning that it can operate on large areas with considerable speed. A 3D image collects on the screen of the laptop in real time and records all data such as measurements and angles.

#### **Hardware used by SAM:**

- Leica ScanStation 2.

#### **Software used by SAM:**

- Autodesk autocad 2013
- Leica Cyclone 8.0
- Leica CloudWorx 4.2.

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<sup>1</sup> Storia Ambiente Monumento, 'Rilievi Con Laser Scanner 3D,' viewed 26 February 2015, <<http://www.samcoop.com/#/rilievi-con-laser-scanner-3d/c1yp3>>



## 6. THE INTERNATIONAL EXPERIENCE

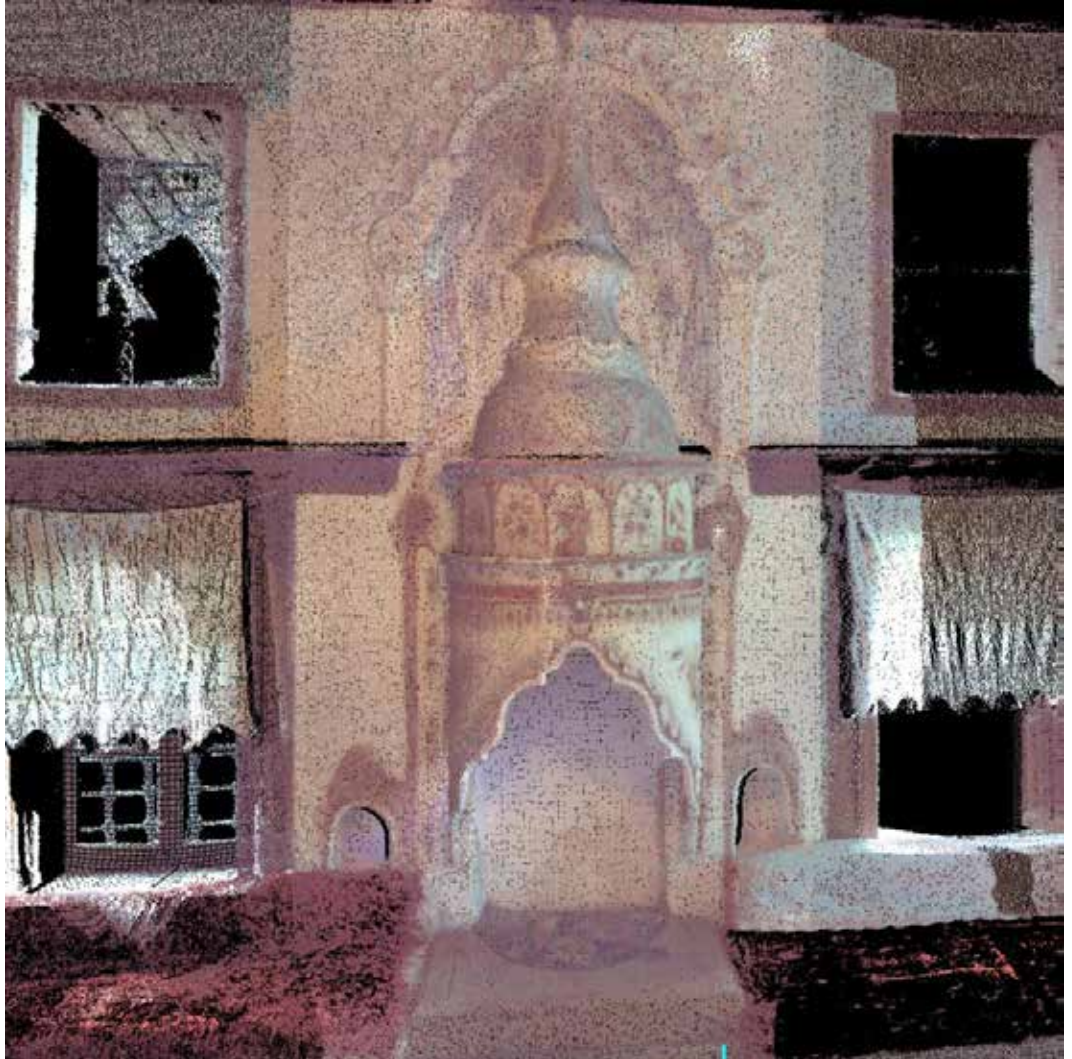
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*The 3D laser scanning equipment - a Leica ScanStation 2 connected to a laptop so the user can watch the scan as it is created.*

## 6. THE INTERNATIONAL EXPERIENCE

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*Scan of the fireplace in the Bridal Room in Skenduli House.*

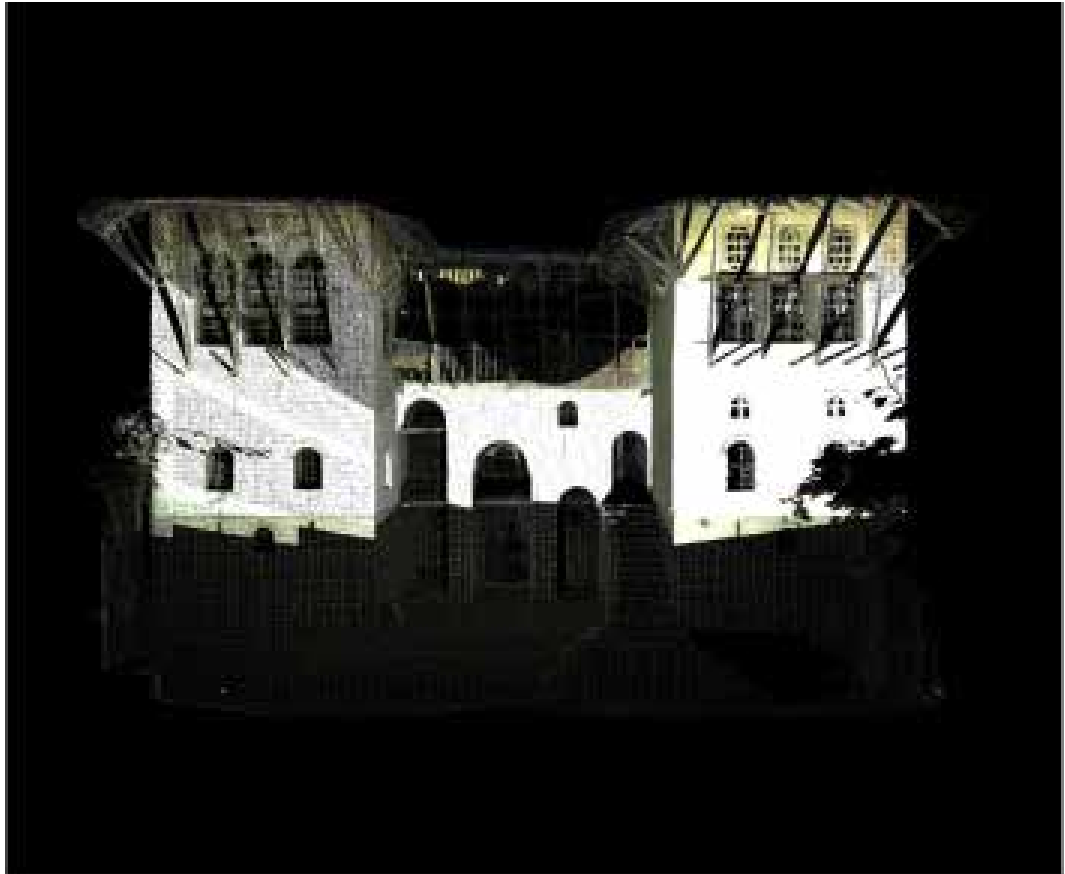


*Scan the side of the fireplace in the Bridal Room in Skenduli House.*



## 6. THE INTERNATIONAL EXPERIENCE

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*Scan of Skenduli House exterior.*

### Meetings

The Fellow met with the following contacts in Albania regarding local cultural heritage management practices: Albert Kasi and Kreshnik Merxhani, Ministria e Kulturës.

Albert and Kreshnik were the local contacts for the AiP project. The Fellow met with them to discuss the UNESCO status that Gjirokastra has as a World Heritage Site and the responsibility that comes with working on a Category 1 building. World Heritage status is important for Gjirokastra tourism and economic growth. It also means that there are protocols to follow when working on the wall paintings at Skenduli House. For instance, Albanian conservators needed to be present and any restoration work has to go through an approval process. This is why the documentation was so important.

Like many other sites with World Heritage status, the upkeep of the buildings involves a lot of work without funding from UNESCO. It is, however, useful for promoting a tourism-based economy.<sup>2</sup>

Janneka Hofs is a student intern from the Netherlands who is writing her thesis on collection care of the Ethnographic Museum and Skenduli House. Janneka is writing a manual for care of the interior; for example the objects, such as photographs, that are on display in the building.

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<sup>2</sup> Aylin Orbasli, 'World Heritage status can be a poisoned chalice for cities,' *The Conversation*, 19 February 2015.

## 6. THE INTERNATIONAL EXPERIENCE

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### Site Visits

The Fellow undertook the following site visits in Gjirokastra to learn more about Albanian-Ottoman architectural style.

#### **Zekate House, Gjirokastra**

The Zekate House is also an Ottoman tower house and is very similar in design to the Skenduli House. The wall paintings in the Bridal Room extend beyond the fireplace and around the walls, suggesting that perhaps some wall paintings in the Skenduli House have been overpainted (see Attachment 1: Condition Report). The fireplace on the second level has a cloth hanging around it. Pegs hammered into the plaster attach the cloth. The construction of the fireplace is plaster on mesh with cross hatch pattern. This could explain the holes in the Skenduli fireplace (see Attachment 1: Condition Report).



*The Bridal Room in Zekate House shows similar wall paintings to those at Skenduli House.*

## 6. THE INTERNATIONAL EXPERIENCE

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*The wall paintings at Zekate House extend past the fireplace and around the room.*

## 6. THE INTERNATIONAL EXPERIENCE

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### **Babameto House**

Babameto House is home to the Gjirokastra Community and Development Organisation (GCDO). It is an historic house converted into a hostel and a cultural centre. The GCDO run many programs from this office, including the Folk Festival every five years, conferences and meetings. The Fellow presented on the work being undertaken at Skenduli House at a round table meeting that was held as part of a cultural festival in September 2014. The Babameto House is an example of a Category 1 site that is being used in the tourism industry.



*Babameto House.*



## 6. THE INTERNATIONAL EXPERIENCE

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*Interior of Babameto House.*



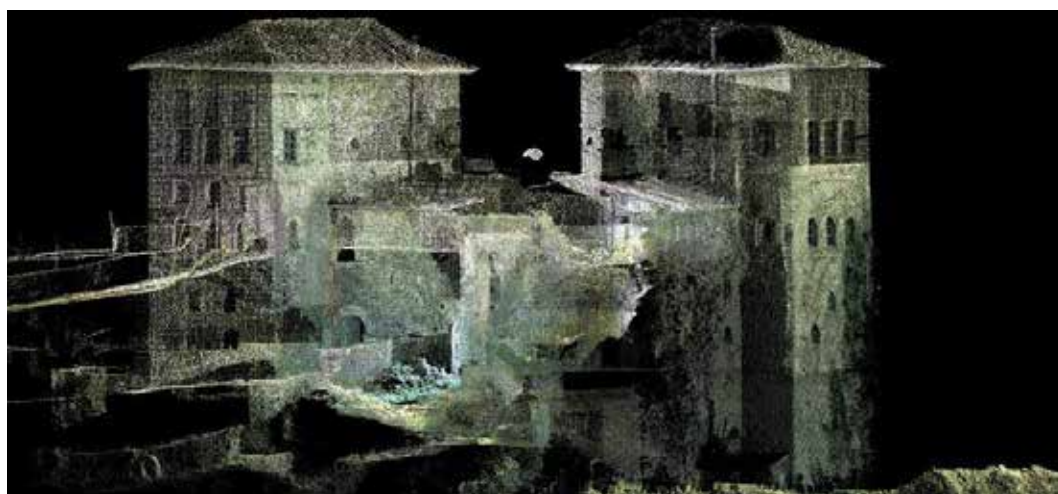
*A traditional Albanian costume on display in Babameto House.*

## 6. THE INTERNATIONAL EXPERIENCE

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### Kabili House

The Kabili House is another example of Ottoman architecture, but it is in a degraded state. A full 3D laser scan was undertaken for structural purposes (not for the wall paintings). The scans are being used to apply for funding to restore the house.



*Scan of the Kabili House, which is in a state of deterioration.*



*Scan of the Kabili House where the exterior wall has collapsed.*

### Cultural Heritage without Borders

The Cultural Heritage without Borders (CHwB) office in Gjirokastra is home to the Swedish organisation that is independent and non-governmental. The Fellow met Lejla Hadzic, the office manager, and staff and volunteers working there. At the time, a restoration camp was being run. The restoration camps are organised by CHwB with local architects and experts such as master builders and plasterers. The purpose of the camps is to train heritage workers in conservation and restoration of traditional houses. In some cases, there may only be one master of a trade remaining in the town. It is important, therefore, to train others in these skills. The sites are chosen by an application process whereby locals, either individuals or organisations, apply for work that needs to be done. Skenduli House was one such site



## 6. THE INTERNATIONAL EXPERIENCE

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in the past, where plaster and roof work has been completed. The participants are usually architectural students from the Balkans.

The work done by CHwB is particularly important in the Balkan region. The organisation's mission and reconciliation statements are as follows:

*Our mission is to promote cultural heritage as both a right in itself and a resource. CHwB works with civil society and institutions at all levels to strengthen peace-building, sustainable socio-economic and democratic development and the realisation of human rights.*

*Reconciliation Processes: Intercultural dialogue is encouraged and strengthened to help build trust and assist in peace building between different groups in societies affected by conflict.<sup>3</sup>*

The camps provide an opportunity for students from countries such as Serbia, Kosovo, Albania and Macedonia to work together. This is the pathway to reconciliation following the recent conflicts in the region. The participants learn hands on skills while also building important bonds cross-culturally.

### Kikino House

The Fellow visited the Kikino House to look at wall paintings and assess the house as a potential site for future projects. The wall paintings were different in style to those at the Skenduli and Zekate Houses. The wall paintings at Kikino featured a military procession, birds and flowers. They were located on an exterior wall of the balcony. Paintings on the interior, such as those in the bridal rooms of Skenduli and Zakate, were not evident. These may have been overpainted or may not have existed initially. Furthermore, there were other architectural details that differed such as decorative elements around and above doorways.



*Kikino House Exterior.*

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<sup>3</sup> Cultural Heritage without Borders, 'Who we are,' 2015, viewed 26 February 2015 <<http://chwb.org>>.

## 6. THE INTERNATIONAL EXPERIENCE

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Top: Wall paintings on the Kikino House balcony.  
Bottom: Exterior paintings at Kikino House.



## 7. KNOWLEDGE TRANSFER: APPLYING THE OUTCOMES

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### Presentation - International

A round table presentation on the project was made by the Fellow at Babemeto House in Gjirokastra, Albania on 27 September 2014. This promoted the skills and work undertaken and resulted in other Albanian projects being suggested. The Fellow and AiP were then invited to undertake documentation on the wall paintings at the Kikino House in May 2015. Following recommendations in the Condition Report, the Fellow has been approached to undertake consolidation of the exterior wall at Skenduli House. The outcome was that the importance of conservation documentation was highlighted and the project has shown that international volunteers can assist with this work as local organisations do not have the resources to carry it out.

### Presentation – Local

A presentation to the Victoria Division of the Australian Institute for the Conservation of Cultural Material will take place at the University of Melbourne, aimed at student members. The aim is to educate students of international opportunities in conservation projects. The benefits of international projects such as new ways of learning and seeing, working within a different cultural framework and also the problems associated with these opportunities. For example, projects not meeting expectations, or not going as planned, or being executed differently than in Australia. The presentation will take place in late 2015 or early 2016.

The Fellow will apply to present a poster of the project undertaken at Skenduli House at the AICCM National Conference, 4-6 November 2015.

### Student Internship

The Fellow puts forward the idea of students undertaking an internship on one of the AiP projects. The aim is to develop conservation skills in students. With funding from the University, such as the Travel Scholarship, FEE-HELP, and through organisations such as Ian Potter Foundation Artist Grant, international internships will be more viable.

### Graduate Internship / Fellowship

The Fellow put forward the idea of graduates undertaking internships on one of the AiP projects. The aims would be to further the skills of conservation graduates. This would be aimed at conservation graduates who would like hands-on experience that cannot be obtained in Australia and who would like leadership roles on conservation projects. Australian Volunteers International (AVI) may also be an organisation interested in participating in enabling partnerships whether internationally or within Australia.

### Adventures in Preservation Program in Australia

The Fellow will conduct preliminary research into undertaking a hands-on preservation program to be held in Australia, timing to be determined. The goal would be for the project to be supervised by conservators and would focus on a project that relies on volunteers for its completion. The aim would be to involve a combination of professionals/graduates/students. The tasks involved would be broken down according to skill levels.

## 8. RECOMMENDATIONS

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### AICCM

AICCM training: for professionals in 3D laser scanning

In a published paper (O'Connell et al, 'Waringarri Aboriginal Arts: Rethinking practices in conservation documentation through assessing the needs of a community arts centre,' AICCM Bulletin, Vol 34, 2014) the Fellow recommended the creation of an Indigenous Specialist Interest Group for the AICCM Special Interest Group. The Fellow would reiterate this recommendation and also include an active restoration workshop to promote work between Indigenous art centres and conservators. This could provide practical training for emerging conservation professionals. Groups such as ANKAA are already holding art centre workers training in co-ordination with the University of Melbourne. A program with an organisation such as AiP could lead to funding and involve volunteers from outside the conservation industry. A 3D laser-scanning project could be beneficial to documentation of historic sites such as rock art sites.

### AICCM and the Angels Project

The Fellow suggests organising one-day or smaller projects that involve conservators and heritage museums or collections. The experience in Gjirrokastër reinforced the idea that student conservators or emerging professionals could develop skills and networks while assisting on community based projects.

In 2013, the Fellow attended the AIC General Meeting in Indianapolis, USA. At the end of the annual meeting, the Fellow volunteered on the 'Angels' Project.<sup>1</sup> This involved attendees at the conference to volunteer on the last day to undertake preservation at an historical museum in Indiana County. The Angels Project assists an organisation, such as a community museum, with preservation for one day. The project runs once a year after the AIC Annual Meeting. The group was made up of conservators, both students and professionals, from a range of specialisations.

The Angels Project worked for a number of reasons:

- It paired up emerging conservators with professional conservators
- It provided hands on experience to a number of conservators despite their specialisation
- It met the needs of an organisation in preservation assistance.

This model could be introduced at the AICCM National Conference held every two years in Australia.

### Adventures in Preservation

The AiP model of volunteer preservation holidays could be used in Australia. A program would promote tourism and provide further opportunities for work for local conservators as consultants and leaders of the programs. Beneficiaries could be industry such as National Trust of Australia who has art collections and sites that may require conservation work.

### 3D Laser Scanning of Rock Art

The Fellow suggests that the area that 3D laser scanning may be most beneficial in Australia is in the context of Aboriginal rock art sites. The laser scanner used on this project by SAM is portable, works in any light source (or without a light source), and could provide a viable method of recording the paintings.

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<sup>1</sup> Jennifer O'Connell, AIC Angels Project, viewed 16 March 2015, <<https://travellingconservator.com/2015/03/04/aic-angels-project/>>.

## 8. RECOMMENDATIONS

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### **Further Development / Research into 3D Laser Scanning**

To ensure that the findings of this report are fully incorporated into Australian conservation practice, the Fellow recommends further research and development of these concepts be conducted. This could be done by doctorate research and / or by ensuring that additional international collaboration is organised and maintained on a regular basis.



## 9. REFERENCES

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### Journal Article

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### Newsletter Article

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## 10. ATTACHMENTS

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### **Skenduli House Conservation Report**

Available on the ISS Institute website: <http://www.issinstitute.org.au/wp-content/media/2015/11/Appendix-1-Skenduli-House-Report-050915.pdf>



