

Godden Mackay Logan

Heritage Consultants



DONALD HORNE INSTITUTE
FOR CULTURAL HERITAGE



Heritage Trades and Professional Training Project

Final Report

Report prepared for Heritage Victoria on behalf of
Heritage Chairs and Officials of Australia and New Zealand
September 2010

Report Register

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Executive Summary

Project Background

Heritage Victoria, on behalf of the Heritage Chairs and Officials of Australia and New Zealand (HCOANZ) commissioned *Heritages Trades and Professional Training* project to identify and address perceived gaps in professional historic heritage and traditional trades training in Australia and New Zealand. Funding to support this project was provided by the Australian Government Department of Sustainability, Environment, Water, Population and Communities. The project was undertaken by a team from Godden Mackay Logan Pty Ltd Heritage Consultants, the Archaeology Program at La Trobe University and the Donald Horne Institute for Cultural Heritage at the University of Canberra, assisted by Dr Jennie Harre Hindmarsh and James R Lynch, QSM.

The project documented and evaluated existing professional heritage and trades training and assessed community and industry requirements by undertaking a literature review, an industry wide audit of training opportunities, and a skills needs analysis based on surveys and an industry experts workshop. Analyses of the gaps, trends and issues arising from the data lead into some clear findings about looming skills shortages and proposals for action that can be taken by the Heritage Chairs of Australia and New Zealand.

Key Findings

The project identified that:

- there is an aging demographic of practitioners and lack of younger (under 30 and 30–45) practitioners coming into the industry;
- the level of training for practitioners entering the industry is largely seen as inadequate with an evident disconnect between what the industry wants, and what training providers are teaching;
- a high rate of training is received on-the-job and therefore without formal qualification or compliance, the standard of this training can not be qualified;
- much formal training was received over 20 years ago;
- offerings for training programs are not evenly distributed throughout Australia;
- qualified specialist heritage trade skills are rare; and
- many attempts to launch curricula in professional and trades training have failed due to funding and low interest.

The project results also demonstrated the need for:

- a co-ordinated National approach to professional heritage and trades training;
- an overarching policy on heritage training;
- industry benchmarks for education and training outcomes;
- high quality resources on best practice heritage management;
- adequate research and development including ongoing data collection;
- appropriate models for training in various sectors and at different career stages; and

- quality standards and mechanisms for their enforcement.

Based on the findings of the research, specific and general recommendations were made for both the HCOANZ to consider and for the wider heritage industry.

Recommendations

The project recommends that HCOANZ:

- adopt of a policy for heritage training and education in Australia and New Zealand;
- adopt a support and advocacy role in promoting accreditation for heritage training and education including the formation of a heritage training and education accreditation taskforce;
- promote co-ordination between heritage education and training providers in Australia and New Zealand;
- develop a process for recognition of 'on the job' training;
- foster a research agenda covering: the relative size of the heritage industry in Australasia, data on heritage building stock and place types, data on the demand for skills for heritage works, identified training and skills needs in the heritage sector, promotion of opportunities for interdisciplinary cross fertilisation in research, training and practice;
- support consistent statutory approval and compliance practice among heritage regulators, at all levels of government across Australia and New Zealand; and
- support consistent practice among heritage regulators which makes grant funding for works on heritage buildings and places conditional on use of professionals and tradespeople with relevant specialist qualifications and/or experience who can demonstrate appropriate specialist skill levels.

The report also provides the following general recommendations:

- Professional/trade/training organisations need to respond to the sporadic or rolling need cycle of the heritage industry.
- Professional/trade/training organisations should be encouraged to develop professional development courses provided on a not-for-profit basis.
- Government heritage agencies should lead by example in providing professional development staff training and in the recognition of expert, well trained staff.
- A priority for heritage related research should be the maintenance of traditional trades practices as an issue of intangible heritage conservation, as highlighted in the UNESCO *Convention for the Protection of Intangible Cultural Heritage*.
- Heritage education and training providers should form their own liaison group to promote dialogue and co-ordination between heritage education and training providers across Australia and New Zealand.

1.0 Introduction

1.1 Project Background

Heritage Victoria, on behalf of the Heritage Chairs and Officials of Australia and New Zealand (HCOANZ) has commissioned this project to identify and address perceived gaps in professional historic heritage and traditional trades training in Australia and New Zealand. Funding to support this project was provided by the Australian Government Department of Sustainability, Environment, Water, Population and Communities.

The project documented and evaluated existing professional heritage and trades training and assessed community and industry requirements. Organisations and individuals involved in historic heritage in Australia and New Zealand were invited to participate in online surveys and additional consultation occurred with a number of stakeholders.

1.2 Project Genesis

A series of meetings and workshops were held between 2003 and 2007 to provide the context for this project. The early focus of the evolving project was primarily concerned with heritage trades, identifying training opportunities as a response to the perceived lack of qualified tradespeople, however, concerns were also raised at this time about professional heritage training. In 2009, Heritage Victoria, on behalf of HCOANZ, formally established the project with an expanded scope, which included professional heritage training.

1.3 Project Team

The project was undertaken by a collaborative team from Godden Mackay Logan Pty Ltd Heritage Consultants (GML), the Archaeology Program at La Trobe University and the Donald Horne Institute for Cultural Heritage at the University of Canberra. The representatives include: from GML, Professor Richard Mackay, AM and Sheridan Burke, Partners and Amy Guthrie, Heritage Consultant; from the Archaeology Program at La Trobe University, Dr Anita Smith, Research Fellow; and from the Donald Horne Institute for Cultural Heritage at the University of Canberra, Dr Tracy Ireland, Director.

The team was assisted for the New Zealand components of this project (Audit and Skills Needs Analysis) by Dr Jennie Harre Hindmarsh, Independent Consultant and James R Lynch, QSM.

1.4 Report Outline

In brief, the report is set out as follows:

Section 1.0—background to the project;

Section 2.0—summary of a review of relevant literature;

Section 3.0—outline of the results of the audit of current training opportunities in Australia and New Zealand including those offered at Universities, Technical And Further Education (TAFE) and Polytechnic institutions and other training providers;

Section 4.0—outline of the outcomes of the Skills Needs Analysis including the results of the initial survey and subsequent data analysis; and

Section 5.0—outline of the results from two supplementary surveys undertaken to address specific concerns about heritage trades.

Section 6.0—a Gap Analysis based on the results of the Literature Review, Audit and Skills Needs Analysis—identifying gaps in the industry.

Section 7.0—findings and recommendations of the project, including an indicative heritage training policy for consideration by HCOANZ.

1.5 Associated Data

In addition to the Interim Draft Report, the following associated data for the project is attached:

- a summary of each Type of Training identified in the project is attached at Appendix A;
- a table outlining the literature reviewed is attached at Appendix B;
- the full web-ready Audit Database (in Microsoft Excel format) is attached at Appendix C; and
- the raw survey data (in both Microsoft Excel and PDF Format) is attached at Appendix D.

1.6 Project Limitations

The scope of this project was limited to the analysis of historic heritage training in Australia and New Zealand and did not include analysis of Indigenous or natural heritage training opportunities.

The survey undertaken for the Skills Needs Analysis was only available to those participants who were contactable via heritage networks, via colleagues and through membership of several professional bodies including Australia ICOMOS.

1.7 Acknowledgments

The project team acknowledges the patience, support and guidance provided by the Steering Committee: Jim Gard'ner (Heritage Victoria), Leanne Handreck (Department of Sustainability, Environment, Water, Populations and Communities (DSEWPaC)), Elisha Long (Heritage Branch, NSW Department of Planning) and Amanda Mulligan (Heritage Victoria). The assistance of the following people is also acknowledged:

- Jim Gard'ner, Executive Director, Amanda Mulligan and Jennifer Dawson—Heritage Victoria.
- Elisha Long, Technical Advice Officer, Heritage Branch, NSW Department of Planning.
- Australian Government Department of Sustainability, Environment, Water, Populations and Communities.
- David West, Executive Director, International Conservation Services.
- Susan Macdonald, Head of Field Projects, Getty Conservation Institute, Los Angeles.
- Chris Johnston, Director/Principal Consultant, Context.
- David Young, OAM, Heritage Consultant.
- Mark Goodchild, Master Builders Association.
- Bruce Chapman and Ann Neill, New Zealand Historic Places Trust.
- Survey respondents and other interested parties who assisted with data gathering.
- Members of the NSW Technical Advisory Group (TAG).
- Members of the Association for Preservation Technology (APT) Australia Chapter.

- Members of State heritage agencies, professional organisations and heritage networks who assisted in the distribution of survey notices.
- Participants in the 'Expert Workshop' held in Melbourne on 26 March 2010:
 - Jim Gard'ner, Executive Director, Heritage Victoria (Project Steering Committee)
 - Leanne Handreck, DSEWPaC (via telephone) (Project Steering Committee)
 - Elisha Long, Heritage Officer, Heritage Branch, NSW Department of Planning (Project Steering Committee)
 - Amanda Mulligan, Acting Hearings Officer, Heritage Victoria (Project Steering Committee)
 - Jacqui Goddard, Department of Environment, Climate Change and Water, NSW (DECCW)
 - Peter Lovell, Director, Lovell Chen Architects and Heritage Consultants
 - Donald Ellsmore, Heritage Consultant
 - Chris Johnston, Director/Principal Consultant, Context
 - David Young, OAM, Heritage Consultant
 - Grahame Crocket, DSEWPaC
 - Simon Davies, Contract Management Systems (CMS)
 - Robert Sands, Director, Robert Sands Pty Ltd
 - Mark Goodchild, Master Builders Association (MBA)
 - Greg Owen, Director, Period Restoration Services
 - David West, Executive Director, International Conservation Services
 - Paul Roser, National Trust of Australia (Victoria)

Apologies: Alan Croker, Amy Chan, Megan McDougall, David Scanell and Stuart McLennan.

2.0 Literature Review Summary

2.1 The Literature Review

The project brief for the Heritage Trades and Professional Training Project stipulated that a literature review be undertaken as the first stage of the project. This included the review of a large set of information provided to the project team and the identification and analysis of other relevant literature. The purpose of the literature review was to provide the background to the audit and skills needs analysis tasks and provide a basis for useful project methodologies and target areas for further investigation.

Much of the material provided to the project team was based in the United Kingdom (UK) heritage sector, which has undertaken successful initiatives to rectify the gap in heritage training in the UK. The methodologies and findings in this literature informed the skills needs analysis component of this project, including data gathering methods.

The points following in Section 2.2 were raised as general themes and repeated throughout a large majority of the literature. Specific points about professional heritage training are listed in Section 2.3 and those regarding heritage trades training are listed in Section 2.4 below. A brief summary and bibliographic information of all sources reviewed for this project is provided at Appendix B.

2.2 General Points

- The need for a National Heritage Training Strategy is highlighted repeatedly—the ad-hoc development of state strategies and initiatives has failed to rectify the nation-wide problem.
- There is a wide push for professional accreditation in the industry; this is also recommended to be established by the professions (eg: engineers, archaeologists, tradespeople etc), rather than the legislators of the industry. Accreditation of practitioners may also increase the attractiveness of the industry to newcomers.
- Some professionals feel their formal education did not adequately prepare them for working in the field.
- Many practices find it hard to locate qualified professionals when recruiting staff. Many practices also prefer to hire already qualified staff rather than undertake in-house training or fund further education.
- There is an identified need to increase demand for conservation training through increasing the awareness of opportunities to the industry, place owners and place managers.
- The literature points to inadequate access to professional support for those in the industry, and those interested in heritage.
- It is recognised that many regional areas are missing out on adequate training, and there is a need for the development and support of training initiatives in these areas.
- Many of the available training opportunities are poorly targeted and suffer a low response rate from students.
- Current standards in conservation practice are low compared to other countries—Australia is regarded for values-based practice, but not physical conservation.
- Many institutions are offering somewhat mis-focussed curricula, which are not directly linked to industry needs (in both professional and heritage trades training)—further research needs to be

undertaken into exactly what the industry is looking for in a heritage professional and/or heritage tradesperson.

- The gap in the industry could be filled by the establishment of specialised heritage training institutions for both professional and heritage trades training.
- The current heritage industry is inward/insular, and should be talking to other sectors about useful collaborative opportunities.
- The importance of cross-institutional and cross-curricula educational opportunities is highlighted throughout the literature.
- Recommendations for 'taster courses' which could be implemented to show non-industry professionals what the heritage industry has to offer are outlined throughout the literature.
- The literature identifies that there are notable shortages in lack of experience and practical knowledge of graduates.
- There are strong recommendations for the heritage sector to self-educate.
- Linking of accreditation to the development application process (only using accredited practitioners to undertake work).

2.3 Professional Heritage Training

- Wide assessment of current curricula needs to be undertaken. Curricula should be assessed often and by professional advisory panels of experienced industry representatives to ensure they are appropriately focussed.
- Heritage related courses are currently primarily offered at a postgraduate level; enforcing the view that the industry is for mid-career professionals, not undergraduates.
- Lack of interest in the university sector may be due to the poor reputation of the heritage sector and lack of awareness about career opportunities in the industry.
- There is a perceived lack of practical learning experiences for students including fieldwork, lab time and other hands-on activities in universities.
- The workforce for teaching and mentoring is aging and retiring—undergraduate education may be the only answer to a new generation of heritage professionals.

2.4 Heritage Trades Training

- Students have a lack of understanding of the behaviour and use of traditional materials and the use of traditional tools and techniques.
- Trade education needs to be focussed on the people who learn the trades, many of whom do not respond to learning in the same way as academics. Videos/DVD and hands-on practical learning are much better suited for this sector.
- The literature points to a lack of accessible and useable information on necessary traditional skills and techniques.

- The current workforce in heritage trades is small and aging rapidly, with very few available opportunities to pass on their vast knowledge and skills.
- Apprentices do not receive much opportunity for training in heritage trades, only 2% of heritage work is undertaken by apprentices.
- As most practitioners have a good skill base (around 60–70% of the necessary skills), training should be focussed on gap filling rather than whole new courses.
- The literature supports the possible implementation of a 'Bond System' for work on heritage buildings, with those who do inappropriate work on heritage buildings being prosecuted.
- The use of derelict unlisted and not-likely-to-be listed buildings to be used for training students is recommended.
- Skilled tradespeople who are retiring may be able to volunteer their time for training.
- Linking heritage trades training to grants—with priority given to grant proposals which involve training opportunities.
- A flurry of interest from the government in trades training after the Newcastle earthquake was noted. This also highlighted the lack of qualified practitioners in the industry.
- The literature notes that heritage work is intermittent and it is difficult for practitioners to commit solely to conservation work—any increase in practitioners (new) also exacerbates this situation.
- Linking the requirement for qualified tradespeople to the award of government projects is recommended—this could be through a pre-qualified (or accredited) tenderers list. This would also link to the award of grants.
- A centralised training facility of a high standard, to possibly attract off-shore participants, is recommended.
- A review of national trade competencies is recommended, as they are well below the standards to which many historic buildings were constructed.

3.0 Audit of Education and Training Opportunities in Historic Cultural Heritage Conservation and Management

3.1 Introduction—About the Audit

The aim of the Heritage Trades and Professional Training Project is to identify training opportunities and skills gaps within heritage conservation in Australia and Aotearoa/New Zealand, and to recommend policy responses or actions to address the identified skills gaps. As set out in Section 1.0, the scope of the project is limited to historic (non-Indigenous and non-natural) cultural heritage. The brief for the project required a scan of current tertiary training in the heritage sector including (but not necessarily limited to) universities, institutes of TAFE, technical colleges, polytechnics and other bodies including, for instance, the International Specialised Skills Institute (ISSI). The trades, crafts and professional disciplines set out in the project brief to be covered by the training audit are shown in Table 3.1.

Table 3.1 Trades, craft and professional disciplines covered by the audit.

Trades and Crafts	Professional Disciplines
Aboriculture	Architecture
Bricklaying, pointing and repair	Architectural history
Carpentry, joinery, cabinet work and repair	Building conservation
Glass repair	Engineering
Horticulture	Geography
Masonry, pointing and repair	Historical archaeology
Metal repair	History
Painting and other decorative finishes	Interior finish analysis
Plaster and render	Landscape architecture
Roof plumbing	Maritime archaeology
Rood tiling	Materials conservation
Solid plaster	Town and country/urban planning
Maori building craft (briefly included, see 3.2.6)	

The audit of Australian and Aotearoa/New Zealand training and education opportunities was undertaken through web-based searches and a limited amount of follow up research and telephone enquiries. The audit has been presented as a web-ready database (to be searchable online) identifying courses and locations, and the degree of heritage focus of each. Courses where heritage issues are specifically dealt with were then further defined in terms of the key skill and knowledge areas that they address, following the keyword breakdown (Table 4.1) that was also used in the web-based survey undertaken for the Skills Needs Analysis (Section 4.0). The audit data and the skills needs data are further considered in Section 6.0, to determine gaps in training and other trends and issues emerging from these two data sets.

3.2 Issues

3.2.1 Limitations of the Methodology

The audit was compiled as accurately as possible, but owing to the nature of key word searches and the variable level of detail that is published about the exact content of courses, there will undoubtedly be some inaccuracy. Courses which are 'one offs', or not run on a recurrent basis, may not have been captured by the audit. This also illustrates the fact that many courses may be missed owing to difficulty in locating them. It would be a worthwhile exercise to undertake historical research into the nature and success of such courses, to assess how, or whether, the industry has responded to training needs in the historical context, and to build up a longer term picture of the impacts and success of various training initiatives.

3.2.2 Trades

The audit identified the TAFE sector, institutes of technology, polytechnics and other forms of trade training such as specialist short courses, covering all trade areas set out in the brief. It was discovered that many of these course only very slightly touched on traditional trades. As stated above, many of the specialist short courses are not run on a recurrent basis and therefore were difficult to collate in the audit. Concerns have been expressed to the project team that major gaps in heritage trades training and physical conservation remain unaddressed, including technical analysis and professional skills such as building diagnosis and causation analysis; works specification; scheduling and documentation skills; monitoring skills; and physical conservation skills (by material).

3.2.3 University Programs

The audit identified university programs at undergraduate and postgraduate levels which covered discipline, skill and knowledge areas relevant to historic cultural heritage management, including the areas identified in the brief. The audit did not include opportunities to undertake research degrees, although these are an important aspect of growing knowledge, theory and practice in cultural heritage. Many of the universities that offer undergraduate and postgraduate courses in heritage related areas also offer opportunities for postgraduate research. Funding for such research is an issue outside the scope of this report; however, it is important to note the vital and sustaining relationship between heritage and conservation research and successful teaching and practice in these fields.

The majority of the discipline based university programs identified do not contain specific cultural heritage components, with the exception of archaeological programs. Archaeology programs, including historical and maritime archaeology programs, often, but not always, contain components dealing with the cultural heritage management context of archaeological research and site management. Other discipline areas which offer courses with a heritage focus include postgraduate courses in architecture and undergraduate and postgraduate courses in urban planning, geography and history.

A number of degree courses at undergraduate level do contain cultural heritage focused units, and this number appears to be expanding. It has been the usual practice in heritage conservation work in Australia for practitioners to train in a discipline and then focus on a heritage specialisation through postgraduate training (in Australia or overseas), on-the-job training, or self-directed learning. This pattern appears to be changing with the growing number of specialist and more professionally oriented undergraduate and postgraduate coursework degrees which have become a feature of the university sector over the last 20 years.

Another growing feature of university education is distance education and web-based learning. Multimedia and web-based technologies are rapidly changing the nature of tertiary education and open a host of possibilities for heritage training along with all other forms of education and training. A number of the university based courses identified in the audit are offered through distance education, which widens their geographical area of accessibility beyond their location, as shown in the audit database.

3.2.4 Professional Development Courses

Only approximately 20 of the 291 Australian and none of the Aotearoa/New Zealand (NZ) training opportunities captured by the audit fall into the category of professional development short courses.

Short courses captured by the data audit cover the following topics:

- World Heritage: Conserving Cultural Heritage Values
- Best Practice in Managing Heritage Places
- Conservation of Traditional Buildings
- Cultural Heritage Management
- Conservation Field School
- Introductory Archaeological Geophysics
- Human Osteology
- Urban Rural and Regional Planning
- New Policy Directions—Heritage Places
- Intangible Heritage
- World Heritage Management
- Sustainable Cultural Tourism
- Cultural Landscapes
- Heritage Interpretation
- Reading and Interpreting Maps
- Forest Soil and Water Protection: Working with Cultural Heritage Requirements
- Development Approvals: The Heritage Perspective
- Australian Institute of Maritime Archaeology: Short Courses on Maritime Heritage
- Various short courses in construction techniques (including tuckpointing) at Holmesglen TAFE
- Various short courses run by the ISSI, (none scheduled currently).

In addition, the study team is aware that there are a range of other short courses, offered on a sporadic basis by heritage agencies and professional bodies, predominantly one day (but occasionally longer) seminars, workshops and training courses. These are run by a wider range of organisations. In any given year, there are around ten training and education opportunities in the heritage sector across Australia—and possibly more. Providers include heritage agencies and their advisory bodies such as the Technical Advisory Group (NSW) and Technical Advisory Committee (Victoria), the National Trusts, APT Australia Chapter, Australia ICOMOS, formal and informal professional groups, institutes or faculties or departments of universities and commercial providers.

The nature of such sporadic educational and training opportunities is that they can be highly flexible, organised quickly to reflect new needs, delivered in more than one location, and often delivered economically and efficiently owing to the contribution made by experienced professionals. However, there are also obstacles to such courses, including the cost and drain on resources of individuals involved (particularly speakers), challenges in logistics and publicity, limited national co-ordination and a lack of any framework for assessment of quality and effectiveness.

3.2.5 Quality and Content of the Identified Education and Training Opportunities

The audit contains no judgements on the quality, depth or content of the identified education and training programs in cultural heritage. As discussed in Section 2.0 of this report, no professional standards or accreditation relating to heritage conservation and management education and training currently exist in the Australasian context. In view of this, the data collected in the audit can only identify training and education opportunities on the basis of their published content, and can make no comment on how courses might reflect best practice standards (which is also an undefined concept). The lack of established standards or accreditation framework affects not only the audit of training opportunities but also the skills needs survey in the following section. As there is currently no defined set of core skills or knowledge areas prescribed for the various sectors of heritage practice, the significance of the identified gaps in training (discussed in Section 5.0) can only be analysed in an impressionistic manner.

3.2.6 Maori Building Craft

The project consultants from Aotearoa/New Zealand considered and advised the project team that the exclusion of Maori heritage building craft was and is a serious flaw in the project brief (which excluded 'Indigenous heritage'). Under the *Treaty of Waitangi*, New Zealand agencies have a duty to address Maori priorities and issues in any exercise of this nature. Maori heritage buildings, archaeological and heritage sites are integral to the Aotearoa/New Zealand national identity and are ubiquitous in society.

Maori arts and decoration, such as *whakairo* (carving), *tukutuku* (woven panels) and *kowhaiwhai* (patterns), as well as *tikanga* (lore) are integral to Maori building. In addition, Maori building has its own distinctive traditional style and techniques.

After discussion with the project team it was decided to include at least some of the major training opportunities available in this area to ensure it is given due attention and highlighted for future research. However, it should be noted that this is a superficial and inadequate treatment as there are many local carving schools and programs which will not be located by the survey methodology used and could not be located using available time and resources. A proper search of this area would need a person familiar with Maori building and design, *te reo* (language) and a much broader consultation and investigation process—which would be an extensive project.

3.3 Results of the Audit

3.3.1 Key Professional Discipline Areas—General Findings

Architecture—architecture degrees of various levels are offered in all states and territories in Australia, with three courses in Aotearoa/New Zealand, and one degree in Building Science. Few offer heritage focused units although many offer units in the history of architecture and/or the history of architectural theory.

Landscape Architecture—landscape architecture is offered in all states and territories except Tasmania and the Northern Territory and is offered at two institutions within Aotearoa/New Zealand. A heritage or history focus is featured in a small number of courses.

Interior Architecture—interior architecture is taught in all states and territories except Tasmania and the Northern Territory and is not taught in Aotearoa/New Zealand. No heritage focused options in this discipline are currently known, although students of the new interior architecture degree at the University of Canberra can take electives in heritage related units.

Engineering—engineering degrees are offered in all states and territories of Australia and also in Aotearoa/New Zealand (although NZ courses were not audited). No specialist courses in heritage engineering are known in Australia or Aotearoa/New Zealand; however, Engineers Australia is currently establishing a recognised area of practice called ‘Heritage and Conservation Engineering’—‘to provide accreditation for professional engineers competent in that field, and for those where heritage and conservation engineering is a significant area of their professional practice’.¹

History—history degrees are offered in all states and territories of Australia but only as major/minor fields of study in Aotearoa/New Zealand. Several can be combined with heritage focused units at an undergraduate and postgraduate level.

Geography—geography courses are available in all states and territories of Australia except the Northern Territory and are offered as part of an arts or science degree in Aotearoa/New Zealand. Courses often include heritage related units as well as access to GIS training.

Archaeology (historical and maritime)—archaeology degrees are offered in all states of Australia except Tasmania and the Northern Territory and is taught as part of an Anthropology degree in Aotearoa/New Zealand, and most contain some components dealing with cultural heritage. Maritime archaeology is taught in Western Australia (UWA), South Australia (Flinders) and in far North Queensland (James Cook University) and is not taught in Aotearoa/New Zealand. Historical archaeology is taught in all states of Australia except Tasmania and the Northern Territory.

Planning—planning courses, like many of the other disciplines discussed, can vary widely in their focus, varying from development studies and urban design to environmental management issues. Planning courses at diploma, undergraduate and postgraduate levels are offered in all states and territories of Australia and in Aotearoa/New Zealand. Several planning courses offer the opportunity for a heritage related focus.

Materials Conservation—is taught only at the University of Melbourne as a postgraduate diploma or masters degree and at the University of Canberra as an undergraduate degree. Heritage Materials Science is taught at the Victoria University of Wellington in Aotearoa/New Zealand.

Sub-disciplines

Architectural History—is taught as part of most architecture courses and as part of specialist heritage courses at the University of Canberra (undergraduate), Deakin University and Melbourne University (post-graduate).

Building Conservation—is taught as part of the undergraduate cultural heritage degree and as a short course at the University of Canberra; as part of a postgraduate cultural heritage course and a short course at Deakin University, and as part of the postgraduate architectural conservation course at the University of Melbourne.

Interior Finish Analysis—no training opportunities in this area were captured by the audit.

3.3.2 The Shape of Heritage Related Education and Training in the University Sector

In general terms two types of specialist heritage related education are available in the Australian and Aotearoa/New Zealand university sectors. The term 'specialist heritage' is used to denote courses where the prime focus is heritage related skill and knowledge areas, as distinct from courses which have a traditional disciplinary focus such as archaeology or history. The first type is heritage degrees which cover a range of traditional disciplines and promote heritage as the key skill and knowledge area. The second type also promote heritage as the key skill and knowledge area but focus study on one form of cultural heritage conservation practice—archaeology, materials conservation or architectural conservation.

These highly specialised heritage courses have a reasonably wide geographic spread being located in the Australian Capital Territory, Victoria, regional New South Wales, Western Australia, and Adelaide in South Australia.

Specialist Heritage Degrees with a Broad Focus

- Bachelor of Cultural Heritage, University of Canberra, Australian Capital territory (ACT)
- Bachelor of Applied Science (Parks, Recreation and Heritage), Charles Sturt University, New South Wales (NSW)
- Master in Liberal Arts (Cultural and Environmental Heritage), Australian National University (as well as diploma and certificate courses), ACT
- Master of Applied Heritage Studies, Curtin University, Western Australia (WA)
- Master of Cultural Heritage, Deakin University (as well as diploma and certificate courses), Victoria (VIC)
- Master of Arts (Heritage Studies), University of New England, NSW
- Bachelor to Master of Arts in Museums and Cultural Heritage, University of Auckland, NZ
- Museum and Heritage Studies, Victoria University of Wellington, NZ
- The Bachelor of Arts (BA) in Anthropology, University of Auckland, NZ

Specialist Heritage Degrees with a Specific Discipline Focus

- Bachelor of Cultural Heritage Conservation (Materials Conservation), University of Canberra, ACT
- Diploma to Master of Science in Heritage Materials Science, Victoria University of Wellington, NZ
- Heritage Tourism Management (offered in 2010), University of Waikato, NZ
- Master in Cultural Heritage Management (archaeological focus), Flinders University, South Australia (SA)
- Graduate Diploma in Applied History and Heritage Studies, Flinders University, SA

- Master of Heritage Conservation (architecture), University of Sydney, NSW
- Master of Cultural Material Conservation, University of Melbourne (as well as postgraduate diploma), VIC
- Postgraduate Diploma in Planning and Design (Architectural History and Conservation), University of Melbourne, VIC
- Graduate Diploma Planning and Design (Architectural History and Conservation), University of Melbourne, VIC

3.4 Previous Heritage Trades Training Initiatives

There have been a number of previous Australasian programs and initiatives aimed at providing and encouraging heritage training. These have generally addressed heritage trades and they have been focused on the east coast of Australia. A brief outline summary / chronology of these initiatives follows.ⁱⁱ

3.4.1 Training and Employment Opportunities for Young People in Heritage Restoration and Construction

This project was instigated following the Newcastle Earthquake in 1989. It was funded by a NSW Heritage Assistance Program grant to National Trust of Australia (NSW) (NT). The aim of the project was to investigate the possibility of re-introducing systematic training in the traditional building skills. The project was conducted under the guidance of a special Industry Steering Committee.

This project identified a heritage skills profile requirement across six heritage trades areas:

- Bricklaying;
- Carpentry and Joinery;
- Painting and Decorating;
- Stonemasonry;
- Plastering; and
- Roof plumbing.

The final report from this project recommended the development of appropriate heritage training courses at post-trade level. It further recommended that these courses be delivered on the job and to qualified tradesmen.

As a result of this project, 60 heritage training modules were created. These were accredited by the NSW Vocational Education and Training Advisory Board in August 1997.

3.4.2 1996 Dept of Education and Training funded a feasibility study on heritage training

Sydney Training and Employment established a group training company called 'Heritage Training Enterprises' in 1996, in the wake of the 'Training and Employment Opportunities for Young People in Heritage Restoration and Construction' project. It appears that this initiative did not proceed as far as delivery of any courses.

3.4.3 Heritage Trades Training 2000-2005 (post 1999 hailstorm)

This project had a similar stimulus to the Training and Employment Opportunities for Young People in Heritage Restoration and Construction' project, in that it arose as a response to a natural disaster; in this case the Sydney hailstorm of 1999. the project covered the same skills as Training and Employment Opportunities for Young People in Heritage Restoration and Construction' project namely:

- Bricklaying;
- Carpentry and Joinery;
- Painting and Decorating;
- Stonemasonry;
- Plastering; and
- Roof plumbing.

It appears the project used much of the curriculum and course content from its predecessor. Sixty Heritage modules were developed and a number were offered through the TAFE system. However, many modules were never offered because of a lack of students. None of the modules are currently available, (even if there were enough students).

3.4.4 Heritage Office 2005 Workshop in Response to Productivity Commission Inquiry into Heritage

A workshop was arranged in 2005 as part of a coordinated Heritage Chairs and Officials response to the Australian Productivity Commission Inquiry into Heritage. The workshop agreed that there were skills deficits in both trades and professionals areas. Various regulatory, persuasive and incentive measures were suggested.

3.4.5 Master Builders Association consider setting up their own traditional trades program 2005/06.

On a number of occasions the Master Builders Association of Australia (MBA) has endeavoured to establish their own heritage trades courses, commencing with plastering. Unfortunately these initiatives have not succeeded owing to insufficient demand from potential attendees.

3.4.6 2006—Opening of the Specialist Centre for Heritage Trades, Holmesglen TAFE

With much excitement, the Holmesglen TAFE established the Specialist Centre for Heritage Trades with support from Skills Victoria in 2006. Unfortunately, its funding was withdrawn in 2007 after less than 12 months in operation as the demand for its courses was insufficient to support the Centre and those courses which did run tended to have low numbers.ⁱⁱⁱ

3.4.7 2006–7 NT Group Training effort

In 2006 the then NSW Heritage Office provided seed funding to the National Trust of Australia (NSW) to investigate the possibility of a group training company for heritage skills. The investigation was completed but no funding could be found to establish the scheme.

3.4.8 2007 National Workshops on Professional and Trade Skills and Training

In 2007 a series of Australian workshops was presented by John Fidler, formerly of English Heritage. These workshops reviewed the UK experience and highlighted the need for 'demand' from regulators and funding bodies to stimulate heritage trades training.

3.5 Conclusions

In addition to the above highly specialised courses, the audit identified 68 training opportunities in the university sector in Australia and 16 in Aotearoa/New Zealand with a significant amount of heritage related content and around 190 undergraduate or postgraduate courses in relevant disciplines. Only 20 short course options were identified covering professional and trade skills and knowledge in Australia and considerably less in Aotearoa/New Zealand, which infers that, following tertiary training, relatively few options for professional development currently exist. However, the number of short courses needs to be considered in the context of the total numbers of professionals active in Australia. For instance there are around 360 members of Australia ICOMOS and a total of 456 people attempted the skills needs questionnaire discussed in the following section of the report. These issues will be addressed further in Section 6.0.

Although 33 courses of instruction were identified and recorded for Aotearoa/New Zealand there is in fact very little substantive or formal training available in the heritage building area (with the possible exception of Maori building and crafts as stated above). While the search time was limited, a wider search was unlikely to change the conclusions or find any major additional training opportunities, with the possible exception of Maori building. Most of the identified existing courses do not have a core focus on heritage buildings but offer this as a peripheral subject or elective option. Many are so minor in their treatment of heritage building that without more detailed investigation there is some doubt that they should be included at all in a list of substantive training opportunities.

It was concluded that most non-Maori heritage building skills and knowledge acquired by people from Aotearoa/New Zealand were acquired offshore, mostly in Australia or the UK. Heritage agencies such as the NZ Historic Places Trust and Department of Conservation use qualified heritage architects who typically have obtained their specialist qualification in the aforementioned countries, or are qualified in their discipline (eg architecture/archaeology/planning/historical research) and acquire heritage conservation knowledge on the job. These heritage advisers, especially architects, have their networks of skilled tradespeople—who have either acquired their skills by experience on the job or through working overseas, or are migrants with qualifications and experience gained overseas—who can work to very specific and quite tight building specifications and with specialist materials. The limited demand for these skills in New Zealand (a few hundred practitioners and few job opportunities) means it is not cost effective for training providers to offer a full range of courses. For skills and knowledge *specific* to built heritage in NZ and, in addition to relevant opportunities to train overseas, on-the-job and short courses and/or web-based learning are the most realistic modes of training delivery to meet priorities.

It is important to facilitate and promote collaboration both within the NZ heritage sector and its overseas counterparts, and between employing organisations, education agencies and training providers, to provide targeted training to meet identified priorities and develop ways to 'recognise' skills and knowledge acquired on-the-job and through informal training.

This recognition should extend to generic courses with relevance to built heritage, for example history courses, governance and management, interpretation, research and evaluation skills, etc.

Maori building crafts appear to be significantly different. There are many training opportunities available. Some, especially in *whakairo* (carving), have recognised qualifications, but there also appear to be many localised *iwi*, *whanau* and *marae* based carving and weaving schools which operate on a less formalised and institutional level (say, compared to *Te Puia* or the major *Wananga*). These would have their own local standing and credibility and would be appropriate to include in this type of survey. However, they are difficult to identify (seldom linked to websites) and difficult to assess whether or not they should be included.

It is the Maori traditional building crafts which are likely to have the most value in extending this exercise into further detailed identification of informal and formal training opportunities, and formalisation of existing and additional training opportunities. Maori building craft is an area that cannot be imported from overseas and is the most unique aspect of heritage building in New Zealand.

3.6 Endnotes

ⁱ Engineers Australia, Engineering Heritage,
<http://www.engineersaustralia.org.au/groups/engineering-heritage/registration/registration_home.cfm>,
consulted 10 December 2009.

ⁱⁱ Information provided by Elisha Long, Technical Advice Officer, Heritage Branch, NSW Department of Planning 15/6/2010.

ⁱⁱⁱ Pers.comm. Alexandra Mannell, 10/12/09.