Work-Integrated Learning in Maritime Archaeology: An Australian Approach

Mark Staniforth
Work-Integrated Learning in Maritime Archaeology: An Australian Approach

Mark Staniforth, Flinders University, South Australia, Australia

Abstract: In recent years the Maritime Archaeology Program (MAP) at Flinders University has developed an innovative work-integrated learning program, in association with industry partners that includes fieldwork opportunities and internships (work-placements). This is largely in response to suggestions from consultancy companies and government agencies about the lack of job-ready skills among maritime archaeology graduate students. This is a very flexible program that aims to provide students with opportunities of at least two weeks and up to 3 months to develop both fieldwork skills and more general work practices. This paper will argue that work-integrated learning assists the graduates to get a position and then helps them to do well in that job. Participating in daily work practices and experiencing fieldwork are seen as keys in producing work-ready graduates.

Keywords: Work-Integrated Learning, Internship, Fieldwork, Australia, Maritime Archaeology

Introduction

The Maritime Archaeology Program (MAP) in the Department of Archaeology at Flinders University is the largest sustained and only fully integrated program teaching maritime archaeology in Australia and, arguably, in the Asia-Pacific region. This is unlike the situation in Europe and North America where maritime archaeology is taught at both undergraduate and postgraduate level at quite a number of universities (Jasinski & Soreide 2008; Khalil 2008; Maarleveld & Auer 2008; Morozova & Zelenko 2008; Parham & Palma 2008; Ransley 2008; Stamirov 2008; Sturt 2008). This has also resulted in a more extensive discussion about education in maritime archaeology in recent years which will clearly be further expanded as a result of the bringing into force of the UNESCO Convention on the Protection of Underwater Cultural Heritage (2001) on 2 Jan 2009 (Pydyn & Flatman 2008; Radic Rossi et al 2008).

Origins of the Maritime Archaeology Program

The origins of the Maritime Archaeology Program at Flinders University in South Australia lie with the introduction of maritime archaeology topics within the recently established Bachelor of Archaeology degree in 1997. Since then all students studying archaeology have gained some exposure to, and developed an awareness of, the issues associated with maritime archaeology through lectures and tutorials from their 1st year. In subsequent years, the teaching of maritime archaeology grew to include two upper level (second and third year) topics and an undergraduate field school that allows students to specialise in maritime archaeology during their undergraduate degree (either Bachelor of Arts or Bachelor of Archaeology).
In 2002 MAP expanded to include a Graduate (coursework) Program in Maritime Archaeology which is now the largest and most successful program of its kind in the Asia-Pacific region. It has drawn students from over eleven countries including Australia, Canada, Holland, Japan, New Zealand, Netherlands, Luxembourg, South Africa, Sri Lanka, the Philippines, United Kingdom and United States of America. The Graduate Program is modular in design consisting of three awards – Graduate Certificate (GCMA = 6 months full-time equivalent), Diploma (GDMA = 12 months) and the Master of Maritime Archaeology (MMA = 18 months). This is designed to both meet the needs of students who already have a four year degree in archaeology or anthropology and wish to specialize in maritime archaeology, as well as those who come from a different academic background (such as history) and wish to move to a new career path. Students without an adequate archaeology background may be required to complete an extra 6 months of archaeology study.

Figure 1: Heritage Victoria’s boat *Trim* used during the 2008 Maritime Archaeology Field School at Portarlington, Victoria (Photo: Courtesy of the Maritime Archaeology Program, Flinders University)

**Educational Philosophy and approach of the Maritime Archaeology Program**

For more than a decade, MAP staff have developed and built a number of strategic educational partnerships and collaborations with government, museum and commercial maritime archaeology and underwater cultural heritage organizations that make significant contributions to student learning (Staniforth 2003, 2008a, 2008b and 2009). MAP is firmly built on a philosophy of bringing practising professionals into the teaching program in order to provide students with opportunities for active engagement with the maritime archaeological community. Furthermore these collaborations are specifically designed to help students to participate in high quality fieldwork and to gain work experience through jointly run field schools, fieldwork, internships and fieldwork practicums. We have worked with our educational partners to change the direction of teaching in maritime archaeology around the world from
a narrow particularistic focus to a more holistic approach firmly based on practical fieldwork-based training and work-integrated learning.

The fully integrated nature and diverse range of internal (on-campus in both ‘traditional’ and short course) modes as well as external (online) delivery modes caters to a wide variety of student needs and interests at a range of levels from undergraduate through graduate (coursework) to research postgraduate level. For example, in 2004 MAP entered into a Memorandum of Understanding (MOU) with the University of Ulster (Northern Ireland) to develop and teach an innovative program of distance education (online teaching) in maritime archaeology – this was the first program of its kind in the world. MAP together with our educational partners also provide innovative professional development opportunities through programs such as the ALA Fellowships program. Our hope is that the ALA Fellowships model will be adopted by other countries and organizations in the Asia-Pacific region as the basis for effective collaboration and co-operation in the teaching and training of maritime archaeologists. No other university maritime archaeology program in the world offers publication opportunities such as the Maritime Archaeology Monographs Series (MAMS) to both current students and past graduates. With the support of our partner organisations, MAP has developed an excellent reputation for producing job-ready graduates whose skills are firmly based on practical fieldwork-based training and work-integrated learning. As a result, MAP has become widely recognized at national and international level as outstanding in the field of teaching maritime archaeology.

MAP is firmly built on work-integrated learning and a philosophy that emphasises a collaborative approach to teaching involving significant input to the teaching program from maritime archaeologists who are working within the sub-discipline. As part of the MAP teaching program, maritime archaeology practitioners who work for government agencies, museums and consultancy companies regularly give lectures, seminars and demonstrations as well as participating in, and contributing to, fieldwork activities such as field schools and practicums. These people are acknowledged experts in the field of maritime archaeology and partner organisations within Australia include James Cook University (Queensland), the Commonwealth Department of the Environment, Heritage, Water Resources and the Arts, Tasmanian Parks and Wildlife Service, Tasmanian Museum and Art Gallery, Maritime Museum of Tasmania, South Australian Department of Environment and Heritage, South Australian Maritime Museum, New South Wales Heritage Office, Heritage Victoria, and the Western Australian Museum. Our overseas partners in the UK, USA and Asia-Pacific region include the Institute for Nautical Archaeology (INA), the University of Ulster, Asian Academy of Heritage Management (AAMH), UNESCO, South-Eastern Archaeological Research, Florida Bureau of Archaeological Research (FBAR), and the Lighthouse Archaeological Maritime Program (LAMP) in St Augustine, Florida.

Learning Field Methods: Maritime Archaeology Field Schools

All maritime archaeological fieldwork requires a team in order to achieve the goals. MAP aims to develop team work so that students and staff know they are part of a small, highly trained profession and this forms a tremendous ‘collegiate bond’. Field schools, and most other fieldwork activity, involves collaboration with, and input from, partners working in the field of maritime archaeology which helps students to learn about the practice of maritime archaeology in a work-operational environment. One requirement of the graduate program
in maritime archaeology is that all students must complete a two-week intensive maritime archaeology field school; this is also an optional topic for undergraduate students. The involvement of current 2nd year Masters students, alumni and PhD students in the field schools and practicums as team supervisors is seen as a valuable way to help them to develop their skills in demonstrating to, and supervising, students.

Since 2004 Flinders University has run five annual Maritime Archaeology Field Schools (two in Victoria, one in Tasmania and two in South Australia) always in association with at least one underwater cultural heritage agency partner. Support has also come from individuals and consultancy companies involved in maritime archaeology such as Cos Coroneos from Cosmos Archaeology and Ian Moffat of Ecophyte Technologies, who has regularly contributed to the teaching of geophysical survey techniques. Benefits to these partner organisations include being able to conduct person-intensive fieldwork such as excavation and the field schools are often structured to allow the students to generate data that is useful to the partner organisation such as relocating sites and generating up-to-date site plans.

Figure 2: Student Deploying the HYPASS Underwater Acoustic Position Fixing System during the 2002 Maritime Archaeology Field School at Port Victoria, South Australia (Photo: Courtesy of the Maritime Archaeology Program, Flinders University)
Field schools provide students with an introduction to the techniques of underwater survey, position fixing, mapping, photography (including video), recording, excavation and conservation. The first part of the topic (two days) consists of the Australian Institute for Maritime Archaeology (AIMA) and Nautical Archaeology Society (NAS) Part 1 Training program (Moran and Staniforth 1998). The remainder of the topic comprises practical exercises and associated lecture/seminars on research field methods and techniques. Assessment is comprised of two components: course participation, both in practicals and lectures, as continuous assessment (worth 50%) and site reports and student folders (worth 50%). All of the assessable work is due at the end of the field school and extensions are not normally granted. Maritime archaeology field school can be an extremely powerful learning experience because of the contextualization of the information using problem-based learning, which is a strategy that begins with a realistic problem, and the content is learnt in the context of the solution to that problem. It is normally characterized by students being assisted through the process by setting of sub-goals and the provision of feedback from team supervisors and academic staff. As maritime archaeological research generally requires a team in order to achieve fieldwork goals, the topic assessment partly consists of reports produced on group-based research projects which depend on the use of an explicitly collaborative process.
Skills Training: AIMA/NAS Training

In the late 1980s the Nautical Archaeology Society (NAS) introduced the NAS Training Scheme in Great Britain. Initially restricted to Great Britain the NAS Training Scheme was adopted by a number of countries during the early 1990s including Canada, South Africa, some European countries such as Germany, Sweden, Switzerland & Turkey and in some states of the USA including Florida and South Carolina. The NAS course structure consists of four parts (Parts 1, 2, 3 and 4). Part 1 is a two-day introduction to maritime archaeology (usually conducted over a weekend) consisting of 16 hours of tuition, which is available to both divers and non-divers. Part 2 requires attendance at a Survey Day school or lecture series as well as completion of a short project and a total of 2 days attendance at archaeology conferences. Part 3 requires the accumulation of 100 contact hours of tuition in 6 or 7 subject areas while Part 4 requires a major research project.

In 1997 AIMA purchased a licence to conduct training in Australia based on the NAS training package. AIMA sought and obtained the approval of the NAS to tailor the existing NAS Training package to suit Australian conditions and then employed a consultant (Vivien Moran) to tailor this program to suit Australian conditions and the local legislation and administration (Moran & Staniforth 1998). For more than a decade AIMA has been offering the AIMA/NAS Training program which is a modular four-part training program designed to provide practical training and skills in maritime archaeology methods for interested people - primarily, but not exclusively, SCUBA divers. AIMA/NAS Training courses are taught by suitably qualified and experienced maritime archaeologists. Since 1997 more than a dozen Part 1 and Part 2 training courses have been run in South Australia by maritime archaeologists from Heritage SA and Flinders University. Approximately half of those who have completed AIMA/NAS training in South Australia were also students at Flinders University. The internationally recognized NAS four part training program is seen as an important component of the practical training provided by Flinders University. All students who complete the
Graduate Certificate in Maritime Archaeology at Flinders University, for example, also complete virtually all of the requirements for AIMA/NAS Parts 1, 2 and 3 certification – in order to complete the final requirement they just need to attend a suitable two-day conference.

**Internships and Work Placements**

Internships and work placements clearly help students to get jobs in the field. Peta Knott (MMA 2006), for example, completed an internship at the South Australian Maritime Museum (SAMM) which subsequently helped her to gain a joint position with the Tasmanian Maritime Museum and the Tasmanian Museum and Art Gallery in 2007. In addition to internships conducted within Australia, in 2007 MAP extended the internship program to include formal arrangements with our first international internship provider – the Lighthouse Archaeological Maritime Program (LAMP) in St Augustine, Florida where we also conducted a practicum for 8 students in July of 2007. Internships also provide the partner organisations with the chance to evaluate students for possible future employment in temporary or permanent positions. Heritage Victoria, for example, has employed at least five MAP graduates in some capacity over the past decade, the Tasmanian Parks and Wildlife Service employs two MAP graduates and the South Australian Department for Environment and Heritage has employed two MMA graduates in the last two years.

![Figure 5: Magnetometer Survey Conducted during the 2007 LAMP Practicum held at St. Augustine, Florida (Photo: Courtesy of the Maritime Archaeology Program, Flinders University)](image)

In order to gain work experience and valuable field skills, postgraduate, graduate and honours students in maritime archaeology have been encouraged to volunteer on projects run by
government cultural heritage agencies such as Heritage Victoria, the Tasmanian Parks and Wildlife Service and Heritage SA. In addition students have been involved in, and even responsible for, avocational projects in underwater archaeology such as the Holdfast Bay Jetty project conducted by the Society for Underwater Historical Research (SUHR) in South Australia (Richards & Lewczak 2002; Rodrigues 2002a and 2002b). It is at this level that students need to take responsibility for gaining, and adding to, their own field skills and experience through their participation in projects outside the formal teaching offered by universities.

Conclusion

MAP has developed some excellent, collaborative educational partnerships with other universities as well as government underwater cultural heritage management agencies and museums, primarily working through field schools, practicums, internships and work placements. More than 100 students have now specialised in maritime and underwater archaeology at undergraduate, graduate or postgraduate level at Flinders University. MAP graduates work, or have worked, for many of the government cultural heritage management agencies and museums involved in maritime archaeology in Australian states such as NSW, South Australia, Victoria and Tasmania as well as overseas while others have gone on to postgraduate studies at other Australian and overseas universities. In more recent years these alumni have helped to maintain and develop the existing partnerships. Collaboration is seen as the key to making these partnerships work and working to ensure that all of the players gain from the process is considered essential. These educational partnerships demonstrate some highly effective ways in which genuine collaboration and cooperation between a program in a higher education institution and the wider industry can actually take place. They expose students to the work context of maritime archaeology and produce job-ready graduates both in Australia and overseas.

Acknowledgements

The Maritime Archaeology Program at Flinders University would not exist without the help and support of members of the maritime archaeological community in Australia, in particular Bill Jeffery, David Nutley, Cos Coroneos, Kieran Hosty, Tim Smith, Peter Harvey, Ian Moffat, Peter Veth and Mike Nash. The support of partner organisations including the Tasmanian Parks and Wildlife Service, Tasmanian Museum and Art Gallery, Port Arthur Historic Sites Management Agency, South Australian Department of Environment and Heritage, South Australian Maritime Museum, New South Wales Heritage Office, Heritage Victoria, Ecophyte Technologies, James Cook University and the Western Australian Maritime Museum is much appreciated. In addition, overseas partners include the University of Ulster, Asian Academy of Heritage Management (AAHM), UNESCO and the Lighthouse Archaeological Program (LAMP) in St Augustine, Florida are gratefully acknowledged.

References

Jasinski, M. & Soreide, F. 2008. Seven Seas: Maritime archaeology at the Norwegian University of Science and Technology. In Collaboration, communication and involvement: Maritime ar-


About the Author

Mark Staniforth

Associate Professor Mark Staniforth has broad experience in historical archaeology, maritime archaeology and museums in a career that spans over twenty-five years. Mark is currently the Convenor of the Maritime Archaeology Program in the Department of Archaeology at Flinders University where he teaches topics in undergraduate and postgraduate maritime archaeology. He is the author of Material Culture and Consumer Society published by Plenum Press of New York in 2003. He is the editor (with Mike Nash in 2006) of Maritime Archaeology: Australian Approaches (Plenum Press. New York) and (with Mike Hyde in 2001) of Maritime Archaeology in Australia: A Reader (Southern Archaeology. Blackwood, SA.) He has published more than 70 publications in Australian and International journals in a twenty-five year career in maritime archaeology.
EDITORS
Mary Kalantzis, University of Illinois, Urbana-Champaign, USA.
Bill Cope, University of Illinois, Urbana-Champaign, USA.

EDITORIAL ADVISORY BOARD
Michael Apple, University of Wisconsin, Madison, USA.
David Barton, Lancaster University, Milton Keynes, UK.
Mario Bello, University of Science, Cuba.
Robert Devillar, Kennesaw State University, Kennesaw, USA.
Daniel Madrid Fernandez, University of Granada, Spain.
Ruth Finnegan, Open University, Milton Keynes, UK.
James Paul Gee, University of Wisconsin, Madison, USA.
Juana M. Sancho Gil, University of Barcelona, Barcelona, Spain.
Kris Gutierrez, University of California, Los Angeles, USA.
Anne Hickling-Hudson, Queensland University of Technology, Kelvin Grove, Australia.
Roz Ivanic, Lancaster University, Lancaster, UK.
Paul James, RMIT University, Melbourne, Australia.
Andreas Kazamias, University of Wisconsin, Madison, USA.
Peter Kell, University of Wollongong, Wollongong, Australia.
Michele Knobel, Montclair State University, Montclair, USA.
Colin Lankshear, James Cook University, Cairns, Australia.
Kimberly Lawless, University of Illinois, Chicago, USA.
Sarah Michaels, Clark University, Worcester, USA.
Jeffrey Mok, Miyazaki International College, Miyazaki, Japan.
Denise Newfield, University of Witwatersrand, Johannesburg, South Africa.
José-Luis Ortega, University of Granada, Granada, Spain.
Francisco Fernandez Palomares, University of Granada, Granada, Spain.
Ambigapathy Pandian, Universiti Sains Malaysia, Penang, Malaysia.
Miguel A. Pereyra, University of Granada, Granada, Spain.
Scott Poynting, Manchester Metropolitan University, Manchester, UK.
Angela Samuels, Montego Bay Community College, Montego Bay, Jamaica.
Michel Singh, University of Western Sydney, Sydney, Australia.
Helen Smith, RMIT University, Melbourne, Australia.
Richard Sohmer, Clark University, Worcester, USA.
Brian Street, University of London, London, UK.
Giorgos Tsiakalos, Aristotle University of Thessaloniki, Thessaloniki, Greece.
Salim Vally, University of Witwatersrand, Johannesburg, South Africa.
Gella Varnava-Skoura, National and Kapodistrian University of Athens, Greece.
Cecile Walden, Sam Sharpe Teachers College, Montego Bay, Jamaica.
Nicola Yelland, Victoria University, Melbourne, Australia.
Wang Yingjie, Beijing Normal University, Beijing, China.
Zhou Zuoyu, Beijing Normal University, Beijing, China.

Please visit the Journal website at http://www.Learning-Journal.com
for further information about the Journal or to subscribe.
THE UNIVERSITY PRESS JOURNALS

**ARTS IN SOCIETY**
Creates a space for dialogue on innovative theories and practices in the arts, and their inter-relationships with society.
ISSN: 1833-1866
http://www.Arts-Journal.com

**BOOK**
Explores the past, present and future of books, publishing, libraries, information, literacy and learning in the information society.
ISSN: 1447-9567

**DESIGN PRINCIPLES & PRACTICES**
Examines the meaning and purpose of ‘design’ while also speaking in grounded ways about the task of design and the use of designed artefacts and processes.
ISSN: 1833-1874

**GLOBAL STUDIES JOURNAL**
Maps and interprets new trends and patterns in globalisation.
ISSN 1835-4432

**HUMANITIES**
Discusses the role of the humanities in contemplating the future and the human, in an era otherwise dominated by scientific, technical and economic rationalisms.
ISSN: 1447-9559

**LEARNING**
Sets out to foster inquiry, invite dialogue and build a body of knowledge on the nature and future of learning.
ISSN: 1447-9540

**MANAGEMENT**
Creates a space for discussion of the nature and future of organisations, in all their forms and manifestations.
ISSN: 1447-9575

**INCLUSIVE MUSEUM**
Addresses the key question: How can the institution of the museum become more inclusive?
ISSN 1835-2014

**SUSTAINABILITY**
Draws from the various fields and perspectives through which we can address fundamental questions of sustainability.
ISSN 1832-2077
http://www.Sustainability-Journal.com

**TECHNOLOGY**
Focuses on a range of critically important themes in the various fields that address the complex and subtle relationships between technology, knowledge and society.
ISSN: 1832-3669

**UL**
Investigates the affordances for learning in the digital media, in school and throughout everyday life.
ISSN 1835-2030
http://www.ULJournal.com

FOR SUBSCRIPTION INFORMATION, PLEASE CONTACT
subscriptions@commonground.com.au

Archived at Flinders University: dspace.flnders.edu.au