

# IKUWA6

## Shared Heritage: Proceedings of the Sixth International Congress for Underwater Archaeology

28 November–2 December 2016,  
Western Australian Maritime Museum  
Fremantle, Western Australia

edited by

Jennifer A. Rodrigues and Arianna Traviglia



ARCHAEOPRESS PUBLISHING LTD

Summertown Pavilion  
18-24 Middle Way  
Summertown  
Oxford OX2 7LG

[www.archaeopress.com](http://www.archaeopress.com)

ISBN 978-1-78491-642-8

ISBN 978-1-78491-642-8 (e-Pdf)

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## **Acknowledgment to Country**

On behalf of the IKUWA International Steering Committee and the IKUWA6 Organising Committee and its partners, we acknowledge the Wadjuk Nyoongar people, traditional owners and custodians of the land on which the IKUWA6 conference was held, and we pay our respects to elders past, present and emerging. We thank them for having allowed us to meet on their land and for granting everyone safe passage.



## Preface

This volume is comprised of 70 peer-reviewed papers (articles as well as short and technical reports) that were part of a larger number of papers and posters presented at the *Sixth International Congress for Underwater Archaeology (IKUWA6)*, held at the Western Australian Maritime Museum in Fremantle, from 28 November to 1 December 2016. Acceptance and processing of submissions for this volume began the following year, in 2017.

The papers in this volume have been largely organised according to their session themes, arranged here as chapter themes. Given the broad subject areas included, some of these themes were consequently merged or broadened to accommodate other papers, and avoid the occurrence of just one or two papers in a chapter. As will be evident, this was not possible for every paper; however, the chapter themes are indicated in the contents table as a guide to the sequencing of the flow of papers.

As much as possible, we have attempted to leave the language and style as close to the authors' original as possible. This has meant that certain papers may have a 'speech' feel in certain contexts, but overall, the language has been kept as formal and consistent as reasonably possible.

As this is the first of the IKUWA conference proceedings to be peer-reviewed, the editors accepted a risk in deciding to undertake the additional layer and complexity of tasks that would consequently be involved; and, the time it would take to complete the entire process for each submission. Although extremely time consuming and painstaking in many respects due to the sheer workload (all of the work had to be undertaken in personal time, and outside of normal, full time work, and even holiday commitments), the resulting peer-reviewed publication has been a worthwhile effort.

The remainder of this preliminary section describes the organisation of the conference primarily to acknowledge all those who played a part in the entire journey, and gives insight into some of the mechanics involved in preparing these proceedings.

We hope that researchers of all capacities will find this volume helpful, informative and thought-provoking.

Editors, April 2020

# Conference Organisation and Acknowledgements

This section serves to acknowledge all those who were involved in, and who supported, the organisation of IKUWA6. Given the scale of the event and the number of people involved in so many ways and at so many levels, it is impossible to name everyone who contributed to the resounding success of the conference and its associated academic and social programming. Nevertheless, a number of individuals, organisations, businesses and agencies deserve special mention. Those whose contributions were most essential are acknowledged and thanked in the following pages.

## Background and objectives

The idea to bid for IKUWA6 was conceived by Jennifer Rodrigues who felt it would be timely to bring a major international conference that covers the broad content of maritime archaeology and history to Australasia, and to provide a very real opportunity for countries in the region and the wider southern hemisphere to participate. Attending conferences in Europe or the US has long been a significant challenge for many of our South-east Asian neighbours and colleagues in particular, yet important research and initiatives that were being undertaken in this region meant that their programmes had much to offer on the international stage. This was, thus, identified as a favourable occasion to forge and reinforce connections with our colleagues in the Pacific as well as East and South-east Asia, and to bring together northern and southern hemisphere researchers in this field. In particular, it was a chance to highlight the connections of our shared heritage stories across the globe. Holding a major conference such as IKUWA was a chance to overcome years of challenges faced by Australian colleagues who were trying to bring other major international conferences held in the US to Australia, but met much resistance due to the distance and cost for northern hemisphere colleagues to travel to Australia.

Having obtained the support of the Perth Convention Bureau, Tourism WA and the Western Australian Museum, the decision was made to bid for IKUWA6 at the meeting of IKUWA4 at Zadar, Croatia, in 2011. The bid team comprised Jennifer Rodrigues, Wendy van Duivenvoorde, Michael Gregg, Andrew Viduka and Arianna Traviglia who played essential roles in the preparation and delivery of the bid, as well as in promoting the unique benefits of holding IKUWA6 in Australia, which was integral to the eventual outcome of the bid in terms of garnering support from the voting delegates. Australia unanimously won the bid, and we thank everyone who supported it. The IKUWA Steering Committee agreed for Australia to host the conference in 2016, only two years after IKUWA5 – held at Cartagena, Spain, in late 2014 – in order to coincide with Western Australia's 400th anniversary of the first recorded European landing in October 1616. It seemed timely to have these events corresponding in the same year culminating in major State and institutional celebrations. These led to 2016 being a significant year for Western Australia's contributions to the field of maritime cultural heritage and history, all of which were hugely successful due in no small part to the strength and support of the Western Australian Museum.

## Acknowledgements

All major international events require a significant and sustained effort to deliver a successful outcome in many disparate ways, and IKUWA6 was no different. The organisation of this international conference – the first time it has been held outside of Europe – required the genuine and long lasting commitment and support of so many individuals, teams, agencies, committees, institutions and supporters to finally deliver a hugely successful outcome for the delegates, the committees, sponsors, patrons and all who were connected to it. Holding the conference outside Europe for the first time presented some significant challenges such as the fact that the rest of the Steering Committee members were based in Europe so that the usual site inspections, meetings and normal protocols had to be done differently. For this reason also, a considerable number of associated programmes were offered as part of the IKUWA6 conference, and aggressive marketing carried out very early promoting Western Australia and the rest of the country as a summer destination in conjunction with attending IKUWA6. As well, IKUWA is an inclusive conference that encompasses all aspects of the field of maritime archaeology, heritage management, museum representations and community engagements, amongst many others. The structure and scale of its conferences, therefore, require careful management in terms of representation and thematic organisation especially where parallel sessions occur. The complete support received from members of the Steering Committee, and their trust in the IKUWA6 organisers, gave the organising team much confidence in delivering a high quality and memorable event.

### **IKUWA steering committee**

The IKUWA Steering Committee consists of founding members and those who were involved in chairing previous conferences, since the time of its inception in Germany in the late 1990s. The committee is wholeheartedly thanked for their invaluable advice the whole way through the organisation of IKUWA6. Special mention is made of Hanz Martin (Germany), Mark Beattie-Edwards (England), Beat Eberschweiler (Switzerland), David Blackman (England) and Hrvoje Potrebica (Croatia) for their outstanding support in the lead up to, during, and after IKUWA6, drawn from their own past experiences and humble leadership.

Hanz Guenter Martin	Chair	Deutsche Gesellschaft zur Förderung der Unterwasserarchäologie e.V., Germany
David Blackman	Vice-Chair	University of Oxford, England
Peter Winterstein	IKUWA1	Deutsche Gesellschaft zur Förderung der Unterwasserarchäologie e.V., Germany
Beat Eberschweiler	IKUWA2	Swiss Society of Underwater Archaeology, Switzerland
Mark Beattie-Edwards	IKUWA3	Nautical Archaeology Society, England
Luka Bekić	IKUWA4	International Centre for Underwater Archaeology, Croatia
Hrvoje Potrebica	IKUWA4	University of Zagreb, Croatia
Iván Negueruela	IKUWA5	National Museum of Underwater Archaeology (ARQVA), Spain
Jennifer Rodrigues	IKUWA6	Western Australian Museum, Australia
Arianna Traviglia	IKUWA6	Italian Institute of Technology / Università Ca 'Foscari Venezia, Italy

### **IKUWA6 honorary committee**

An Honorary Committee was formed well ahead of the conference to strengthen the event's profile. The composition of the Committee signified the highest governmental and institutional support for the principles that IKUWA6 represented in promoting the preservation and sharing of our collective global maritime heritage, community engagements and educational opportunities. In alphabetical order, the committee comprised:

Alec Coles	Chief Executive Officer, Western Australian Museum / IKUWA6 host, Perth
His Excellency Paulo da Cunha Alves	Ambassador of Portugal to Australia, Canberra
The Honourable John Day, MLA	Minister for Health, Culture and the Arts, Western Australia, Perth
Elisa de Cabo de la Vega	Secretaría de Estado de Cultura, Ministerio de Educación, Cultura y Deporte / IKUWA5 host, Madrid
Ulrike Guérin	Secretariat of the 2001 Convention on the Protection of the Underwater Cultural Heritage, Cultural Heritage Protection Treaties Section, UNESCO Paris
Martin Hadlow	Deputy Chair, Australian National Commission for UNESCO, Queensland
Chris Johnston	Assistant Secretary, Department of the Environment and Energy, Canberra
His Excellency Christophe Lecourtier	Ambassador to Australia for France, Canberra
Her Excellency Mrs Erica Schouten	Ambassador to Australia for the Kingdom of the Netherlands, Canberra
Arturo Rey da Silva	Secretariat of the 2001 Convention on the Protection of the Underwater Cultural Heritage, Cultural Heritage Protection Treaties Section, UNESCO Paris

Each member was kept updated in the lead up to, and following, the conference in relation to the planning, status, programmes as well as final statistics and outcomes. Being directly connected with the conference via a high profile online presence, it was important to ensure that all members of the committee were in agreement with decisions made and programmes organised, including feedback from delegates after the event. The IKUWA6 organisers remain deeply grateful to the Honorary Committee for its support during the entire journey.

## **IKUWA6 conference chairs**

The three Conference Chairs led the organisation and decision-making of every logistical aspect of the conference –planning, managing, budgeting, accounting, making, choices, solving issues, editing, and completing a large volume of endless tasks.

Jennifer Rodrigues	Western Australian Museum, Fremantle
Arianna Traviglia	University of Venice, Venice
Andrew Viduka	Department of Environment and Energy, Canberra

## **Organising committee and volunteers**

The IKUWA6 organising committee of volunteers was carefully selected for their expertise, abilities, skills, professionalism and reliability to undertake and efficiently deliver on expectations to a very high level. The Conference Chairs are deeply indebted to each one for delivering on a wide range of expectations that are too many to list here but included seemingly minor details that made an important difference in delivering the sorts of outcomes that impacted on delegates’ experiences. A select few went beyond the call of duty especially as it became evident that others were hampered by heavy remote work commitments and time in the field but were still able to contribute much effort and energy to help bring everything together. These are highlighted under their relevant sections below. This Committee comprised:

Nicolas Bigourdan	Western Australian Museum, Fremantle
Charlotte Minh Ha Pham	Murdoch University, Perth
Michael Gregg	Western Australian Museum, Fremantle
Vicki Richards	Western Australian Museum, Fremantle
Danielle Wilkinson	Cosmos Archaeology Pty Ltd, Sydney
Kotaro Yamafune	Texas A&M University, Texas
Jim Stedman	Archaeos Pty Ltd, Perth
Kevin Edwards	Tempus Archaeology, Fremantle
Della Scott-Ireton	University of West Florida, Florida
Rebecca Ryan	University of Sydney, Sydney
Cassandra Wilson	Western Australian Museum, Fremantle
Abhirada Pook Komoot	Independent Researcher, Bangkok
Jun Kimura	Tokai University, Japan
Graeme Henderson	Wreck Check Inc., Perth

Thanks are also due to: Jocelyn Skeggs (formerly with Perth Convention Bureau) for her invaluable support and advice for the team to travel to Croatia to present a very strong bid; as well as Heather McFarlane, Patrick Baker, Donna Wallis-Smith and Carol Harwood (Western Australian Museum, Perth) for their significant support and contributions along the way.

A small cohort of local and international student volunteers joined the organisers at the last stage to assist with day-to-day integral duties to ensure everything would progress smoothly, indeed progress at all. These volunteers play a critical role in major occasions such as this, and each one is warmly acknowledged for his or her commitment, professionalism and collegiate spirit they brought with them. Servicing of the registration desks at the beginning and throughout the conference meant that the sudden influx of registrants on the very first morning was managed smoothly. The background work in organising the administration was pivotal in seeing this progress smoothly from the start. The accepting, testing and delivering of all electronic files for speaker presentations ahead of respective sessions resulted in an extremely efficient and smooth running of these sessions. They also provided general technical support, which ensured that on-the-spot technical challenges were resolved quickly and efficiently to reduce or eliminate any potential impact on the extremely tight session timeframes and, consequently, the overarching schedule. Thanks also to the large number of volunteers who helped with the tedious but important organisation of the delegate conference bags, nametags and other logistics.

## **Major partner and sponsor**

As the sole major partner and the biggest sponsor, the Western Australian Museum, deserves a very special acknowledgement. In particular, its Chief Executive Officer Alec Coles deserves particular mention for his

extraordinary support at so many levels – for agreeing to host the conference at its Maritime Museum venue in Fremantle at what was the height of its commercial opportunities for event bookings, for seeking a second venue as a third presentation space (without being asked!) when it became evident that the numbers were growing with more delegates wanting to be included in the programme, for underwriting the event, and for the organisational resources that went into delivering the conference in its entirety, which by the end was enormous. Securing the third presentation space and negotiating its free use on behalf of the organisers enabled more presenters to be included in the programme and was deeply appreciated. The Organising Committee remains indebted to Alec Coles and the Western Australian Museum for providing immense support for IKUWA6.

### **Additional sponsors, supporters and exhibitors**

Another major sponsor, the Honor Frost Foundation, funded a considerable number of delegates to attend IKUWA6 and present their research. The Perth Convention Bureau and Tourism WA provided critical and substantial funding for the bidding of IKUWA6 in 2011 in Zadar, Croatia, and then subsequently for the marketing and promoting of the conference within Australia and overseas. Silentworld Foundation sponsored the opening night's Welcome Reception, which allowed for a very successful and fun evening.

James McKibbin (Fremantle Zoetrope) produced and supported the series of lighthearted and deliberately amusing promotional videos titled 'Are you in?' as part of the marketing campaign for the conference. It provided an element of fun for those involved and delighted many viewers. The organisers thank all those who participated in these videos because each person had to be filmed, or had to organise their own filming, which was done all around the world. Nicolas Bigourdan is specially acknowledged for his enormous efforts in managing this series of recordings and pulling together so many challenging elements. The Embassy of the Kingdom of the Netherlands in Canberra sponsored a social networking event on the second night of the conference. This was an added celebration to Western Australia's state commemorations of the 400th anniversary of the first recorded European (Dutch) contact with the west coast, a major State government programme that the Western Australian Museum played a key role in delivering through a combination of award-winning programmes in 2016, and which connected nicely with IKUWA6.

SRA Technology provided important financial support and delegate gifts, and was as an event exhibitor. Fremantle Port Authority allowed for the use of historic C Shed as a third parallel session space, and which included the poster display. Professional Diving Services in Melbourne, especially Malcolm Venturoni, are thanked for their financial support and gift for the delegates' conference packs. The Australasian Institute of Maritime Archaeology permitted the conference website to be hosted via its web domain. The content was subsequently scaled down and migrated to the website of the Nautical Archaeology Society (NAS) in the UK after IKUWA6 was over, and for the processing of the proceedings; the NAS generously hosts all legacy web content of all previous IKUWA conferences.

### **Patronage**

Patrons of the conference are acknowledged for the support that their respective and collective brands and high profiles afforded IKUWA6. These comprised agencies, academic and government departments, as well as associations of international standing that provided the highest form of ethical and moral support for the principles of IKUWA6. Members included:

- United Nations Educational, Scientific and Cultural Organisation (UNESCO), Paris
- Advisory Council on Underwater Archaeology (ACUA), International
- Australia's International Council on Monuments and Sites (ICOMOS), Australia
- Nautical Archaeology Society (NAS), England
- Alliance Francaise de Perth, Perth
- Embassy of France, Canberra
- Università Ca 'Foscari Venezia, Venice

### **Before the conference**

Because IKUWA6 was the first time an IKUWA conference was to be held outside Europe, promoting the event and attracting delegates from the northern hemisphere posed a challenge, whilst the opportunity – a primary objective for bringing the conference to Australia – was also identified in being able to attract delegates, researchers and practitioners from the Pacific island states, South-east Asia and the surrounds. Consequently, promotions started

in the years prior in order to attract as many delegates and supporters as possible and raise the profile of the conference to far reaching destinations. The aggressive marketing was viewed as necessary to allow individuals and agencies to factor this event into their projected schedules and budgets for attending the conference, allowing as much lead up time as possible for interested participants to attempt to make the most of their visit in their planning. IKUWA6 was also promoted at other international conferences in Europe, and the IKUWA6 organisers thank these organisations.

Andrew Viduka very successfully managed the sponsorship responsibilities and vital stakeholder relationships for the conference including other crucial responsibilities from Canberra — these were integral for the success of progressing various elements. Arianna Traviglia provided much needed technical and administrative input, designs, budgeting, and important communications, first from Sydney then from Venice. Jennifer Rodrigues built and maintained the website for the conference and associated tours; and, managed the marketing strategy, logistics and administration necessary including the team on the ground. Jennifer had designed the conference logo in 2011 as part of the bid in Zadar. The concept took its inspiration from at least one age-old Australian aboriginal art practice, with colours and patterns representing earth and sea. The logo design features the central wave pattern of past IKUWA logos whilst incorporating indigenous Australian motifs and colours that embody both the prehistoric and maritime identities of Australia. Support from the Museum particularly with on-line registration for the conference and associated programming meant this process was smoothly carried out. This was the first time registration was created for an event of this nature and scale by the Museum, and a special thanks is extended to Heather McFarlane and the IT team for their crucial support.

IKUWA6 was the first time that a call for sessions was publicised rather than the organising committee constructing these first then inviting abstracts. Once finalised, a call for papers was announced. In vetting the sessions and associated papers, it became clear that there was a massive oversubscription of abstracts for both paper and poster presentations then could be accommodated. As a result, the conference chairs felt it necessary to manage the accepted papers and posters closely to ensure the venue could physically and practically accommodate the submissions accepted within a reasonably planned schedule. Like all IKUWA conferences, all abstracts were peer and blind reviewed; any disagreements were handed over to a third appropriate reviewer in the subject matter before final decisions were made. Here again, the organisers sincerely thank all reviewers and authors, and the IKUWA Steering Committee.

As the organisation progressed in 2016, it became evident that the marketing strategy had been overly successful. Registrations were became over-subscribed, with more local, national and international presenters wanting to be included but who had to be placed on the waitlist, or offered the opportunity to present a poster due to limitations for speaker spots available. The third space (C Shed) outside of the Western Australian Maritime Museum but within close walking distance was secured, which allowed for the number of presenters to be immediately expanded, though still not all could be included. Nevertheless, it further fulfilled IKUWA's desire to include as many delegates and presenters as possible at all conferences. IKUWA also has a tradition of viewing and treating all delegates and presentations as equal, a reason why no keynote addresses were included in the programme. Ideally, a conference with a single session would allow the richest of engagements for all delegates. Understandably, however, large conferences face time constraints and high costs meaning that this is often impossible, particularly conferences that cover all areas of the field such as IKUWA does. Consequently, registrations were closed more than a month before the conference due to the oversubscription, as considerations had to be made regarding space, safety issues and the sheer management of delegate numbers.

### **The conference and associated programmes**

The conference was organised with several objectives in mind — to allow the maximum number of high quality papers and posters to be included; to attempt the least number of parallel sessions as possible for maximum engagement for all participants; to allow as many opportunities as possible for participants to reconnect and develop new networks for potential collaborations during the conference; to keep all associated fees and costs as low as possible for maximum participation; and, to ensure everything ran as smoothly as possible so that delegates could enjoy and take away the best experience possible.

IKUWA6 welcomed nearly 300 delegates representing 41 nations or islands; more than half travelled from overseas to hear, read about or discuss some 170 presentations in the programme. More than 30 posters and more than 130 oral presentations were delivered over the four days across three parallel sessions, which included dedicated sessions for viewing of posters and ability to engage directly with poster presenters. A UNESCO roundtable session

was held as the first session on day one. Our thanks to Ulrike Guerin from UNESCO Paris for leading the organisation of this, and coordinating the programme. All session organisers, session chairs and presenters are acknowledged for their efforts, and all delegates are thanked for participating in the conference, as everyone played a part in making IKUWA6 the success that it was.

A dedicated 'book room' was organised in the Maritime Museum for delegates and sponsors who wanted to promote their publications and projects, including banners, flyers and other materials. The room turned out to be a welcome quiet 'getaway' for delegates who needed to do some focused work or preparations whilst enjoying views of Fremantle's working harbour and the Indian Ocean.

### ***Pre-conference workshop***

The weekend before the start of the formal presentation sessions saw a two-day intensive workshop on 3D Multi-Image Photogrammetry. This two-part, two-day course was sold out several weeks before the conference yet organisers still kept receiving requests so both classes were beyond capacity but manageable. Taught by Kevin Edwards and Kotaro Yamafune, and assisted by Patrick Baker, the first day was an introduction to basic concepts and applications; and, the second involved more intermediate and advanced concepts and applications. All instructors are duly acknowledged for their initiatives and efforts in preparing for the workshop and for organising all equipment and materials.

### ***Opening Night Welcome Reception***

As acknowledged above, Silentworld Foundation sponsored the Welcome Reception on the opening night. It was a hugely successful occasion that allowed many old friends and colleagues to reconnect as well as establish new networks ahead of an intense but fun week. The Foundation was particularly understanding and generous in agreeing to increase its sponsorship late in the process when registration for this opening went beyond expected numbers and hit capacity so that catering and associated costs consequently increased. The organisers remain extremely grateful to Paul Hundley and the Foundation for their generous support, which enabled the event to be a huge success.

To pay respect to the fact that we were on Aboriginal land and country, Len Collard (University of Western Australia) is warmly thanked for conducting, as part of the opening ceremony, a very moving 'Welcome to Country', an extremely important Australian Indigenous ceremony that can only be performed by a recognised elder. Visitors are welcomed to their Country (local homeland), enjoying the safe passage granted, and recognising the ancestral spirits past, present and emerging. In Australia, this sacred observance highlights the cultural significance of the land and surrounds to a particular clan or language group.

John Bannister & the Charisma Brothers provided the entertainment on the Opening Night, a meaningful connection with the Museum in that the lead, John Bannister Jr., is the son of the late John Bannister, a former CEO of the Western Australian Museum. All speakers on the night are gratefully acknowledged: Len Collard, Alec Coles (Master of Ceremonies), Jennifer Rodrigues, Hanz Martin and last but not least, then Minister for Culture and the Arts, John Day, for officially opening the event.

### ***Informal Networking Evening***

As acknowledged above, the Embassy of the Kingdom of the Netherlands in Canberra sponsored this event. The organisers are grateful to the Embassy and its staff for their generosity and for organising the event. It was a nice ending to what was an extremely intense year of commemorations surrounding the 400th anniversary State celebrations.

### ***Conference Dinner***

A social dinner was held on the last night of the conference. Leading this planning was Vicki Richards who deserves special acknowledgement. The dinner was held at the Fremantle Sailing Club, situated with spectacular views of the Indian Ocean and its unique sunsets. Considering the various dietary requirements, a desire to keep costs as low as possible and other logistical factors involved, the dinner and entertainment was a massive success and all who were involved are duly acknowledged. The same IKUWA6 student volunteers and Charlotte Pham are also acknowledged again for the critical part they played in ensuring everything ran smoothly.

## Conference Tours

The conference offered four tours to delegates – before, during and after the formal presentation sessions. A very special acknowledgement must go to Nicolas Bigourdan for his noteworthy achievement in singlehandedly organising all of these, coordinating participants who registered, fielding all queries, and liaising with tour operators including hiring and driving of buses to assist participants with pick-ups and drop offs.

- ***Abrolhos Islands Shipwrecks Special Tour (Full Day)***

This was a very rare and unique day trip that involved participants flying from Perth to Geraldton, then flying in a small aircraft over the stunning Abrolhos Islands to view the *Batavia* (1629) and *Zeewijk* (1727) Dutch VOC shipwrecks. It included time for snorkelling, morning tea and lunch on one of the islands. It was an opportunity to view the beautiful Houtman Abrolhos, 60km west of Geraldton on the mid-west coast. The Abrolhos consists of 122 islands and associated coral reefs. The marine environment is a meeting place for tropical and temperate sea life, and is one of the world's most important seabird breeding areas.

- ***Fremantle Prison Torchlight Tour (Evening)***

This fascinating, peculiar and somewhat eerie evening tour involved going through the old Fremantle Prison – Western Australia's only World Heritage Listed building.

- ***Swan Valley Wine Tour (Half Day)***

This fun tour included wine, cheese and beer tastings, and historical background information about the Swan Valley – one of the oldest wine regions in Western Australia, and Australia.

- ***Rottneest Island Dive and Snorkel Trip to Shipwreck Sites (Full Day)***

This popular day trip involved a boat ride from Fremantle to selected shipwreck sites around Rottneest Island (19 km west of the mainland) with a barbeque lunch on board.

The phenomenal effort in organising all of these tours was no mean feat and the team remains deeply grateful to Nicolas.

## Post IKUWA6 and proceedings

Feedback received from a vast number of delegates personally to the organisers, through emails and primarily via social media, strongly indicated that the entire conference event was a resounding success. Delegates felt it was very professionally organised, presentations were of high quality, and that they had a meaningful and enjoyable experience. This was heartening for the organising committee, volunteers and for the Museum who, individually and collectively, invested an enormous volume of resources and sacrifices to deliver the best experience possible.

A heartfelt 'thank you' is extended to all of the volunteers, named and not named here, for their time and efforts, which played a part in the experiences of the conference delegates, many of whom came from very far flung locations and were first time visitors to Australia. The Conference Chairs are also grateful to those who helped with the clean up and post conference tasks after IKUWA6 was over.

Processing of the conference proceedings began the following year, in 2017. The editors thank everyone who was involved in this process including authors, reviewers and sponsors of this publication (listed below). To manage the entire process, a free online journal management system, Open Journal System (OJS), was selected. The system was acceptable overall albeit with a few technical issues. Much confusion occurred at the submission stage in terms of text and image files being uploaded to incorrect categories, uploading of incorrect or duplicated image files and missing figures, and image files that did not meet requirements. Non-compliance with author guidelines was an overall significant challenge that proved extremely time consuming to rectify and this occurred at all stages with some of the submissions. Many of these issues caused significant confusion, which needed to be rectified before subsequent stages could proceed. The system was new to many so the lack of familiarity was often a factor. Another time-consuming element involved reviewers who agreed to review papers, held onto these for months, but were then unable to review them due to being ill or busy; and, unfortunately, a number of papers went through this cycle multiple times. Despite the many challenges, all authors are acknowledged for seeing through the processing of their papers until the end and are thanked for their patience. All reviewers are acknowledged for their time and effort in enabling this to be a peer-reviewed volume – their time, valuable input and decisions and recommendations on the papers they reviewed are very much appreciated. Particular acknowledgement to Hanz Martin, Chair of the IKUWA



Steering Committee, for his consistent and valued support and for taking on more than the allocated reviews when this was urgently needed. Some papers could not be accepted into this volume due to reviewers' feedback and recommendations; we hope these authors were able to publish their work via other avenues in order to disseminate information about their projects and findings.

A number of agencies provided financial support that enabled publication of this volume. Special thanks again are extended to the Western Australian Museum and Commonwealth Department of Environment and Energy, and we specifically acknowledge once again Andrew Viduka for his invaluable efforts in this regard.

Western Australian Museum



Commonwealth Department of Environment and Energy & Australian Historic Shipwreck Preservation Program



Heritage New Zealand Pouhere Taonga



Environment, Land, Water and Planning, Victoria



New South Wales Office of Environment and Heritage



Norfolk Island Museum



Northern Territory Government



South Australian Department of Environment, Water and Natural Resources



Tasmanian Government



Queensland Government



## Final thoughts

IKUWA6 would no doubt have benefited from availability of more session rooms and an expanded programme, which could have allowed for a higher number of presenters; however, this would have increased overall costs. Importantly, it was simply impossible despite exhaustive investigation by the team to seek further additional spaces to be available at that time within reasonable distance. The conference was over subscribed so that registrations had to be closed when numbers were becoming too high. The strict, blind review process that was implemented to select submissions based on quality and accuracy ensured that the standard of presentations, and therefore the academic and scientific substance of the conference, was very high. This was especially evident based on the feedback received from a vast number of delegates during and after the event. For all the efforts involved, and for all those who participated in the conference in all capacities, those who travelled long distances to Fremantle, and all who were involved in one way or another from the very early days until the end, the organisers are deeply grateful to each and every person. IKUWA6 brought together a vast number of delegates, these included pioneers in the field, students and researchers just starting their training or careers, mid-career professionals, and many other individuals and practitioners who had a genuine interest to be at IKUWA6. The programmes, presentations, supporters, sponsors, organisers, hosts, businesses and delegates collectively and individually contributed to the event's resounding success.

The organising of IKUWA6, whilst largely rewarding and valuable in many respects, was undoubtedly a considerable challenge with many unforeseen and unfavourable situations that arose. Fortunately, the strength of the organising team and volunteers, the ongoing support of the Steering Committee and the Western Australian Museum, and the consistent encouragements from colleagues around the world ensured that the IKUWA6 team was able to achieve its aims. With the bid accepted in late 2011, the conference happening at the end of 2016, and the publication reaching its final stage in late 2019, the entire process has occupied a large portion of the Conference Chairs' and Editors' personal lives. It is with a large degree of relief that this project finally comes to an end. Notwithstanding the impact that organising a major international conference of this scale can have on individuals holding key roles, we nevertheless encourage others to genuinely consider taking on this challenge of organising future IKUWA conferences in as many different parts of the world as possible, with the aim of building upon past successes and experiences. Although exhausting, it is ultimately a rewarding experience, especially as IKUWA6 was able to attract many colleagues from nearby and neighbouring regions, which was a primary goal for bringing the conference to Australia.

We look forward to reconnecting with friends and colleagues at the next IKUWA meeting, IKUWA7, in Helsinki, Finland.

# A Brief Update on Australia's Consideration and Status for Ratification of the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage

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## Abstract

Australia has been actively considering ratification of the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage since 2009. This short paper outlines the status of Australia's consideration as of December 2014 and highlights the announcement made at the opening of the IKUWA6 Conference, by the Australian Government Minister for the Environment and Energy, that Australia will introduce new underwater cultural heritage legislation that would align with the Convention.

## Keywords

Australia, Underwater Cultural Heritage, UNESCO 2001 Convention

## Background up to 2007

Australia has played a leadership role in the development and negotiation of the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage. In 1996 Graeme Henderson, then Director of the Western Australian Maritime Museum, formed a special interest group within the Australian branch of the International Council on Monuments and Sites (ICOMOS) called The International Committee on the Underwater Cultural Heritage (ICUCH) (Henderson 2014: 9–11). ICUCH was formed to promote international cooperation in the protection and management of underwater cultural heritage, and to advise ICOMOS on issues related to underwater cultural heritage around the world. One of the most significant outcomes of the group to date was the drafting of the 1996 ICOMOS-adopted International Charter on the Protection and Management of Underwater Cultural Heritage (ICOMOS 1998), which was confirmed in 2001 as the Annex to the UNESCO 2001 Convention on the Protection of the Underwater Cultural Heritage (the Convention). Other Australians—namely Lyndel Prott and Patrick O'Keefe—are better known for their significant roles in drafting the Convention itself (O'Keefe 2014: 7–8; Prott 2014: 5–6). It is, however, important to note that the efforts of these Australians are not in isolation and that many people throughout Australia, including Australian Government officers, by their actions, publications and research, have encouraged improvements to Commonwealth legislation in Australia and consideration for ratification. It is impossible to list everyone who has contributed to changing Australia's policy position with regards to the Convention but David Nutley and Mark Staniforth have been consistent vocal advocates for ratification and should be recognised for their individual efforts (Henderson and Viduka 2014: 1–36; McKenzie 2010: 63–68; Nutley 2005: 40–43; Viduka 2012: 1–9; Viduka 2014: 15–18). Equally important has been the advocacy

of the Australasian Institute for Maritime Archaeology (AIMA) and its members (Green 2004: 33–42; Jeffery 2002: 75–82). AIMA is Australia's pre-eminent not-for-profit organisation dedicated to the preservation of underwater cultural heritage and represents a varied base of individuals from professionals through to interested members of the public. AIMA's ethics align with the Convention and AIMA Executive has been a vocal and ongoing advocate for the principles outlined in the Convention as well as Australia's ratification.

While Australia was present on 2 November 2001 and voted for the Convention, the fourth Convention protecting cultural heritage, Australia has not yet ratified. This is seven years after the Convention came into force on 2 January 2009, following ratification by 20 States. Indeed, in the Asia-Pacific region only two States have ratified, Iran and Cambodia.<sup>1</sup> This region is one of the least represented and Australia's lack of participation, ratification and leadership is noted by other regional States.

## Why ratify?

Why should Australia ratify? A critical formal step in the ratification process is for a National Interest Analysis to be tabled in Parliament demonstrating the benefits and costs of ratification. It is, thus, important to understand the domestic and international reasons for ratification. Some of the objectives for Australia to amend its legislation and enable ratification of the Convention would be to:

<sup>1</sup> On 19 April 2018, the Federated States of Micronesia ratified the Convention, becoming the third State in the Asia-Pacific Region to do so.

- Provide a similar level of protection and recognition for underwater cultural heritage as that afforded to land-based heritage;
- Enable the Australian Government Department responsible for administering the relevant legislation to lead in protecting Australia's underwater cultural heritage located outside of Australian waters;
- Simplify and create certainty in marine planning by incorporating all aspects of underwater cultural heritage protection within an updated Act;
- Extend protection to aircraft wrecks and to their associated human remains;
- Enable differentiation of human remains from other underwater relics;
- Enable the Australian Government to use the cooperative protection mechanisms within the Convention to better protect our underwater heritage, outside of Australian jurisdictional waters, from the threat of interference and illegal salvage;
- Incorporate international underpinning to domestic heritage legislation;
- Enable Australia to control the actions of foreign individuals and foreign flagged vessels, directed at underwater cultural heritage in waters beyond the Contiguous Zone out to the end of the Exclusive Economic Zone; and
- Take an international role in the protection of underwater cultural heritage and 'lead by example' on this significant heritage preservation issue.

From a policy perspective, once Australia ratifies the Convention, it will enable the Australian Government to more actively engage with ratified and non-ratified countries to protect our overseas underwater cultural heritage.

#### Activities since 2007

Since 2007, Australia has been 'actively' considering the question of ratification. After several earlier efforts at reviewing the Historic Shipwrecks Act 1976, in 2009 the Australian Government commenced a public review of the Act and consideration of ratification of the Convention (Viduka 2012: 3). The review itself was concluded without a report being finalised (McKenzie 2010: 63–68; Viduka 2012: 3; Viduka 2014: 17). However, results from the review indicated that amending the Historic Shipwrecks Act 1976 and ratifying the Convention were supported by the community, States and the Northern Territory (Viduka 2014: 16–17). Ratification was not universally supported in 2009 within the Australian Government; a question was raised about the potential impacts on sovereignty over sunken warships and aircraft.

The most significant outcome stemming from the review was the endorsement by the Commonwealth, States and the Northern Territory of the 2010 Australian Underwater Cultural Heritage Intergovernmental Agreement (IGA). The IGA codifies the practices and processes for administering Australia's underwater cultural heritage that have been in use for over 20 years and requires all relevant States and the Northern Territory governments to undertake all necessary activities to enable the Commonwealth to ratify, should the Australian Government decide to do so (Viduka 2014: 18). Ratification of the Convention will require: minor policy amendments to the Historic Shipwrecks Act 1976; a positive report by the Joint Standing Committee on Treaties of a National Interest Analysis; drafting of enabling legislation; and the agreement of the Federal Executive Council.

Following extensive consultation, on 14 January 2014 the then Minister for the Environment agreed to pursue amending the Historic Shipwrecks Act 1976 to enable ratification of the Convention. This support was substantially withdrawn in late 2014 due to other Government priorities having precedence. In December 2015, both the amendment of the Historic Shipwrecks Act 1976 and consideration for ratification were included in the Australian Heritage Strategy (2015: 31) as outcomes to be delivered by December 2018.

Announced at the opening of the IKUWA6 Conference, the Minister for the Environment and Energy, the Hon Josh Frydenberg MP, committed to repealing the Historic Shipwrecks Act 1976 and the associated Historic Shipwrecks Regulations 1978, and to introducing new legislation that would align with the Convention. The Department of the Environment and Energy is now engaged in seeking drafting resources to prepare the Underwater Cultural Heritage Bill and associated regulations, and will work to meet the Australian Heritage Strategy timeline within available resources and Government priorities.<sup>2</sup>

This approach is in line with the Australian Government's policies to modernise legislation and to have legislation in place that aligns with, and supports, a Convention prior to signing the Convention.

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<sup>2</sup> On 24 August 2018, the Australian Underwater Cultural Heritage Act 2018 received Royal Assent. The new Underwater Cultural Heritage Act will be proclaimed in 2019 and become Australia's primary legislation to protect all underwater cultural heritage. The Underwater Cultural Heritage Act 2018 was drafted in line with the Convention, but still requires minor amendments to enable ratification, should the Australian Government choose to do so.

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