



**Australasian Institute for
Maritime Archaeology Inc**

Newsletter

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The loss of a colleague and a friend

January was a sad month for AIMA as on 27 January 2007 AIMA Councillor 'Terry' Keith Arnott passed away peacefully while asleep at home in Adelaide. Aged 53 years, Terry is believed to have had a heart attack in his sleep.

Terry was a founding member of AIMA, a senior office bearer since AIMA's inception, and current AIMA Councillor and AIMA/NAS Tutor for South Australia. Terry was an inaugural and long standing member of the Victorian Heritage Council's Historic Shipwrecks Advisory Committee (HSAC) since its inception in 1981, but had departed Victoria to take his post in South Australia. His role in Victoria was enormous, as his research and fieldwork to discover the SS *City of Launceston* (1865) shipwreck and subsequent vigorous lobbying led to the enactment of the State Historic Shipwrecks Act and creation of a Maritime Archaeology Unit (MAU) in 1981, which continues to this day as the Maritime Heritage Unit (MHU) of Heritage Victoria. In 2000 Terry was commemorated by the HSAC as a 'pioneer diver, researcher, lobbyist, author, maritime archaeologist and shipwreck discoverer' when he was presented with the Jack Loney Award - the highest honour in the area of maritime heritage in Victoria. (*continued on page 2*)



Terry Arnott in the field (Photo: SA Dept of Environ and Heritage)

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The loss of a colleague and friend (continued from page 1):

Terry was working as the Senior Maritime Heritage Officer for Heritage South Australia in Adelaide, where he continued to pursue his passion for researching and diving shipwrecks and maritime heritage. At the time of his death he was researching sealing and whaling sites and World War II radar stations, the latter of which he presented an interesting paper on at the Darwin conference.

The Darwin AIMA/ ASHA conference in September 2006 was the last time that many of us saw Terry, and he was in fine form meeting old friends and making new ones. Terry was a recent Australasian Society for Historical Archaeology (ASHA) member and had been working towards getting an historical archaeologist appointed at Heritage SA, though he had been undertaking the duties himself.



Terry Arnott in the field (SA Department of Environment and Heritage)

Terry had heart problems for many years, but a triple bypass operation about 10 years ago didn't stop him diving, and with typical Terry persistence he worked furiously on the Adelaide and Queensland diving medical fraternity to obtain clearance to dive on the HMS Pandora fieldwork in 1998.

AIMA members' thoughts and condolences go out to his family Doug, Steve, Jayne and Debbie, and a volume of stories, anecdotes and photographs is being prepared by AIMA members to present to his family. An ashes scattering ceremony over the wreck of the SS City of Launceston took place on the 10 March 2007, the anniversary of the day that the Victorian Historic Shipwrecks Act received Royal Assent in Parliament in 1981.

We will always remember Terry for his passion, enthusiasm, his enormous contribution to the development of maritime archaeology in Australia, diving skills, big heart, big laugh and great love for all of his many friends and family.

Ross Anderson

AIMA NEWS

President's Report

The big news for AIMA this month is the sad and untimely loss of AIMA Councillor Terry Arnott, whose life of achievements and enormous contribution to maritime archaeology in Australia is discussed elsewhere in this issue.

AIMA, ASHA and AAA Presidents have been working together to write jointly to State and Federal government departments, consultants and politicians on various issues.

The Burrup Peninsula developments in northwest Western Australia saw a joint letter being written to Minister Turnbull the Minister for Environment and Water Resources requesting heritage protection and controls for the Burrup, that could be achieved by a National Heritage Listing for this very important site. The possibility of submerged Aboriginal rock art was raised as a significant issue given the port developments, rock blasting and dredging proposed for the area. A previous letter to the outgoing Minister Campbell received no reply.

Comments were also sent to the Western Australian government Department of Housing and Works via their consultants Palassis Architects on the Cossack Draft Management Plan, which fails to provide for any archaeological controls on the proposed residential and commercial development of this heritage site. As yet no reply has been received to this letter.

A letter was also sent by AIMA to Minister Turnbull on the urgency and importance of Australia ratifying the UNESCO Convention for the Protection of Underwater Cultural Heritage if Australia is to have any

involvement on the 20 country Scientific Advisory Committee. At present 14 countries have ratified the Convention leaving only six places on the Committee.

Internationally AIMA's letter (and from other institutes such as ACUA and SHA) to the St Helena government (a British Overseas Territory in the Atlantic Ocean) have resulted in that government deciding not to issue a licence to ocean salvage company Deep Trek, instead opting to preserve its heritage and seeking advice on archaeological best practice to manage their shipwreck sites in a responsible and sustainable way, and keep their rich maritime cultural heritage within the St Helena community.

In a kind of cross-cultural maritime archaeology tag team the editorial duties for the AIMA newsletter have shifted from an Australian maritime archaeologist in the United States to a US maritime archaeologist now based in Australia! Thanks to Nathan Richards for his editorial role in publishing the newsletter over the last years, and welcome to Jennifer McKinnon who will be undertaking the role from this newsletter onwards. We will miss Nathan's abilities and contributions, and trust he will keep in touch from his post in East Carolina.

Ross Anderson

Secretary's Report

Content On-line payments for membership subscriptions and renewals

An application to Westpac's Merchant Facility Unit to allow AIMA to accept payments on-line has just been approved. This facility will allow direct payments for new subscriptions and for current members to renew their memberships on-line. Members will be informed when this facility is ready to be used – but it should be ready before the next financial year's membership renewal takes place.

World Archaeological Congress (WAC) discussion list

In January this year, an intense debate on the WAC discussion list took place regarding ethical issues surrounding the selling of artefacts recovered from archaeological sites, in particular shipwreck sites. The WAC list comprises some 1,400 individuals from around the world so a wide audience would have witnessed the debate over the two weeks it occurred. It had emerged in response to a Hawaiian-based AIMA member, also a member on the WAC list, who highlighted his concern over a commercial salvage company advertising for an underwater archaeologist through a well-known American-based archaeology list. The member was particularly concerned that new graduates could mistakenly believe that work they were expected to do – should they get the job – was archaeological in nature rather than commercially driven. It was disheartening to learn that there existed individuals on a professional archaeological discussion list who held views that selling artefacts from archaeological sites was not a problem as long as they were documented before sale took place. However, a significant number of members on the WAC list from around the world supported the AIMA member in his actions to raise awareness about the truth of what some companies do with shipwreck relics they raise from the seabed. Other AIMA members (who also represent other archaeological associations) subsequently entered into the discussions, which, many long-standing AIMA members will be aware is not a situation new to AIMA. AIMA Secretary Jen Rodrigues has kept a record of the discussions on the WAC list regarding this issue. Any AIMA member interested in a copy of this may contact the Secretary.

Sale of back issues of AIMA publications

The sale of back issues of AIMA publications have increased dramatically since the drop in price for AIMA members, particularly in the last few months. Myra Stanbury has spent a considerable amount of time in sorting out these orders and organising the packing and mailing, most of which are bulk orders. A stock take will need to be carried out soon and during this time, all publication orders will be delayed until the stock take is completed. Members will be kept informed when this happens. Sincere thanks to Myra for her time in dealing with all AIMA publication orders and being so organized with the process despite the dramatic increase with the orders in recent months! Thanks also to Jason Raupp of Flinders University for assisting AIMA with the sale of Bulletins and Special Publications at Flinders, and to Ross Anderson for organising delivery of those publications.

Donation of AIMA publications to University of West Florida

In December 2007, AIMA donated a set of Bulletins and Special Publications to the University of West Florida, which will (if not already) be accessioned into its research library. The request was an initiative of Flinders University staff member Jason Raupp, a former student at UWF, who felt that the availability of publications on Australasian and Pacific maritime archaeology would be a very useful resource for its students in increasing awareness of maritime archaeology in this region.

Australian Archaeology Conference 21-26 September 2007, Sydney

Members are reminded to take note of datelines regarding sessions, papers and early bird registrations for the conference as these datelines are fast approaching. The 'Call for papers' dateline is less than a month away (30 April!) and early bird registrations closes on 31 July.

Publications for AIMA Bulletin Volume 31

Members are reminded that end of March is the dateline to submit papers for publication in the next volume of the AIMA bulletin. This may include papers presented at the recent conference in Darwin or papers based on academic or other research projects. Anyone with an interest to publish material that is not yet ready or have any queries should contact Myra Stanbury (Myra.Stanbury@museum.wa.gov.au).

Return copies of Bulletin volume 30

Several issues of volume 30 have been returned due to change of addresses with AIMA members. It has not been possible to track these people (except 1!). Members are reminded to inform the Secretary of any changes in contact details particularly mailing addresses. It is not sufficient to inform any other member of the Executive – your details do not get changed in the membership database unless the Secretary is informed.

Email problems

The AIMA Secretary's Museum email has been – and still is – experiencing some serious problems since January. It was possible to receive emails but majority of responses could not be sent out. As a result, there have been severe delays with replying to a number of queries from AIMA members. Sincere apologies for this. It has also not been possible to access emails in March though steps are being taken to fix the problem. All queries will be dealt with once the problem is rectified. Thanks to Admin Officer/Treasurer Peta Knott who has assisted with some of the backlog of replies on behalf of the secretary.

Jen Rodrigues

AUSTRALASIAN NEWS

NEW SOUTH WALES

Heritage New South Wales

Dunbar commemoration plans in 2007

David Nutley advised of preliminary plans to mark the 150th anniversary of the *Dunbar* disaster on 20 August 2007. NSW Police Rescue Squad has expressed support for a proposal to re-enact the recovery of sole survivor James Johnson from the cliff top. Possible other events could include a Heritage Office diving survey of the wreck and visitation by a historic vessel from the Sydney Heritage Fleet. Sterling Smith advised that the Australian National Maritime Museum will put additional *Dunbar* relics from their collection on display in the Age of Sail gallery. The museum will also hold several seminars and will also undertake a dive at the wreck to obtain quality digital footage. Tim Smith noted an opportunity to promote the *Dunbar* State Heritage Register listings and to perhaps coincide with additional site listings such as the Dunbar memorial stained glass windows removed from St Mary's Cathedral.

Midget submarine attack 65th commemoration in 2007

Tim Smith attended a second meeting of the Defence Heritage Working Group under the Chair of the Department of Environment & Conservation on 13 December. Preparations for an intra-agency commemoration of the anniversary are underway in conjunction with RAN Heritage Centre. The most likely event is a heritage cruise re-enacting the route of Ban & Ashibe in M24 that will involve presentations by Tim Smith and staff. Other events will include an open day at Cockatoo Island by the Sydney Harbour Federation Trust and visit to Navy heritage centre with Cdr. Shane Moore. At the conclusion of the meeting, the Committee endorsed a proposal to invite Tim Smith to represent the Heritage Office formally on the Panel. This was agreed.

2007 Archaeological conference in Sydney

David Nutley discussed the dates for the conference have now been finalised (21-26 September 2007) and the conference organising committee has established a web site (www.newground.org.au). The focus will be on sharing the results of groundbreaking research, making connections between the diverse array of archaeologies practiced and on setting directions for future studies, promotion and conservation practice in Australian archaeology. An invitation has been sent out requesting proposals for sessions and session organisers. Any suggestions should be emailed to info@newground.org.au. Should MAAP members be keen to participate, please contact David Nutley.

Ship's timbers ashore (Umina and Wreck Bay)

D. Nutley noted that work is continuing on this project and has resulted in obtaining a lead on a possible site location through a local trawler operator. Pending weather and boat availability, a survey will be conducted in early 2007.

Regarding the ship's timber at Wreck Bay, Tim Smith inspected same at the Jervis Bay Marine Parks office in December and recovered a small timber sample for analysis. The ship's timber was small in size and likely not to belong to the convict ship *Hive*, wrecked in the general vicinity of the find. The Heritage Office is still awaiting the Wreck Bay timber identification results.

Additional wreck inspector appointments

The Heritage Office is liaising with the Department of Environment & Water Resources in Canberra regarding additional appointments of Wreck Inspectors under the Historic Shipwrecks Act. Potential appointments include additional Marine Parks Authority personnel, Maritime Authority personnel and Heritage Office maritime archaeological staff, although the latter would require some specific training enhancements first.

M24 midget submarine: discovery and site management strategies

In November 2007 a Channel 9 "Sixty Minutes" report was aired advising that a group of club divers from 'No Frills Divers' had found the wreck of the WWII Japanese Midget submarine that escaped from Sydney Harbour following the raid in 1942 on 12 Nov 2006. Subsequently, the Heritage Office and the (then) Department of the Environment and Heritage (now Department of Environment and Water Resources) have been working together, in association with representatives of the Japanese Government, to provide a prompt and effective response to protect the site. This has included enacting statutory protection under both State and Commonwealth legislation and the installation of surveillance systems commissioned from Sonacom Ltd. Long term options for the site are currently being developed.

Since M24's discovery in over 50 metres of water just three miles offshore from Sydney's Newport Beach, the Heritage Office has been actively involved in the protection and management of the site. The initial task was to apply heritage legislation to the site as the wreck was 'younger' than the automatic 75-year inclusion under the Commonwealth *Historic Shipwrecks Act* 1976. The site is now a Protected Historic Shipwreck under that legislation with a 500-metre radius No Entry Protected Zone gazetted around the site. The NSW (State) *Heritage Act* 1977 also applies to the wreck which was gazetted with an Interim Heritage Order (IHO) on 1 December 2006. Penalties up to \$AUS1.1 million apply for disturbance to the remains. The Heritage Office assisted the Royal Australian Navy in confirming the site on 27 November 2006 with an ROV inspection from a Royal Australian Navy minehunter, HMAS *Yarra*. Tim Smith presented a briefing to the Chief of the Japan Maritime Self Defence Force and staff and the Chief of Navy, VADM Shalders AO CSC RAN during Heritage Office support to a formal wreath laying ceremony over the site, aboard HMAS *Newcastle* on 7 February.

Since January the Heritage Office has coordinated sidescan sonar surveys of the wreck and additional ROV inspections which have met with some variable sea conditions and equipment issues. Additional ROV inspections were completed using a visiting US Navy deep sea ROV in mid February 2007. As mentioned, a sophisticated sonar detection system monitors vessel traffic around the site installed by Sonacom Ltd and jointly funded by the Commonwealth and State Governments.

Wreck condition: The *M24* wreck site sits upright on sand, almost half buried and largely intact. Fishing nets have removed the propeller guards and rudders, all fairings of the conning tower, including the access tube, hatch and net cutters (the latter elements remain in the debris field). At the bow, a remaining net has removed the bow guards and cutter, which is lying in a debris field extending away from the bow. The upper torpedo tube has been torn off to the



Loading ROV into the water

bulkhead. A large split in the hull is evident aft of the conning tower near the bulkhead that separates the conning tower and aft battery compartment. Research at present is concentrating on any evidence of battle damage, the nature of the two unexploded scuttling charges (increased after the pearl Harbour raid), and the possibility that human remains (Sub Lieutenant Ban and Petty Officer Ashibe) may still be retained within the structure. The conning tower compartment is almost totally filled with sand, while the aft battery room is largely clear. The discovery of this midget adds significantly to those sites presently located underwater, including a Type A in 20 metres of water in Papua New Guinea, the 400-metre deep Pearl midget, the fragmentary remains of one of the Madagascar boats, and a semi-submerged wreck at Kiska Harbour in the Aleutians.

AE2 Expedition MRTE, Queenscliff, VIC, 4-7 February 2007

A *Mission Rehearsal and Training Exercise* was undertaken by the AE2 submarine Turkey project team at the J-class submarine wreck J5 in Melbourne (4-7 February 2007). The complete Australian specialist team was present to practice all survey taskings as part of the September 2007 expedition planning for Turkey. ABC TV's "7.30

Report” featured the work in the week of 5 February together with print media. The team proposes to deploy to Turkey in September 2007.

David Nutley

NORTHERN TERRITORY

Charles Darwin University

Broome 65th air raid commemoration – some reflections

Sixty-five years ago Australia suffered its first Japanese air raids that devastated Darwin in the Northern Territory. Nearly two weeks later the Japanese, instead of using a sledge hammer to smash an egg, which is how they described the attack on Darwin, conducted two surgical strikes against the north Australian towns of Broome and Wyndham on 3 March 1942, using a small force of Mitsubishi Zero fighters and reconnaissance aircraft. On 3 March 2007 I attended a commemoration ceremony at Bedford Park in Broome. This is a brief report of the commemoration event for the Broome air raid, in terms of its significance to the survivors and to understanding its resultant archaeology. This was a special visit back to Broome for me too. Rather than looking for wrecks, this time I came to meet some of the passengers that were on the flying boats that I am studying for my thesis. It was a privilege to meet more of the air raid’s surviving participants, since first meeting pilots and aircrew in 2001.

Approximately 2,000 people attended the 65th commemoration ceremony in Darwin, which marked the 19th February 1942 air raids. On that day, 188 Japanese carrier and land-borne aircraft killed approximately 290 people, sank seven ships and three Catalina flying boats in Darwin Harbour and two ships and one Catalina near Bathurst Island. In contrast to this massive force aimed at Darwin, only nine Zero fighters and a reconnaissance aircraft were sent to Broome, ostensibly to destroy all aircraft at the Broome aerodrome and in the general area. Unknown to the Japanese, fifteen flying boats from the *Marineluchvaartdienst* (Royal Netherlands Naval Air Service, or MLD), the Royal Australian Air Force, the Royal Air Force, the United States Navy and Qantas Empire Airways had through an unfortunate coincidence, become juxtaposed in Broome. The Dutch and English flying boats had just arrived from Java (The Netherlands East Indies, now Indonesia) and were awaiting fuel to continue their flights to Australian cities down south. The sight of this aerial armada would have been something to behold. Some of the MLD flying boats were packed with refugees, women and children, mainly the families of high-ranking military personnel, or of the flight crews and the families of maintenance staff.

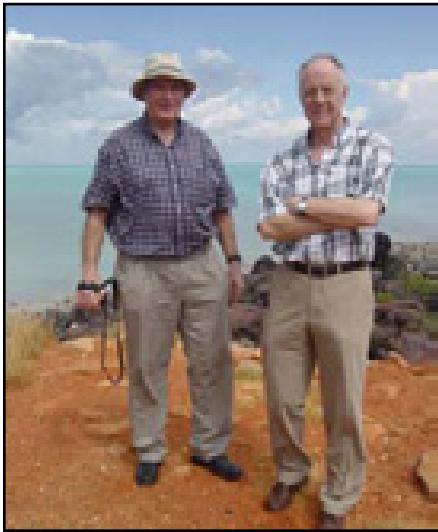


Air raid commemoration service at Bedford Park

The Japanese destroyed all of the aircraft at the aerodrome, including a United States Army Air Corps B-24A Liberator that had just taken off, loaded with medical evacuees. Thirty-three people were killed in the Liberator, while all of the flying boats on Broome’s Roebuck Bay were sunk, resulting in the deaths of approximately 70 Dutch men, women and children, as well as service personnel from a RAF Catalina. It was the darkest day in the history of the MLD. However, 65 years after the air raid, two of the surviving passengers of the flying boats, especially came back to Broome from the Netherlands to commemorate the horror that they experienced and not to forget the people who were killed. They were also joined by a member of the modern day MLD, Cpt Carl van Haarstert and Lt/Col (Army) Caro Lefevre, who is currently the Netherlands Defence Attaché in Canberra.

For the first time since the air raid, Lt/Commander (retired) Theo Doorman, the son of Rear Admiral Karel Doorman (who was killed during the Battle of the Sunda Strait a few days before the Broome air raid) came back to Broome to provide himself with a sense of closure to the horror he saw. He was accompanied by his wife, Gonne, who herself was made a Prisoner of War under the Japanese in Java. Theo was evacuated with his mother, Isabelle, on the Catalina Y-67 and was wounded in the attack, which he remembers quite well – he was six years old at the time of the air raid. The other survivor who returned was Cpt. (retired) David Sjerp, the son of LTZV 2 Bastiaan Sjerp who was in command of GVT-7 (aircraft group 7) comprising of the Dornier Do 24K X-1 and X-20. David and his family were on the X-20. He was only sixteen months old at the time of the

air raid. There were no aircrew attending the commemoration ceremony in Broome, all of who are now too old to face the long and arduous journey to Broome.



Lt/Commander (ret.) Theo Doorman and Cpt. David Sjerp (ret.) standing at jetty where 65 years ago they came ashore.

Unlike the Darwin commemoration ceremony, Broome's commemoration was a small affair, with some sixty people attending. After the ceremony Theo and David went to visit the Broome Historical Society Museum. Theo was shown photographs of a number of artefacts at the museum, prior to his arrival in Broome. One of the artefacts he remembered was a toy aeroplane. Unfortunately the aeroplane was on loan to the Australian War Memorial at the time of Theo's visit, but he could remember other toys that his mother had packed for him during the hurried evacuation from Java. One would think that if given only an hour's notice to leave your home that people would grab photographs, passports, title deeds, money, clothes, jewellery, but Isabelle it seems, grabbed a suitcase half full of heavy lead toys. She probably needed to, to coax Theo to come along!

It was remarkable seeing Theo holding his toy soldier again, after 65 years. He had come full circle and was ecstatic to be able to re-establish a link with his

past through this toy soldier. This is wonderful for the aviation archaeology of Broome too, for it re-establishes the lost provenance of the artefact. Broome, however, in my opinion has suffered a second tragedy in which people have been removing artefacts from the flying boat wreck sites without recording their provenance. Although some of the toys in the Broome museum can now, with reasonable certainty be linked to the person that owned them (Theo), the location from where those toys came from, was not recorded. Diagnostic artefacts, some marked with the aircraft serial number that they came from, have been the main source of evidence to identify which-flying-boat-is-which in Roebuck Bay. With the continued vandalism perpetrated by antiquarian collectors, it would seem that identifying wreck sites on the basis of artefact evidence would become harder as the archaeological resource diminishes. I hope that as the commemorations continue through time, that they will become more and more significant, especially to the families that suffered as a result of the air raid. Let's hope that there will be some material record left in Roebuck Bay to provide them as well as others interested in this unique aspect of Australia's aviation heritage, with a tangible reminder of that tragic event, as there is currently no management of the archaeological resource in Roebuck Bay, despite the wreck sites having been formerly protected under the *Heritage of Western Australia Act 1990*.

Silvano Jung



Doorman holding a toy soldier who he believes was his at the time of the air raid.

Heritage Conservation Services, Northern Territory Government

Discovery and assessment of C-47 plane wreck

In late 2006 Shaun Uden, a local diver and fisherman, discovered the wreck of A65-115, a C-47 plane that crashed in Darwin Harbour waters on the 5th September 1946. A65-115 was attached to the RAAF No. 36 squadron and was part of an air courier link between Australia and Japan operating immediately after WWII. The service ran tri-weekly providing supplies and mail to the Australian component of the British Commonwealth Occupying Force. The route consisted of a series of island hops for refuelling and was a round trip of 20,000 kilometres. No. 36 squadron also brought back freed Australian prisoners of war, and it is possible (although not confirmed) that A65-115 was involved in this important work.



The crew of the first Douglas C47 Dakota aircraft on the regular courier from Australia to Japan (Australian War Museum OG3820)

On a test flight over Darwin, prior to a departure for Japan, the starboard engine of A65-115 bled fuel and caught on fire. Then the port engine started to lose power and the pilot resolved they would not reach the airstrip and ditched the plane into the harbour. The Captain and crew of four managed to escape the burning plane before it sank to the seabed 18 metres below. The plane was forgotten soon after and discovered only recently.

On the 9th March 2007 the Heritage Advisory Council (HAC) determined that A65-115 was of sufficient significance to recommend to the Minister that it be included on the NT Heritage Register. The remains of A65-115 were measured against the *Guidelines for the assessment of plane wrecks* recently prepared for and being trialled by the HAC. The guidelines provide a rating structure for aircraft wreck integrity, with

reference to the various corresponding research questions applicable to the various degrees of integrity. A portion of the draft Statement of Heritage Value reads:

A65-115 has a particularly high degree of intactness. The wreck retains much of the plane's original structural integrity and has a rare ability to illustrate reasons for and aspects of the crash. The site may also retain a valuable artefact assemblage consisting of onboard equipment and the personal belongings of crew.

Historic photographs of life aboard the Booya

The *Booya*, an historic shipwreck located in Darwin Harbour and that went down in Cyclone Tracy in 1974, was previously named the *Argosy Lemal* and functioned as a radio communications vessel during World War II. Evan George was assigned to the vessel in 1942 and the crew of 12 were made up of Australians, Americans, Norwegians, Scandinavians, Scots and English. They served under the US Small Ships Section. Evan, 18 years old, took a number of photographs with his box camera, providing an invaluable glimpse of this period in the ship's working life. The images are of life aboard and show technical aspects of the vessel's deck. There are plans for Evan's photographs to be accessioned into the NT Library's image collection.



Forward deck of the *Argosy Lemal* taken from the bow, 1942 (courtesy of Evan George)



Some of the crew at the bow, Evan George second from front, 1942 (courtesy of Evan George)

David Steinberg

QUEENSLAND

Museum of Tropical Queensland

Pandora site inspection

In August 2006, with funding from the Historic Shipwrecks Program, Queensland Museum researchers returned to the HMS *Pandora* site after an interval of approximately seven years. Len Zell, Ed Slaughter, Warren Delaney and Andrew Viduka conducted an inspection of the site. In total eight dives were made on the site, four by each team member. Feature elements on the site such as stern anchor, stern sheathing, oven and bow anchor were visited, inspected and photographed. All objects were found to be in good condition and were described by Warren, who has now done 180 dives on the *Pandora*, as in 'identical' condition to that seen during the 1999 fieldtrip. In his view the site looked as well covered by sand today as it did in 1983 when the first photo mosaic was conducted. Scouring near objects was minimal and mainly based at the starboard side bow end. This scouring would seasonally change with the direction of prevailing conditions. No Hessian or bagging used to cover the excavated areas was visible.

Archaeological infrastructure near the site was also inspected, this includes the baseline and centreline poles, grid squares, cement filled 5 gallon drums and plinth. The infrastructure was checked for its presence, condition and verticality. Whilst a number of the datum poles are leaning into the site, the majority of the infrastructure is there and in good condition. Queensland Museum will continue to monitor the site on an opportunistic basis.

Old Salts

The Historic Shipwrecks funded Oral History Project, *Old Salt's, Alternative Lifestyles & Beach Bums*, was completed in 2006 by Ed Slaughter. This project documented the lifestyles of Queenslanders who have lived &/or worked in the maritime realm. Since 2004, 50 individuals from all over coastal & offshore Queensland were interviewed via digital audio & audio-visual mediums. A diverse range of stories and views were collected from skippers and crews, former lighthouse keepers, professional & amateur fishermen, spearo's, former Tangalooma whaler's, yachties, pioneer scuba divers, marine scientists, shipwreck survivor's, surfer's, shark catcher's, tourist operator's, island drop outs, & many others. The project recorded early experiences diving & spear fishing on wrecks such as *Scottish Prince*, *Cambus Wallace*, *SS Yongala*, & *HMS Pandora*. The oral histories collected from 'Old Salts' are now being used to inform Queensland Museum displays, websites and research. In the future, it is hoped that the oral histories will be publicly accessible via the internet & at the John Oxley Library, Brisbane.

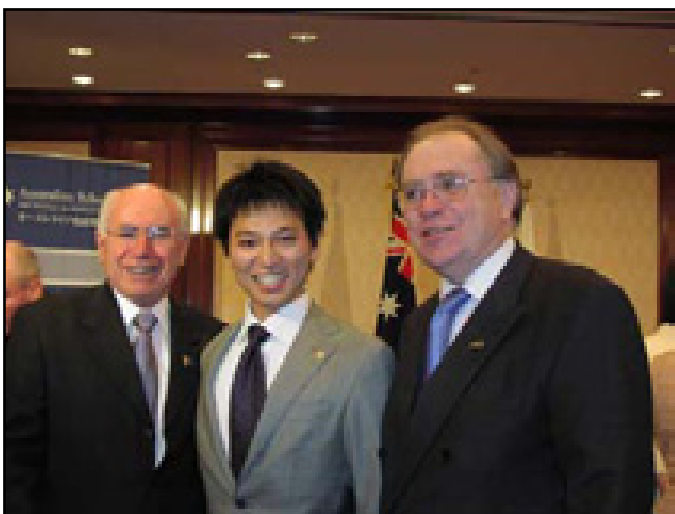
SS Yongala

Fieldwork and site management is ongoing at SS *Yongala*. Recently a new contractor was appointed for maintenance of the moorings up until January 2009. Andrew Viduka is undertaking a corrosion study of the wreck and plans to have preliminary results by June. In conjunction with this research the Queensland Museum is assisting scientists at JCU and AIMS in research on the marine fauna of the site.

Andy Viduka

SOUTH AUSTRALIA

Flinders University



Jun Kimura with Prime Minister John Howard

It seems like a decade has passed since the last Flinders University news update was submitted to the AIMA newsletter. Perhaps it's because so much has happened in so little time. Although we had a long semester and holiday break, we managed to keep busy with the wrap up of Semester 2, thesis submissions, field projects, the planning of field school and conferences to name a few.

Congrats all around

The Archaeology Program is happy to announce the addition of yet another staff member. **Congratulations** and welcome to Ian Moffat our new Research Fellow and Adjunct. Ian Moffat has worked with the maritime program for the last few years teaching geophysics, sedimentology, and site formation processes. **Congratulations** and good luck to Emily Jateff, Bill Welsh and

Dianna Zwart who graduated with their Masters degrees in second semester 2006. **Congratulations** and good luck to the incoming class of Semester 1 2007: Kenny Keeping, Ben Holtorf, Jennifer Haigh, Anne Haughton, Darren Kipping, John Schlobohm, Jody Bulman, Matthew Carter, Andrea Smith, Andy Viduka, Darren Cooper and Harry Watts. **Congratulations** to Deb Shefi for being awarded the 2006 Master of Maritime Archaeology Alumni Prize for the highest GPA in the Master of Maritime Archaeology degree and to Amer Khan who won the 2006 Maritime Archaeology Staff Prize for the highest thesis mark. Finally, **congratulations** to Jun Kimura a recent MMA graduate who was awarded an Endeavour Scholarship to return and study for his PhD – we look forward to having him come back.

Recent Projects

Port Albert Practicum

In October 2006 graduate students had the opportunity to participate in a field project in conjunction with Heritage Victoria at Port Albert. Students investigated the sites of historic shipwrecks (*P.S. Clonmel*, *P.S. Thistle*) and took part in preliminary investigations of an historic landing and settlement site associated with the Victorian Gold Rush.

Port Phillip Practicum

In November 2006 graduate students participated in a field project in conjunction with Heritage Victoria and the Maritime Archaeological Association of Victoria (MAAV) in Port Phillip Bay. Students investigated the sites of several historic shipwrecks to determine their current condition, and took part in preliminary investigations of an historic 19th century spring water facility near Geelong. Students also made a lines plan of an historic lifesaving boat housed at the Queenscliff Maritime Museum.



Port Phillip crew (from left) John Ricci, Jennifer McKinnon, Hanna Steyne, Toni Massey, Keiran Hosty, Lee Graham, Rick Bullers, (bottom) Cass Philippou, Liz Kilpatrick and Dianna Zwart.

Preservation Island Project

In December 2006 Flinders University graduate students participated in the excavation of the survivors camp from the *Sydney Cove* wreck (1797) on Preservation Island, Bass Strait. The project was organised and conducted by Mike Nash, maritime archaeologist with Tasmanian Parks and Wildlife Service. The 10-day excavation yielded many concentrations of pottery, glass, bone & metalware fragments.

Search for E.H. Purdon Project

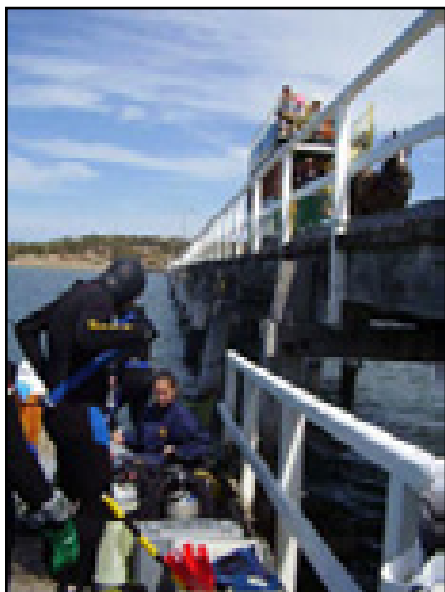
At the conclusion of the *Sydney Cove* survivor camp excavation, Flinders staff and students conducted a search for the historic ketch *E.H. Purdon*, wrecked on the east coast of Flinders Island in 1938. Three wrecks are known to have wrecked in the vicinity. The disjointed remains of two vessels were found in the dunes at Sellars Point and were recorded. A proposed magnetometer search for the third site was not conducted due to adverse weather conditions covering the transit marks to find the general location.

Dorothy H. Sterling Project

As a part of her thesis research, graduate student Karson Winslow organized a four-day project to record the six-masted schooner *Dorothy H. Sterling*. *Dorothy*, as Karson lovingly calls her, is located in the ship graveyard at Garden Island, Port Adelaide. The project was a great success and the crew managed to record most of the exposed hull at low tide. Jeremy Green visited the project as did the ABC news crew.

Field School

The 2007 Maritime Archaeology Field School took place at Victor Harbor, South Australia during the first two weeks of February. Field School began with a two day AIMA/NAS training course in which members of the general public also participated in. Then it was off to Victor Harbor. Students investigated a number of maritime sites on land and underwater including the Granite Island historic causeway and baths, an 1891 three-masted schooner MV *Showboat* on Hindmarsh Island, the jetties, fishers' caves and *Star of Greece* at Port Willunga, and geophysics surveys at Port Elliot and Middleton Beach. Field school highlights included a BBQ and



Students gearing up on causeway.

watching a yacht race at the Armfield Slipway where historic vessels are lovingly restored by a devoted group of volunteers, a visit from Mr. Grant Rigney from the Indigenous Camp Coorong, and a visit to an early twentieth century shipwreck salvage camp associated with the wrecking of MV Victoria at Tunkallilla Beach.

If you would like to read more about the field school, check out the online Museum of Underwater Archaeology website for student journal entries and photos at: http://www.uri.edu/artsci/his/mua/project_journals/flinders/flinders_intro.shtml. Special thanks to Kurt Knoerl who designed and updated the website. Also thanks to the South Australia Department of Environment and Heritage's Rick James and Heritage Victoria's Pete Harvey for providing staff and logistical support.

Other news

The Society for Historical Archaeology annual conference was well attended by Flinders University students and staff. Jennifer McKinnon, Linda Honey and Bill Welsh organized a symposium at the meetings in Williamsburg, Virginia, USA in January 2007. The symposium entitled "Aspects of Maritime Archaeology from Australia" included eleven papers from students and staff.

The 2006 Flinders Underwater and Maritime Archaeology Newsletter (FUMAN) was printed in December 2006. It contains all of the past year's news on projects and happenings here at Flinders. A special thanks to the editors, Jason Raupp and Karson Winslow, and all the students who contributed articles to make it happen. Online copy: http://ehlt.flinders.edu.au/archaeology/research/publications/FUMAN/FUMAN_2006_A4.pdf

A book launch for the new MAMS (Maritime Archaeology Monograph Series) was held recently and launched by Western Australia's very own Jeremy Green. The launch was publicized and aired on channel ABC.

Maritime archaeologist Chuck Meide of the Lighthouse Archaeology Maritime Program in St. Augustine, Florida paid a special visit to Flinders University. Chuck flew from Florida to help teach the field school in preparation for helping to organize and teach our very first international practicum which will occur in July 2007. Chuck was a great help at field school and we look forward to working with him in July.

VICTORIA

Heritage Victoria

It has been a very hectic start to the year for Heritage Victoria's team. We've had plenty of fieldwork and training, as well as getting up to speed on database issues. Some fun, lots of wind, and definitely a smattering of administrative stuff.

Heritage Victoria's Artefact Database Available On-line through CAN

December saw us farewell archaeologist Lucia Lancellotti-Kirk once again. Lucia was contracted for 3 months to work with the Conservation Lab, Maritime Heritage Unit and Historical Archaeology Unit to make Heritage Victoria's Artefact and Conservation Database available on-line through the Collections Australia Network On-line Database. Researchers can now access limited information on the archaeological objects registered with Heritage Victoria at <http://www.collectionsaustralia.net/collections/> and of course are welcome to visit the Lab to undertake further research.

Training Courses Galore!

MHU staff have continued their training frenzy, busily improving their field (and admin) capacity over recent months by undertaking a series of courses. Cass Philippou completed her Coxswain's Certification in February, and the entire team have done Level 3 First Aid training (watch out for excited staff carrying defibrillators!). Hanna's been getting up to speed with Victoria's Indigenous communities, and Cass was even sidelined into a 'writing for government' workshop (has it made a difference??). Next up are 4WD courses. What'll they think of next?

MHU & Flinders Uni Fieldschool

Peter Harvey travelled to South Australia to assist the Flinders Uni Maritime Archaeology Fieldschool, with boat support in February. Following the sad passing of South Australia's Senior Maritime Heritage Officer Terry Arnott, the Flinders staff were in rather a pickle without guaranteed use of a boat to help with diving operations, so Peter towed 'Cecil' the *Stessl* over to SA and helped with the fieldschool for one week. Word has it that some students need to learn how to set up shark shields to avoid shocking the lecturers (Jason Raupp's hair will never recover).

Memorial Service for Terry Arnott - 10 March 2007

Terry Arnott's family expressed a wish to scatter Terry's ashes on the *City of Launceston* site in Port Phillip Bay in March. The MHU worked with Brad Duncan and Doug Arnott-Lewis to set up a memorial event on the bay with Terry's family and friends. Heritage Victoria provided *Trim*, and Marine Training Services provided *Delphinus* for a very small fee (donated by an anonymous local) to get more than forty people out to the site. A few divers from the Geelong Skindiver's Club brought small boats along as well.

The memorial was timed to coincide with the 25th Anniversary of the Royal Assent to Victoria's original *Historic Shipwrecks Act*, which first came into force on the 10th March 1982. Terry was one of the co-finders of the *City of Launceston*, and the discovery of this significant site was the driving force behind the drafting and acceptance of legislation to protect Victoria's shipwreck sites. The day was a fitting tribute to Terry's enthusiasm and involvement in searching for, locating and protecting Victoria's historic shipwrecks.

Shipwrecks in Hermes

The MHU is working with IT contractors to transfer the current Lotus Notes shipwreck database into Heritage Victoria's place management database 'HERMES'. This multi-million dollar database manages all of the places on the Victorian Heritage Register and Inventory. While shipwrecks have always been included in the Register, they will now be managed from a platform adjacent to the HERMES system, rather than separately. This will enable shipwreck data to be viewed alongside relevant land based sites to provide a more holistic approach to managing coastal and marine sites, and will also be the catalyst to a clean-up of erroneous data.



The view from Wilsons Promontory

Wilsons Promontory Fieldwork February/March 07

The MHU were joined by a group of volunteers for another season working out of Refuge Cover at Wilsons Promontory. Flinders University's Jason Raupp skippered *Stessl*, and was teamed up with Flinders Uni Master's students Agnes Milowka and James Parkinson. Former HV staffer and current HSAC member Shirley Strachan also joined the team for the duration. MAAV volunteers Peter Taylor and John Howell popped down for 5 days, but missed out on a dive due to uncooperative weather. Two other MAAV members, Malcolm Venturoni and John Osmond also steamed in for a super-quick visit on Saturday 3 March.

The aim of this trip was to revisit sites that had not been inspected for many years, as well as undertake more surveying on the *Cheviot* (1854) in Waterloo Bay. Being *Trim*'s first trip down to the Prom, we were reliant upon GPS positions from the old MAU 003. Transits for the site were excellent, the GPS positions were good, but the new multi-coloured Furuno sounder doesn't provide the grey-scale 'Christmas tree' depiction of the site like the old Lowrance sounder. After a little steaming about, three divers dropped in on the 'Cheviot' and popped up minutes later announcing they had just dived a large admiralty anchor. The anchor was located approximately 100 metres south-west of the actual wrecksite. The team then relocated the true position, and went about obtaining more detail on the mid-ships concretion, now fully confirmed to be parts of the bilge-pumping system. As we could not get back to Waterloo Bay, the anchor remains unrecorded. The anchor may be from the *Cheviot*, which was lost in a south-westerly gale, or possibly from another wreck site such as the unlocated British built schooner *Richard and Ann*. Alternatively it may be an anchor lost from one of the many vessels that used Waterloo Bay as an anchorage during the nineteenth century.

A quick visit to Waterloo Bay by MAAV's Malcolm Venturoni and John Osmond on the second day of diving provided extra diving support for the campers (and some wine, cheese and biscuits, thanks lads!), as well as the opportunity to obtain side-scan sonar data of the *Cheviot* shipwreck site. John's eagle eyes spotted what is thought to be part of a flensing knife in the brick pile near the bow, adding further evidence to this site's on-going use as a whaler. Big swells and easterly winds prevented the team from going back to the site to recover the knife, which will remain *in situ* until the next Prom trip.



John Howell, Cass Philippou, Hanna Steyne and Agnes Milowka

Rough on-shore winds and inconvenient high tides would not allow access to Miranda Bay to view the intertidal remains of the Tasmanian-built brigantine *Miranda* (1852), and the barque *Tomatin* (1865) at Johnny Souey Cove was also elusive. The weather gods were definitely not on our side this trip, as the steamer *Lady Mildred* (1909) was exposed to the nasty south easterlies and could not be accessed either.

To keep everyone busy the team ventured north to Miranda Creek at Five Mile beach to relocate the remains of the *Elmgrove* (1876); only a single piece of wrought iron was located near the river mouth, with some timber attached. The more substantial remains of the *Elmgrove* which were recorded during the 1980s were not seen, and it is believed they are buried by sand at the mouth.

A hike to Sealers Bay enabled close-up inspection of the remains of the timber-getting jetty, and the ever-inquisitive Jason Raupp undertook an inspection and survey of the archaeological remains in the scrub at Refuge Cove.

All this provides another reason to head back to the Prom for further wreck inspections in the next couple of years!

Cass Philippou

WESTERN AUSTRALIA

Western Australian Maritime Museum

Batavia National Heritage List (NHL) fieldwork 1-9 February 2007

Staff members Corioli Souter, Wendy van Duivenvoorde and Ross Anderson, along with University of Western Australia Archaeology Department lecturer Dr Alistair Paterson, geophysicist Tristan Campbell from Geoforce, surveyor Jochen Franke and UWA student Daniel Monks, visited the Wallabi Group for the purposes of National Heritage List fieldwork, to assess the terrestrial sites of the Wallabi Group related to the *Batavia* (1629) wrecking. Assisted and supported by Fisheries WA officers Andy Derbyshire, Matt Robinson and Mark Killock the group travelled from Geraldton on Fisheries new patrol jetboat P.V. *Chalmers* and stayed on Beacon Island.

Significant findings as a result of visual surveys were new well and cairn sites on East Wallabi and West Wallabi Islands, some with artefact scatters (mainly 19th century material probably related to guano mining use of the wells). All existing known and new sites including wells, cairns, structures and fireplaces were recorded with DGPS, noting with interest that in some cases earlier GPS positions for sites taken with Selective Availability (SA) on were up to 200 metres out.

A metal detector and visual survey was continued on Long Island with other potential sites located.

Beacon Island was used to test Ground Penetrating Radar (GPR) equipment. Previous attempts had been largely inconclusive, however this trip a major finding by Tristan Campbell was that the latest GPR equipment worked over a range of disturbed and non-disturbed surfaces and layers, with high potential for further investigative use on Beacon Island.

Archaeological excavations undertaken on the West Wallabi Island coastal structure (also known as 'Wiebbe Hayes fort') under the direction of Dr Alistair Paterson showed that despite extensive excavations and artefact collection by past groups in the 1960s and 1970s, the site does have some remaining archaeological potential. Material including bird and tammar wallaby bones, ceramic and glass fragments and a metal object identified as a book clasp were recovered. However the minimal and fragmented nature of the finds emphasised the significance of the research collection (obtained during the 1960s and 1970s excavations) currently housed in the Museum.

It is planned that all data and findings will be incorporated into a future management plan for the *Batavia* NHL site. Overall the fieldwork was successful in obtaining new information about the *Batavia* terrestrial sites and their archaeological potential, with thanks to the Department of Environment and Water Resources for the NHL funding and the professional support of Fisheries WA.

Taiwan maritime archaeology training course visit

The Institute of History & Philology, Academia Sinica, Taipei, Taiwan invited Jeremy Green, Corioli Souter and Jon Carpenter to present lectures and case studies in maritime archaeology and conservation between 27 February and 3 March. The program was sponsored by the National Centre for Research and Preservation of Cultural Properties, aiming to plant the seeds for future underwater archaeological conduct in Taiwan.

Approval from NAS (UK) and AIMA was sought and received to teach a one off Taiwanese NAS Part 1 course to the participating archaeologists and managers.

The training program consisted of 22 official trainees with an average age of 34, approximately. 30% PhD level, 60% Masters level and the rest from archaeology, history, cultural heritage and marine science backgrounds.

Students received training from US, Japanese, Chinese and Australian maritime archaeology practitioners and other experts in photogrammetry, conservation, underwater cultural heritage policy, Chinese maritime history and archaeology, marine geology, climatology, hydrology and GIS applications.

The course was the first of its kind ever held in Taiwan, and it is hoped it will stimulate ongoing efforts to study, manage and conserve Taiwan's rich maritime heritage.

Cossack developments

The Department of Housing and Works and Heritage Council of Western Australia have released the draft plan for Cossack that can be found on the web at <http://www.dhw.wa.gov.au/cossack/>.

AIMA submitted a letter along with AAA and ASHA and the National Trust, the wording of which is below.

COMMENTS ON COSSACK DRAFT MASTER PLAN (CONCEPT STAGE)

Submitted by:

1. Dr Alistair Paterson, President, Australian Archaeological Association
2. Ross Anderson, President, Australasian Institute for Maritime Archaeology
3. Dr Susan Lawrence, President, Australasian Society for Historical Archaeology
4. Tom Perrigo and Lisa Sturgis, National Trust of Australia (Western Australia)

Thank you for the invitation to comment on the Cossack Draft Master Plan (Concept Stage). We feel that this Draft Master Plan fails to fully realise the responsibility to manage this nationally significant archaeological resource. Clearly Cossack requires a comprehensive management regime with a long-term approach. If the Government wishes to remain in control, the place should be transferred to the National Trust and a Partnership with the Shire be put into place. The National Trust of Australia is the recognised statutory authority for such places. Further to this, we make here a series of general recommendations to assist the development of the Draft Master Plan for Cossack. We have great concerns that this Draft Master Plan threatens the heritage value of the Cossack Archaeological Precinct and is out of step with contemporary heritage practice by locating the development on recognised archaeological sites. There are many examples of successful heritage archaeological precincts to guide us—for example, Port Arthur in Tasmania, Norfolk Island, Jamestown in Virginia (USA)—many of which include dominant historic standing buildings as well as more ephemeral archaeological remains. Overall the Burra Charter (Australia ICOMOS Charter for Places of Cultural Significance) which has been followed by professionals for planning and managing the conservation and compatible modern use of heritage places in Australia since 1979 has not been mentioned or referenced in the

Draft Master Plan.

We feel that the most appropriate approach with a site complex such as the Cossack Archaeological Precinct is to adopt a holistic approach which does not segregate European, Asian, Aboriginal and maritime archaeological sites.

We note limited reference to Aboriginal heritage and no reference to the WA Maritime Archaeology Act 1973 with respect to potential and actual archaeological remains. The precinct has been recognised as a nationally significant site, being listed on the Register of the National Estate as well as having Aboriginal archaeological sites. We feel that the Cossack Archaeological Precinct should be nominated for The National Heritage List, as this includes places of outstanding heritage value to the nation.

In addition, we make the following specific comments related to the Cossack Draft Master Plan.

- 1) The discussion of Aboriginal heritage relies solely on historical accounts, despite there being several research theses and publication into Aboriginal archaeological sites, some of which are not described in this document.
- 2) The WA Maritime Archaeology Act 1973 protects underwater cultural heritage sites and selected maritime archaeological sites that occur in terrestrial contexts such as port related and fishing industry sites. The eventual Master Plan should mention that all of the underwater cultural heritage sites in the Cossack locality are in Western Australian State waters and are potentially protected by the WA Maritime Archaeology Act 1973. Maritime archaeological/ infrastructure sites such as the land-backed wharf built over earlier jetties may also be protected under the the WA Maritime Archaeology Act 1973.
- 3) The zoning plan (p.28) does not discuss 'archaeological controls'. The conceptual framework outlined falls into the trap of segregating different occupations (Aboriginal, European and Asian) rather than finding themes which cut across ethnic boundaries to explore life at this unique historical settlement. For example, the site of Cossack invites comparisons with other colonial ports, both in Australia, as well as overseas, perhaps into the material evidence for how well connected these places were to the broader world, as well as the spatial organisation of settlement, particularly along ethnic lines. Within the Asian region, comparisons could be sought with settlements such as Madras, Bombay, Calcutta, Manila, Singapore, Jakarta (Batavia), Macassar and colonial Shanghai.
- 4) Planning Context and Statutory Framework (p. 45). The Draft Master Plan fails to make any reference to the Australia ICOMOS Burra Charter as a nationally accepted and fundamental guide for compatible development of the township. As a result the Draft Master Plan fails to deal with the dilemma of how to preserve the heritage values of the township while creating new residential development on top of the historical precinct. Further, the Draft Master Plan does not specifically mention 'archaeological controls' as part of the planning framework other than under 'heritage features and places'. The Burra Charter was brought to the attention of planners at the Cossack archaeology focus group as an acceptable national standard upon which to develop the Draft Master Plan.
- 5) The Planning Context (pp.45-47). The Statutory Framework should include the Maritime Archaeology Act 1973 which protects pre-1900 shipwrecks and maritime infrastructure and maritime industrial sites. In terms of Aboriginal heritage no examination of the nature of the archaeological sites is provided.
- 6) Archaeological Opportunities (p. 57 onwards). The Archaeological Opportunities section correctly observes that cultural heritage and archaeology are assets for tourism. However, the section outlines a program which seems to confuse experimental archaeology with mainstream archaeology. What is required is (in accordance with the Burra Charter) a research framework, management plan and process of archaeological site management. This program could easily involve tourists and the public, as is typical of public archaeology. This appears to be an incorrect use of the term experimental archaeology as this is a proposed program of experimental reconstruction, although the research design should attempt to interpret the hydrology of the market gardens. Reconstruction of this type is a powerful interpretive device, however is out of step with contemporary heritage practice—that said, it may work, but you need to assess the archaeology fully before attempting reconstruction.
- 7) The program of Cultural Tourism outlined on p.59 is incorrect in several ways: the previous archaeological research is largely accessible, and the public has been involved in some archaeological work—to take one example, the work conducted as part of the Australian Research Council funded 'Historical Archaeology of the Pilbara Project' (2001-2004) included excavations at Cossack and involved input from CALM, Aboriginal groups, Western Australian Museum, archaeology students and staff of the University of Western Australia (four of whom wrote theses on Cossack sites, none reported in this Draft Master Plan), Roebourne Shire, local history experts and enthusiasts.)
- 8) Discussion of the site development, such as Services Improvements (p. 82) does not mention requirement for 'archaeological controls'. Upgrades to infrastructure such as water supply, drainage and stormwater may impact on the archaeological record, however no discussion on 'archaeological controls' is provided.

Our combined membership nationally and internationally is aware of the current status of the Cossack Draft Master Plan. As archaeologists and heritage managers we remain concerned about the lack of specific

archaeological management and controls, or reference to nationally accepted management guidelines, namely the Burra Charter. These are vital to any progressive, sympathetic and responsible development of Cossack.
(Friday, 5 January 2007)

MAAWA Hamelin Bay survey

On 24 February Wendy van Duivenvoorde ran a total station day school with MAAWA members in preparation for the Hamelin Bay fieldtrip. Run over the following Labour Day long weekend March 3-5 MAAWA visited Hamelin Bay in the state's south-west to survey the historic jetty, once part of a thriving late 19th century timber port complete with Customs office and pilot service, and now the location of a sleepy seaside caravan park and boat ramp. Department of Maritime Archaeology staff Richenda Prall, Wendy van Duivenvoorde and visiting Spanish conservator Paula Lopez-Arce assisted MAAWA volunteers to conduct an inspection and total station survey of the jetty, and the wreck of the timber carrying ship, *Agincourt*, one of seven wrecks in the exposed bay. Due to swells, the mapping of the jetty with a total station could not be completed over the weekend, and will be completed in the near future. Timber samples were taken of the jetty piles for identification and wood degradation analysis.

Batavia and Vergulde Draeck timbers

As part of her PhD research into the *Batavia* ship's construction Wendy van Duivenvoorde has been working on the dendrochronology (tree-ring dating) of *Batavia's* timbers with Elsemieke Hanraets (RING, Netherlands Centre for Dendrochronology). The dendrochronological examination revealed surprisingly that the ship was built from 200-year-old oaks from Poland. Intriguingly, this oak has the same provenance as the wood that renowned Flemish artists such as Rembrandt and Rubens used for the panels on which they painted their 17th-century masterpieces. The forests from which this oak was felled may have been denuded by 1650, after which it is no longer found. According to Wendy, this is the first recorded example of wood from the Polish region being used in shipbuilding.

Wendy will be leading a research project this summer at the Western Australian Museum to record the hull timbers of *Vergulde Draeck* (1656) for study and publication, and invites maritime archaeology students to participate in the effort. The hull remains of this Dutch East Indiaman could provide important information about the transition from bottom-based to frame-based construction in Dutch shipyards and may reveal much more about our understanding of Dutch naval history. For further information contact Wendy on 08 9431 8435 or email: Wendy.VanDuivenvoorde@museum.wa.gov.au.

Mapping the Coast Project

Sarah Mason has been undertaking the AIMA Mapping the Coast Project database entry as part of her Graduate Diploma in Applied Heritage Studies at Curtin University. The project was to research, distil and interpret Western Australian heritage information for a publicly accessible database. Sarah was assisted and supervised by Dr David Dolan from Curtin University's Centre for Cultural Heritage Studies and Ross Anderson.

The Mapping the Coast Project has come up with an interesting range of archaeological signatures and site types thematically related to the maritime exploration of Australia's coast. Sites include astronomical observatories (necessary for fixing positions for hydrographic surveys), blazed trees, rock engravings and graffiti sites, pewter plates and copper sheets on posts left by explorers and whalers to mark their visits, graves, lost anchors, lost boats and equipment, rock cairns, and shipwrecks. In at least one unique case, a primitive post office consisting of a tripod of saplings and a bottle to contain messages was established in Bass Strait's Kent Group, by John Lort Stokes to facilitate communication between five separate boat and land-based survey parties during his intensive survey of Bass Strait in 1843.

Collections

The Maritime Archaeology Collections are receiving sustained attention to upgrade collection, recording and database information.

Tracey Miller has recently joined the Department on a volunteer basis assisting Jen Rodrigues with the collections audit and the ongoing development of a uniform collections recording system.

Myra Stanbury, Richenda Prall and Jen continue to work on backlog publications on department projects, are working with Conservation staff on loan items for external institutions, and tidying up the ANCODS collection records (shared Australian-Dutch Collection of which records are maintained by the Western Australian Museum).

Eglinton (1852) update

In May 2006, parts of at least three rudder pintles were located and raised from a site c. 100 m SSW of the main *Eglinton* wreck site by two sport divers. The history of the wreck indicated that the rudder was disabled and the

stern-post smashed when the barque first hit a reef c. 49 km north of Perth, in September 1852 (see Stanbury, 2003: 22 ff.). This explained the almost total absence of pintles or other rudder fittings during the excavation of the site. It was assumed that the rudder either floated away or became lodged in the outer reef, possibly some 11 km north-west of the vessel's final resting place. These areas rarely permit diving along the outer, offshore reef and had not been investigated by the WA Museum. Indeed, the new site still awaits calm weather conditions for an inspection to be carried out in the shallow reef environment. The recent findings nevertheless point to the potential for furthering the analysis of the demise of this ship.

In addition to the new archaeological findings, is historical news of a survivor of the wreck—described in contemporary accounts as 'one little boy' (Stanbury, 2003: 1). Perth residents David and Lynne (née McMullen) Waterman have recently provided information about their ancestor Charles John McMullen who was the 7-year-old boy in charge of his nurse, Mrs Sarah Huxley.

Charles McMullen was born in England on 30 October 1844 and possibly lived in St Benets Place, 58 Gracechurch Street, London, prior to embarking on the *Eglinton* in the care of a nurse. Mrs Sarah Huxley (daughter of Benjamin Fretter and widow of John Huxley of the Cape of Good Hope). Charles married Emma Smith, a widow (née Game) on 10 August 1870 and the couple lived at 38 Cantonment Street, Fremantle, for a few years. For a time they both worked as warder and matron at the Round House (Fremantle's first gaol) where Charles was also Bailiff. In *The History of Fremantle...1829–1929* (Hitchcock, 1929: 39) he is stated to have been the local court bailiff at Fremantle for many years, and at the time the book was written was residing in Claremont, at 31 Princess Road.

In 1886, the *Daily News* noted that C.J. McMullen, had taken over the Rockingham mail and would convey passengers and parcels twice a week in addition to mail on Saturday if there was a demand. A trip would also be available for hire from Fremantle Railway Station.

Charles McMullen died on 22 April 1933 aged 88 years old. He failed to see an on-coming taxi at the corner of Bay View Terrace and Stirling Highway late on a Saturday night, and was knocked down when he suddenly stepped into the road in front of the vehicle. He died soon after being admitted to Lucknow Hospital and was buried in the Wesleyan section of Karrakatta cemetery with his wife Emma. He was survived by 3 sons and 2 daughters.

Acknowledgements

Thanks to Lynne (née McMullen) and David Waterman for supplying the information about their ancestor. Charles John McMullen was Lynne's great grandfather.

Myra Stanbury

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AEI News

RAN finds evidence of a wreck in the AEI search area off Rabaul, PNG.

On 14 September, 1914, just 6 weeks after WWI commenced, HMA Submarine *AEI*, mysteriously disappeared with all hands while on patrol at the Duke of York Islands off Rabaul in PNG. Together with three cruisers, three destroyers and storeships, including *HMAS Sydney I* the RAN's first submarines *AEI* and *AEII* had been sent to intercept the equally heavily armed German Pacific Fleet. The German fleet, which included *SMS Emden* had departed however and some Australian units remained to conduct patrols should they return. The search for the missing *AEI* was quickly abandoned when some of the Australian units remaining in PNG were required to prepare for convoy duty taking the 1st Australian Infantry Force (AIF) to the middle east. Though featuring in the official histories as the first Australian naval loss in wartime, *AEI* was forgotten by all bar a few.

After a number of sea postings in command of various vessels, John Foster RAN, became Joint Commander of the *Australian Defence Advisory Group* in Port Moresby PNG in 1976. There he learnt of the loss of HMA submarine *AEI* and in May of that year he was able to have the survey ship *HMAS Flinders* conduct a brief search of the east coast of the Duke of York Islands. Being unsuccessful in his first attempt, Foster then embarked on what he describes as 'rather an obsessive exercise' in trying to locate it, including at one stage getting Jacques Cousteau to deploy a magnetometer while he was at Rabaul in *Calypso* in 1985. Foster also records that Cousteau's team obtained a 'strike in a high probability area' but with the submersible inoperative the cause was not investigated at the time. The Rabaul area it needs be noted is highly volcanic with one eruption

of Mts Turvurur and Matupit recorded as recently as 1994. In writing seeking WA Maritime Museum support for further searches Foster commented that he was 'passionate about locating this submarine. It has significant historical importance as our first submarine, our first war loss . . . I believe it is in the national interest...' (Foster to McCarthy 2/03/2002).

Foster's approach was positively received for the Department had already become aware of the wreck and its significance in the mid-90s when diver and former MAAC member J.F. Clarke wrote recounting a story from the mid 1980s attributed to a noted salvage diver George Tyers (of *IJN I 124* and other fame) doing a very deep bounce dive on air to recover a snagged anchor in Blanche Bay close to Kokopo. On arrival at the bottom Tyers found the anchor caught in an old wreck that he was led to believe from the descriptions he conveyed to be *AEI*. Later Tyers contacted the Museum providing details. He found his anchor wrapped around steel stanchions with a 'conning tower' visible in the distance. This was enough to convince him and his naval informant that he had located *AEI*. At 345 feet down, understandably Tyers has not been back since, partly due to the depth and also because the location he described off Rabaul did not fit the historical accounts. Most commentators discount his report as the effect of severe narcosis and his requests for action by the navy in 1982 and 1988 were understandably not acted upon (WA Museum, *AEI* File, 52/02).

Interest in *AEI* also grew with the formation of *Friends of the Submarine Museum* (FOSM) a submarine veteran's, historian and volunteer support unit based at the Maritime Museum that was formed to assist in developing the HMAS *Ovens* exhibit. In gathering the history of the RAN together this all manifested itself in a naval exhibition featuring the history of the navy in the Indian Ocean and the submarine service generally. *Ovens* on its WWII submarine base slip, the story of the Australian submarine service including *AEI* and the *J boats*, and a representation of the upper-works of *AEII*, as it lies today in the Dardanelles now feature in that exhibition.

In his 2002 approach to the Museum for support CMDR Foster outlined his reconstruction of the loss, and then sought advice on the best avenues for funding and logistical support. He also provided a search strategy and a series of prioritised search areas, based on a predicted track, the result of exhaustive research. This and his naval experience led Foster to believe that the vessel, which had one engine inoperable, was not lost in a practice dive, (contrary to official opinion, including that of the CIC of the RAN, a Rear Admiral and Lt Henry Stoker Commanding Officer of *AEII*), rather it was most likely to have struck a reef whilst surface running in poor visibility. This Foster postulated served to damage and flood one of the saddle/ballast tank, causing it to keel over and eventually sink near the reef in depths that in his estimate would be near 100metres, not far off the 'crush depth'. These deductions led him to develop a 'priority one' search area thus:

An area bounded by all islands to the south east in the Duke of York group to 1.5miles south and east of *AEI*'s probable track and to Credner Island to the west. Maximum depth is 400 metres. This area covers the likelihood of a reef accident and the unlikely event of a diving accident following *AEI*'s last sighting and would relate to the submarine's probable dead reckoning position based on time to ETA (Foster to McCarthy 13/4/2002).

The possibility that *AEI* had been accidentally run down by one of its own escorts during the search—a search vessel HMAS *Paramatta* did report striking a submerged object at the time— was examined in Foster's recently published book on entitled *AEI Entombed but Not Forgotten*. There Foster comprehensively discounts the report (2006).

CMDR Foster has continually lobbied government and has strongly urged action both individually and through his advisory team, which includes industry representatives, the author representing the Museum, others including Michael White from the *AEII* group and Gary (Gus) Mellion a former submarine engineer. He also made many approaches to private enterprise and has approached any and every remote sensing, oil search or submersible carrying unit in or anywhere near PNG for support. Many will remember his account of the search and lobbying for support at the recent *Iron, Steel and Steamship Conference*.

Foster's frustration in obtaining any government support for the program until recently is evident in a chapter of his recent book headed 'Searching'. This is for good reason, for most of his early search was effected without any official support at all. i.e. it was initially all self funded. Suffice it here to provide a brief précis of the detail appearing in his book. In 2002, for example he flew to Rabaul with John Bay a filmmaker heading *Baypond Productions* a group interested in producing a documentary on the *AEI* and the war in the PNG region. After sailing across to the search area, his team conducted more archival and oral history work with the local people indicating that a submarine had been lost in Foster's priority one search area. He commenced an in water search with local divers. In 2003 while on a humanitarian visit with Rotary International, John had another search performed using a 'manta' sled and again useful oral histories were recorded. Then John Bay and he succeeded

in having the ABC join and together they funded a documentary directed by Richard Smith (Tim Smith of *AEII* fame's brother), a man already well-aware of importance of *AEI* and *AEII*. The ABC also provided the funds necessary to allow the WA Museum to finally be able to accede to CMDR Foster's request for more than desk-bound assistance and to loan the AIMA Centre of Excellence's side scan sonar, the Museum's magnetometer and the services of resident expert/GIS operator Jeremy Green. Though a wreck was not found in a search area defined by Foster, the modern in-water phase of the finding *AEI* project by remote sensing had commenced. Jeremy's report on the November 2003 search and a chapter in John's book refers (AIMA Bulletin, 2003; Foster, 2006).

Recently John was successful through his intense lobbying in having the Navy deploy one of its vessels equipped with side scan sonar and a precision depth sounder in further examination of his Priority One search zone and also as a matter of courtesy and good will the Tyer's report. Commanded by LCDR Richard Mortimer, with John on board, Gus Mellion assisting on shore and with ABC staff present HMAS *Benalla* was successful in locating wreckage only in CMDR Foster's search area. Though they searched an area of about 4 km sq using the 100 metre line as a datum line Tyer's site in Blanche Bay produced a nil return. CMDR Foster was of the opinion that as the site lay midway between two volcanoes Tavurvur and Vulcan which erupted in 1994 and 2006 there was a possibility, that if there was a wreck there its presence was perhaps masked by tons of volcanic ash. The Minister Assisting the Minister for Defence Bruce Billson subsequently sent the following press release out. Many of you will have seen the resultant articles:

The RAN survey vessel, HMAS *Benalla*, searched for the submarine during a routine survey operation in waters off New Britain in Papua New Guinea over the period 26 to 28 February 2007.

Mr Billson said during a wide search, of an area of interest, *Benalla* discovered what has been assessed as a large man-made object on the sea floor.

"The object is approximately 25 to 30 metres long and four metres high and in order to protect the site from unauthorised activity, no further details will be released about its position," he said.

The search was conducted using a towed side scan sonar, as well as hull-mounted survey equipment. The search area was provided to the Navy by the leader of Project AE1, Commander John Foster, RAN (Rtd) who has conducted over 30 years of research into the loss of *AE1*. Commander Foster was onboard *Benalla* during the search.

"I must stress that it is far too early to speculate about what the object detected by HMAS *Benalla* is and further investigation using a remotely operated vehicle with imaging capabilities would be necessary to make a positive identification," Mr Billson said.

"I am grateful for the assistance of the Government of Papua New Guinea for providing the necessary clearances to conduct this important search. Any future search operations will only be conducted with the full agreement of Papua New Guinea authorities," he said.

"Locating the *AE1* would help solve one of our country's most enduring naval mysteries. It would also provide some closure to the descendants of the 35 crew members who tragically lost their lives while serving our nation."

Though exercising extreme caution in claiming to have found *AEI* in his press interviews and in his Report to the Chief's of Navy, one is led to the conclusion that Foster has been finally successful after 30 years of frustrating endeavour. Mindful of security problems, CMDR Foster and the RAN will keep the locations in confidence until a 'ground truthing' of the find as requested by John has been affected, however. With assistance from this office, he has also made recommendations towards the security of the wreck, including close monitoring of any visitations to the area by the people living on the shores nearby. This is most appropriate, they have had the submarine as part of their indigenous heritage from the time they saw it approach their shores, only to disappear before their very eyes! Further it is understood that the RAN, who own the vessel as per the Roach opinion below will set the ball rolling in requesting intergovernmental liaison with PNG authorities to help secure Australia's first naval loss and its first submerged war grave. Amendments to the War graves Act have also been suggested.

M.McCarthy

Roach
Sunken Warships and Military Aircraft
(Reproduced from Roach (1996: 84-5))

Warships, naval auxiliaries, and other vessels owned or operated by a State and used at the time they sank only on government non-commercial service, are State vessels. Aircraft used in military, customs and police services are State aircraft. International law recognises that State vessels and aircraft, and their associated artefacts, whether or not sunken, are entitled to sovereign immunity.

In addition, such shipwrecks and sunken aircraft are historical artefacts of special importance and entitled to special protection. Many such ships and aircraft have unique histories making them important parts of their country's traditions. In addition, these ships and aircraft may be the last resting places of many sailors and airmen who died in the service of their nations.

The practice of States confirms the well-established rule of international law that title to such vessels and aircraft is lost only by capture or surrender during battle (before sinking), by international agreement, or by an express act of abandonment of government property. Once hostilities have ended, belligerents do not acquire any title to such vessels or aircraft through the act of sinking them. Likewise, title to such vessels and aircraft is not lost by the mere passage of time.

A coastal State does not acquire any right of ownership to a sunken state vessel or aircraft by reason of its being located on or embedded in land or the sea-bed over which it exercises sovereignty or jurisdiction. Access to such vessels and aircraft and their associated artefacts located on or embedded in the sea-bed of foreign archipelagic waters, territorial seas or contiguous zones, is subject to coastal State control in accordance with international law. It is the policy of most Governments to honour requests from sovereign States to respect, or to authorise visits to, such sunken vessels and aircraft.

Access to sunken state vessels and aircraft and their associated artefacts located on or embedded in the continental shelf seaward of 24 miles from the baseline is subject to flag State control and is not subject to coastal State control. Access to sunken state vessels and aircraft and their associated artefacts located on or embedded in the sea-bed seaward of 24 miles from the baseline is subject only to flag State control.

Except for opposing belligerents while hostilities continue, no person or State may salvage or attempt to salvage sunken state vessels or aircraft, or their associated artefacts, wherever located, without the express permission of the sovereign flag State, whether or not a war grave.

Once hostilities have ended, sunken state vessels and aircraft containing crew remains are also entitled to special respect as war graves and must not be disturbed without the explicit permission of the sovereign.

The flag State is entitled to use all lawful means to prevent unauthorised disturbance of the wreck or crash site (including the debris field) or salvage of the wreck.

Disturbance of any shipwreck or crash site is necessarily a destructive process. In virtually every instance, once recovery activities are undertaken, the site cannot be restored or replicated. Any recovery effort which disturbs the site denies other properly authorised persons the opportunity for scientific discovery and study.

Accepted principles of marine archaeology, naval history and environmental protection require thoughtful research design, careful site surveys, minimal site disturbance consistent with research requirements, adequate financial resources, preparation of professional reports, and a comprehensive conservation plan before artefacts should be permitted to be recovered and treated. These principles apply particularly to sunken state vessels and aircraft.

These rules do not affect the rights of a territorial sovereign to engage in legitimate operations, such as removal of navigational obstructions, prevention of damage to the marine environment, or other actions not prohibited by international law, ordinarily following notice to and in cooperation with the State owning the vessel or aircraft or otherwise entitled to assert the sovereign immunity of the wreck.

Roach, J.A., 1996. Appendix: sunken warships and military aircraft, *Underwater archaeology and the Titanic: The legal considerations*, in Jarvis, A., et al, 1996. *Proceedings, IXth International Congress of Maritime Museums*. National Maritime Museum, UK.

Materials Conservation

Visiting Spanish conservator Dr. Paula Lopez-Arce is working with research chemist Vicki Richards and conservator Carmela Corvaia in the Western Australian Museum's Materials Conservation Department studying the causes of degraded glass from the *Zuytdorp* shipwreck. This is part of her post-doctoral scholarship funded by the Ministry of Science and Technology (JCCM, Toledo) Spain and the European Social Fund. Before coming here, she spent almost 2 years at the Science Department of the Getty Conservation Institute, Los Angeles researching the role of salts on the degradation of historic building materials in Adelaide, Madrid and the UK.

Paula's two month placement at the Western Australian Museum will also include studying the effect of salts in the corrosion of certain waterlogged materials.

Vicki Richards continues her research into the in-situ preservation of the *James Matthews* site. A number of different reburial techniques are currently being trialled and geological, physico-chemical and microbiological changes in the burial environment monitored over time to determine how closely, and quickly, the burial environment comes to resemble the pre-excavation environment. The measured parameters not only serve to quantify the levels of oxygen present and the reducing / oxidising nature of the environment but will also provide information on the likely on-going chemical and biological processes occurring in the environment. Furthermore, the aim is to correlate these parameters with the measured deterioration of the hull remains thereby allowing evaluation of the effectiveness of each reburial technique and assist in implementing the most appropriate mitigation strategy for the long-term preservation of this wreck site.

Dr Ian Godfrey and Vicki Richards continue their investigations into the post conservation problems associated with acid deterioration of iron and sulphur impregnated conserved waterlogged archaeological wood recovered from anaerobic marine environments. They have analysed wood samples from a number of international shipwrecks, including the Batavia (Australia), Vasa (Sweden), the Skuldelev Viking ships (Denmark) and the Bremen Cog (Germany). Many different techniques have been utilised in attempts to quantify the nature and extent of this degradation. High-resolution solid-state ¹³C nuclear magnetic resonance and Fourier transform infra-red spectroscopic techniques are particularly useful for the comprehensive analysis of whole wood without recourse to extraction or degradative techniques, allowing all components comprising the sample under examination to be analysed simultaneously. Both techniques provide structural information, which can be linked to the chemical composition of wood components, thereby allowing information to be obtained on chemical changes that have occurred in the wood. This information will assist in establishing appropriate conservation strategies to avoid or at least ameliorate these post conservation problems.

Inger Nystrom-Godfrey is currently employed on a three month contract to conserve artefacts recovered from the earliest known Portuguese shipwreck in Australia, the *Correio de Azia* (1815), including the approximately 900 silver coins excavated from one concretion affectionately named the 'coin lump'.

Dr Ian MacLeod, Jon Carpenter and Vicki Richards continue their involvement with Bill Jeffery and his project, Managing and Monitoring of Submerged World War II Sites in Chuuk Lagoon, Federated States of Micronesia. They have been performing in-situ corrosion surveys of the sunken Japanese merchant naval vessels and aircraft to ultimately monitor the longevity of these important underwater cultural heritage sites. They will also assist in providing practical guidelines and training for local Chuukese Heritage Preservation Office field staff detailing natural, cultural and corrosion aspects to document on a regular basis so more effective and timely management of these sites can be implemented in the future.

Compiled by Ross Anderson with contributions from
Paula Lopez-Arce, Mack McCarthy, Vicki Richards Jennifer
Rodrigues, Myra Stanbury, and Wendy van Duivenvoorde

NEW ZEALAND

Auckland Regional Council

Progress has continued with the progressive survey of historic heritage around the coastline of the Auckland Region. Area surveys are being undertaken in combination with thematic studies (e.g. coastal defence) with the aim of eventually completing an inventory of maritime heritage throughout the region. This summer saw the completion of a significant milestone - the southern half of the Kaipara Harbour. Many of the sites recorded around the Kaipara are Maori heritage sites that extend into the coastal marine area.

The ARC Heritage Programmes Group is also currently investigating an unidentified shipwreck east of Tiri Tiri Matangi Island in the inner Hauraki Gulf north of Auckland. This is one of a small number of reported shipwrecks in the Auckland Region that cannot readily be reconciled with any recorded loss or deliberate disposal. Informally known as the "Compass Rose Wreck" because it plots within the compass rose on the latest nautical chart, it was discovered during a sidescan sonar survey of shipping lanes. The wreck lies in 44 m of water, approximately 42 m in length and has now been relocated and recorded on digital video by Keith Gordon using an ROV. The survey has enabled some suggestions about the identity of the vessel to be discounted, and the wreck currently remains unidentified.

Robert Brassey

Research on Largest Sailing Ship Built in NZ

In the 1840s the 410 ton barque *Stirlingshire* was built at Nagle Cove on Great Barrier Island, 60 miles NE of Auckland, NZ. It was built by John Gillies and Robert Menzies for Abercrombie & Co., merchants of Sydney. I am researching this ship and the people and events associated with it, from the 1830s to the 1880s when it was finally hulked in Europe. I need more information to unravel the movements of John Gillies and Robert Menzies, because some information seems in conflict.

During the late 1830s Gillies was building vessels on the banks of the Manning River north of Sydney. He then moved to his own shipyard at Klywootika on the Macleay River (also north of Sydney) until he sold it to Christopher Lawson in 1843. At this yard he built the 150 ton schooner *Glenmore* for William Abercrombie, in the latter half of 1841. The association with Abercrombie continued when Gillies and Robert Menzies built the *Stirlingshire*. Launched in November 1848, it was given the official number 24868.

Other information has Gillies at Great Barrier building both the schooner *Rory O'More* launched in October 1841, and the 130 ton brig *Tryphena* around the same time. I have recently found Gillies' log as a harbourmaster 1844-58, that shows that he was at Nagle Cove from January 1846 to January 1849.

Any information that will bring a bit more clarity as to how, when and where Gillies and Menzies operated would be much appreciated. If anyone has more information on the brothers William, Peter, Charles and Robert Abercrombie of Sydney, Coromandel, Great Barrier Island, or Auckland, I would also be much interested.

Please contact Don Armitage glaucus@xtra.co.nz or write - RD 1, Great Barrier Island, Auckland 0962, NZ.

Don Armitage

AROUND THE WORLD

Chuuk Lagoon WWII Submerged Sites

Report on 2006 Earthwatch project

Project Aims

Earthwatch volunteers will help to conduct the first holistic survey of Chuuk Lagoon's World War II submerged historic sites, which have been described as "one of the great undersea wonders of the world." Detailed archaeological examination of some of the wrecked planes and ships will be implemented in conjunction with marine flora and fauna surveys and *in-situ* corrosion surveys to determine past and current rates of decay. After a review of the biological, chemical and corrosion micro-environmental data, appropriate management strategies will be developed which will result in long term preservation of the range of heritage values of the sites.

Agencies and personnel involved

The following people participated in July and November/December 2006:

- Bill Jeffery, Project Principal Investigator (PI), James Cook University, Queensland;
- Ian MacLeod, (Project P.I.), Vicki Richards and Jon Carpenter, Materials Conservators (Western Australian Museum), Perth, Western Australia;
- Maria Beger, University of Queensland (Project P.I.), Melbourne;
- Nicolas Bigourdan, James Cook University Maritime Archaeology Masters graduate;
- Yu (Jackie) Wang, James Cook University Masters graduate (now PhD candidate);
- Mandy Hengeveld, Marine Ecologist, Vancouver, Canada;
- Michael Delany, Scuba Instructor, Vancouver, Canada;
- Arimathea Pappas, Marine Science Animal Care Specialist, Vancouver, Canada;
- Glenn Dunshea, Marine Biologist, Australian Antarctic Division Tasmania, Australia;
- Chuuk State Department of Marine Resources staff;
- Chuuk Historic Preservation Office (HPO) staff;
- A total of 23 Earthwatch volunteers divided into four teams.

The project is funded largely by the Earthwatch volunteers and is planned to run from July 2006-2008. The first two teams of volunteers commenced work in July 2006. Earthwatch volunteers on each team implement the

project activities under supervision of Chuuk State Government employees and visiting scientists for a two week period per team.

Funding for the project requirements (e.g. accommodation, equipment, PI travel, fuel for the boats, etc.) is provided by the Earthwatch volunteer fees. Chuuk State government agencies allocate staff to work on the project and in the provision of other resources. In 2006, in addition to assistance provided by Romio Osiena, Director of Marine Resources, staff Allen Marcus and Kerat Rikim (Fisheries Specialists) participated and this Department provided one of their boats for the project's use. The Chuuk HPO assisted in the project through the work of the State Historic Preservation Officer (Tracy Meter), Arimichy Rudolph and Anerit Mailo (Archaeological Field Assistants), Doropio Marar (Archaeological Field Assistant Trainee) and Secretary Annessy Joseph.

Project Methodology

The project is structured around the participation of the six Earthwatch volunteers (for each two week period). Each team period is implemented in a similar manner, commencing with a two day introduction/training period (for all participants, ie. Earthwatch volunteers, and Chuuk State employees), three days of diving, a two day break, a further four days of diving followed by two days of data entry.

The PIs in collaboration with Chuuk State employees decide on which of the sites to work using the following methodology and within the depth limit of 20 metres imposed by Earthwatch.

The biological surveys include swimming along transects counting target organisms, measuring the size and density of sessile organisms contributing to reef morphology and habitat structure (substrata, corals, sponges, encrusting red algae), estimating size and counting target fish species of tourism and fisheries value, and photographic documentation.

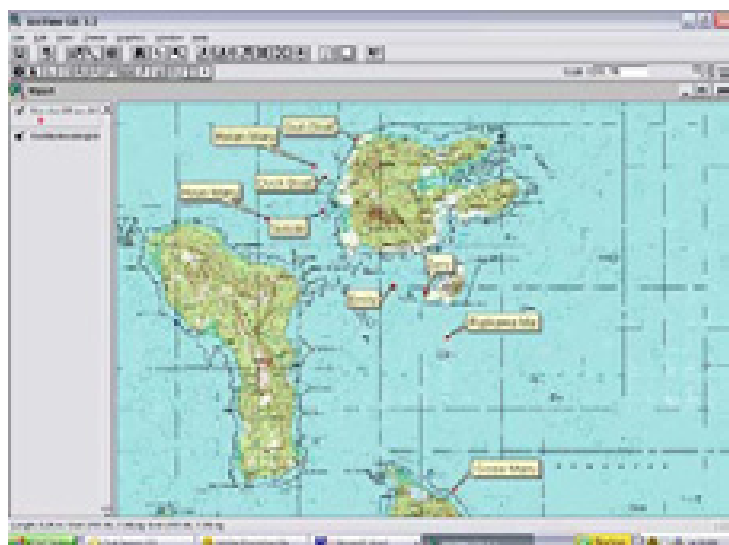
The archaeological surveys comprise the compilation of detailed measurements and photographs for each site that will be used to map/draw the site in 3D and allow for comprehensive analysis. The data will be entered into computer databases; recording/mapping programs such as site recorder (site surveyor); and photographic programs such as photomodelor.

The corrosion survey of the sites will comprise a series of pH and corrosion potential measurements to determine the underlying nature of the corrosion processes.

Each of these three different types of surveys will be implemented on the same sites so a holistic picture of the heritage values (natural and cultural) and the impacts of dynamite fishing, storms, diving tourists, boat moorings can be compiled, analysed and reported on.

The sites investigated during November/December 2006 included:

- *Fujikawa Maru*;
- *Hoyo Maru*;
- *Gosei Maru*;
- *Heian Maru*;
- Emily flying boat;
- *Susuki*;
- Zero (off NW tip of Etten);
- A 'gunboat' of unknown design/origin, NW of Tonoas;
- A 'dock-boat' of unknown origin, NW of Tonoas.



Site locations.

Outcomes from 2006 teams

At this stage it is too early to provide comprehensive outcomes. However, it was found the collaborative corrosion and marine ecology surveys proved to be a useful method and potentially innovative in understanding the relationship of materials corrosion and biological formations. This information could lead to a greater understanding of the conservation/preservation process required for these and other sites. This type of work is innovative and unique in maritime archaeology/marine ecology.



A unique Japanese military vessel.

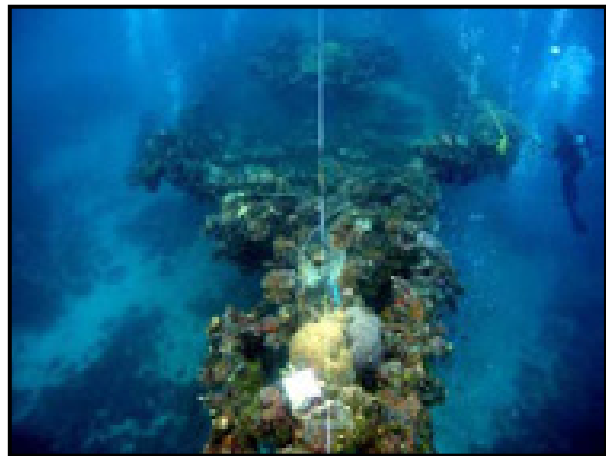
help of a local family who live nearby and directed us to the site. The vessel is different from the 'gunboat' and was described by local residents as a dock-boat. Two days of archaeological, biological and corrosion survey was implemented to document the vessel. The shipwreck appears to have had minimal diving and it will be interesting to see what diving may take place over the next 6-7 months when we return to further document the site.

Tentative identification suggests that it is a bonito fishing vessel, as evidenced by the raked bow, outboard sponsons and prominent bowsprit converted for war use (as evidenced by the circular structure at the bow which is similar to other lagoon vessel structures which are used to mount guns).

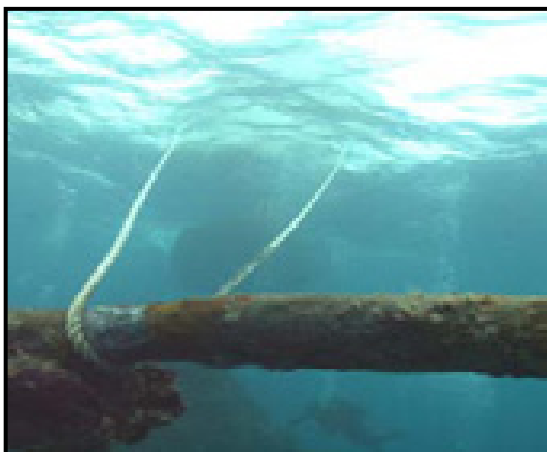
One of the main objectives of the July 2006 project was to consider and establish some survey systems and monitoring points for a range of issues/site impacts (e.g. coral growth and diversity, fish species, mooring impacts and corrosion studies). This was achieved and will be reported on in more detail in a later report.

This subsequent corrosion survey work on the *Fujikawa Maru* (the first surveys were carried out in 2002) has found the site is increasing in its corrosion rate, which is alarming, given the priority of this site for diving tourists. Methods to reduce this rate and even to commence conservation of the site are possible and will be reported on in a later report. A rare Scleractinian coral (*Acropora pichoni*) that normally occurs at depths greater than 30 metres was found at 13-20 metres, opening the door to some interesting research on why this coral is here.

The survey work on the unknown 'gunboat' off Tonoas has provided substantial evidence of what is considered a unique Japanese military vessel. A search was carried out for what was described as a similar vessel wrecked nearby. This was located with the



Looking from the bow back along the dock-boat.

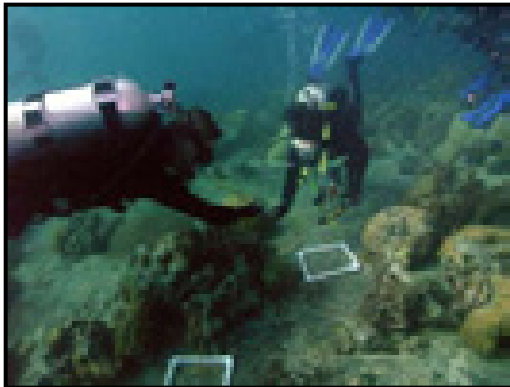


What is clear however is that dynamite fishing and improper mooring practices by dive tourism boats continue to have a detrimental affect on the sites (see image). This could lead to the destruction/collapse of some sites, which could be disastrous to the diver tourism industry and to the marine ecology (if oil is contained in the ships and released).

Inappropriate mooring practice on the *Gosei Maru*.



Tagged coral on the *Emily* flying boat which leads to renewed corrosion of shipwreck material



Biological quadrants being carried out on the *Hoyo Maru*.

An investigation was carried out on the *Hoyo Maru*, on a request from the Department of Marine Resources as it was noticed from a July 2006 flyover that the *Hoyo Maru* was leaking oil. Our investigation (which included a biological and corrosion survey) failed to find any evidence of leaking oil or gasoline (see image). Oral information from ex dive guides, suggested that the cause of the leaking oil could be fuel drums on the *Kiyosumi Maru* (located close to the *Hoyo Maru*) which they had noticed leaking petroleum products in previous years. The *Kiyosumi Maru* was not investigated due to poor weather and the loss of one whole day of diving.

Acknowledgement of collaboration

The excellent collaboration between all the agencies/personnel is very gratifying, especially between Chuuk State (the Department of Marine Resources, Chuuk HPO) and the Principal Investigators and their research objectives—which are essentially to help Chuuk State in managing submerged military remains in a sustainable manner. Thanks must also go to the Earthwatch volunteers who fund the majority of the project, to some field staff (Team Leaders) who funded themselves and the Kurassa Hotel for very good accommodation. Earthwatch are keen to hear from any future volunteers www.earthwatch.org or if interested a Team Leader, contact Bill Jeffery. For further information about Chuuk see www.chuukhistoric.org

Bill Jeffery
Principal Investigator
Earthwatch 'Diving World War II shipwrecks in Truk
(Chuuk) Lagoon' project
Email: william.jeffery1@jcu.edu.au

NEWS FROM THE INTERNET

UNESCO Convention

The latest list of countries that have ratified the UNESCO Convention for the protection of underwater heritage:

1	Panama	Ratification 20/05/2003	Sth America
2	Bulgaria	Ratification 06/10/2003	East Europe
3	Croatia	Ratification 01/12/2004	East Europe
4	Spain	Ratification 06/06/2005	Europe
5	Libyan Arab Jamahiriya	Ratification 23/06/2005	Middle East
6	Nigeria	Ratification 21/10/2005	Africa
7	Lithuania	Ratification 12/06/2006	East Europe
8	Mexico	Ratification 05/07/2006	Sth America
9	Paraguay	Ratification 07/09/2006	Sth America
10.	Portugal	Ratification 21/09/2006	Europe
11.	Ecuador	Ratification 01/12/2006	Sth America
12.	Ukraine	Ratification 27/12/2006	East Europe
13.	Lebanon	Acceptance 08/01/2007	Middle East
14	Saint Lucia	Ratification 01/02/2007	Caribbean

Five-year Ban on Shipwreck Diving Lifted in South Africa

Historic shipwreck divers can re-apply for their salvage permits after the Department of Arts and Culture recently lifted its controversial five-year ban.

Conservation diver, Graham Raynor, said that, at a meeting on Thursday with the South African Heritage Resources Agency and the department, it was decided that divers could re-apply to salvage wrecks until 2010.

For the team, that includes Raynor, which was forced to stop salvaging in 2001 when all permits were revoked, it means an opportunity to salvage the remaining 60 percent of the Oosterland, a ship that was transporting Huguenots to South Africa and sank in 1697.

The team's partners spent millions of rands and it spent thousands of man hours underwater on the Oosterland before the ban came into effect.

"I'm really happy at the moment. At least the dive can carry on," he said.

Another salvor, Charles Shapiro, said while the permits were revoked, the wrecks lay "waiting to be pillaged and for Mother Nature to destroy them". He added that the only way to protect the sites was to issue permits as divers in control of wrecks were given the right to police them and made sure that unauthorised divers were not plundering them.

"In three years you can do a lot," he said of the permit extension until 2010. "It's a very good move and the only way to protect the sites".

The department's director for heritage policy, Mbhazima Makhubele, agreed that a problem with the permits having been revoked was that it left the wrecks open to pillage.

The department had also found that the way in which the permits were withdrawn "raised serious legal issues".

The three years ahead would afford an opportunity to form a comprehensive policy framework around salvaging and, relatedly, ratify a United Nations convention which aims to "encourage (international) dialogue and discussion on what happens with our natural underwater heritage", Makhubele said.

He dismissed as inaccurate the divers' contention that the UN convention sought only to grant access to divers and marine archaeologists from the shipwreck's country of origin.

Raynor said that in South Africa, there was very little money spent on maritime museums and the thousands of artefacts divers handed over in many instances acted as a "nuisance" to the institutions which had no place to put them. "(The museums) are not motivated to bring them to the public," he added.

Shapiro said divers usually wanted items of commercial value which were often thousands of pieces that provided no historical significance, such as the tin, copper, lead and porcelain cargo.

Anything of historical or cultural value was handed to the authorities.

Also, a representative sample of the cargo materials was taken to ensure there was no "missing link".

Dominique Herman

This article was originally published on page 6 of The Cape Times on January 30, 2007

Charity Fund in Bulgaria Wins Project for Underwater Thracian Treasures Exploration

Bulgarian charity fund 13 Centuries of Bulgaria won the international project for exploration, protection and presentation of Thracian underwater inheritance.

The project will be implemented in co-operation with the Bulgarian Institute of Thracology, the centre for

underwater archaeology and the International Centre for Maritime Archaeology at the Norwegian University of Science and Technology in Trondheim, Focus news agency reported.

The project aims at exploring Bulgarian cultural inheritance under water through scientific research, publications and educational programmes.

Cultural and historic riches, including sunken pre-historic settlements, boats and ships add scientific value to the project. Due to the specific underwater conditions the artifacts are in good state.

So far the largest scientific achievements in the sphere of thracology have been made on land.

The Norwegian centre will provide equipment and know-how in the sphere of underwater archaeology for the project.

The project is worth 210 000 leva (175,000 AUD) and it will last two years. Scientists will make a map of the underwater cultural inheritance and will produce a film and an internet site.

Future plans include organisation of diving at the ports of Sozopol and ancient Messembria and Apolonia Pontika.

The article can be found at:

http://www.sofiaecho.com/article/charity-fund-in-bulgaria-wins-project-for-underwater-thracian-treasures-exploration/id_21167/catid_70

FIELD WORK, FURTHER STUDIES AND INTERNSHIPS

Department of Maritime Archaeology
Western Australian Museum

ARCHAEOLOGICAL RESEARCH PROJECT

June 15 – July 15, 2007

This project will take place at the Maritime Archaeology Department of the Western Australian Museum, Cliff Street, Fremantle, Australia.

The Experience: Study of the archaeological hull remains of the Dutch East Indiaman *Vergulde Draeck* (1656).

Would you like to get more experience in drafting archaeological ship timbers? In June and July 2007, the archaeological ship timbers of the Dutch East Indiaman *Vergulde Draeck* (1656) will be recorded. *Vergulde Draeck* is one of four United East India Company ships that sank in Western Australian waters. Although no substantial hull remains were found, about 58 registered lots of timber including remnants of planks, frames, pine sheathing, and beams have been raised from the seabed since the discovery of the shipwreck. These timbers have been conserved and are now available for detailed study. Since the *Vergulde Draeck* dates to a period during which a major change occurred in Dutch shipbuilding (from a bottom-based to a frame-based construction method), these timbers have an important archaeological value with the potential of adding to our understanding of Dutch shipbuilding in the seventeenth century.

Two students will be invited to assist the Maritime Archaeologists of the Western Australian Museum in recording these unpublished timbers. The drawings, photographs, and samples will be used for the final publication of the *Vergulde Draeck* hull reconstruction.

Participation in this research project is an excellent opportunity to get a better practical understanding of nautical archaeological concepts and techniques that have been taught to you in the classroom.

Costs: You will have to provide your own transport and accommodation. The Department of Maritime Archaeology of the Western Australian Museum will provide all lab supplies and equipment. For those who have difficulties to arrange for accommodation at a distance, the museum staff will provide you with a place to stay while you settle in. Once settled, you will have to take care of your own accommodation.

Additional information: Project limited to 2 students.

If you are interested, please send your CV to:

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Fax: +61 8 9431 8489

Past Foundation

The Past foundation is offering a number of Field school opportunities in the Summer of 2007, ranging in topics such as Florida Keys Underwater Field school July 29- August 10, 2007, and Boca Chica Shipwreck Field School for Teachers in Texas, June 2-10, 2007. See link below for more details and other projects available.

<http://www.pastfoundation.org/2007FieldSchools.htm>

GRANTS AND FUNDING

NT Heritage Grants: The 2007/2008 NT Heritage Grants program is now open to applications. The primary purpose of the grants program is to encourage appropriate conservation work to privately-owned heritage places. **BUT** applications will also be considered for **research, documentation** and **promotional** projects. Research and documentation projects may involve historical research, recording or mapping or preparation of a conservation management plan. Promotional projects must relate to a place or object and may include brochures or publications. Closing date is **30 April 2007**. Application forms and guidelines can be downloaded from www.heritagegrants.nt.gov.au

Enquires should be directed to:

Karen Cooper

Heritage Conservation Services

Department of Natural Resources, Environment and the Arts

Telephone: (08) 8924 4056 or Email: heritagegrants@nt.gov.au

POSITIONS VACANT

The Australian National Maritime Museum is now hiring an Education Officer within the Commercial and Visitor Services Branch at the Museum. More information and how to apply can be found at the link provided below. <http://www.anmm.gov.au/site/page.cfm?u=359&c=1661>

NEW BOOKS, PUBLICATIONS, VIDEOS AND ARTICLES

Maritime Archaeology Monograph Series (MAMS) Publications

Flinders University recently held a book launch with guest speaker Jeremy Green for the revamped monograph series containing post graduate work conducted by Flinders University students in the Maritime Archaeology Department. MAMS has reprinted issues 1 thru 7 of the previous MAMARS with a high level of editing and new format. Issues are available through order and a list can be found on the Flinders website, as well as PDF versions. <http://ehlt.flinders.edu.au/archaeology/research/publications/MAMARS/index.php>
Any enquiries please send to MAMS editor Claire Dappert: Claire.dappert@flinders.edu.au

FORTHCOMING CONFERENCES

WAC-6 in Ireland 2008

Following the initial excitement of the successful bid to hold WAC-6 in Ireland in 2008 (June 29-July 4) planning for the congress has been progressing well. We are delighted to announce that the email for inquiries about the congress is wac6@ucd.ie and the website address is www.ucd.ie/wac-6. This site will be live from 5th March 2007. We look forward to receiving lots of visitors to the website and to WAC-6 itself.

As in previous congresses the programme will be organised by themes, each with several sessions and we look forward to developing the programme with your contributions in terms of proposals for themes and for sessions, papers and posters. The main venue for WAC-6 will be the campus of University College Dublin. The layout of the campus is well-suited to facilitate easy movement and good communication between different venues and exhibition spaces. On Wednesday, 2nd July 2008 the congress tour will be to the World Heritage Site of Brú na Bóinne (the Boyne Valley), including the Neolithic passage tomb complex focused on Newgrange and the site of the Battle of the Boyne fought in 1690.

We are also organising an active and varied social programme which we think will complement the academic programme and help to make WAC-6 a truly memorable event. We look forward to welcoming you to Ireland!

Gabriel Cooney, Academic Secretary, WAC-6
gabriel.cooney@ucd.ie

Prague 2007

Call for papers for the tenth international conference on Studies Repairs and Maintenance of Heritage Architecture STREMAH 2007 in Prague in July which incorporates a Maritime Heritage Seminar
<http://www.wessex.ac.uk/conferences/2007/stremah07/index.html>

New Ground: Australasian Archaeology Conference

University of Sydney, Sydney, Australia
21-26 September 2007

CALL FOR PAPERS

New Ground: Australasian Archaeology Conference 2007 will combine the annual conferences of the Australasian Institute for Maritime Archaeology Inc (AIMA), the Australasian Society for Historical Archaeology (ASHA), the Australian Archaeological Association Inc (AAA), the Australian Association for Maritime History Inc (AAMH) and the Australian Association of Consulting Archaeologists Inc (AACAI).

New Ground will focus on presenting and discussing new research and advances in theory, method and practice, building connections between archaeologists and defining future directions for Australasian archaeology in regional and global perspective. The forum will bring together educators, researchers, consultants, government archaeologists, students and other practitioners grappling with some of the most topical issues in archaeology today. The focus will be on how together we can break "new ground".

There will be a combined panel-style plenary each morning followed by three concurrent sessions for the remainder of the day. Each concurrent session will normally comprise 4 x 20 minute papers, including questions and discussion. Session coordinators may wish to vary the way they organise the timing and order of content within their allocated time slots. Some sessions may be allocated two or more time slots.

The Committee has received an impressive range of session proposals (see below) and now seeks offers of papers. The Committee welcomes papers directly relevant to one or more of the proposed session topics (see below). If you want to offer a paper which does not obviously fit into an existing session, but is in keeping with the general aims and spirit of the conference, please send this through also. The program is still being finalised.

and there is still scope for new or altered sessions. For example, there may be someone who would like to organise a session around a defence theme (perhaps, 'The Archaeology of Conflict') - which is fairly topical in maritime circles at present. Papers may also be offered as posters.

Papers which incorporate opportunities for sub-disciplinary cross-over are especially encouraged. The emphasis of the conference will be on moving forward-using new contacts to inspire ideas, suggest possibilities and initiate directions for archaeological research, education and heritage conservation practice.

The following is a selection of topics which have been proposed as sessions:

- * Abandoned Ship and Australian Maritime Archaeology: An Exploration of Significance and Research Potential
- * Past, present and future directions for archaeology at Port Arthur
- * Submerged Terrestrial Sites in Australia
- * The Missing Link: Common ground in archaeology
- * A future for the past? Law reform and the protection of Australia's archaeological heritage
- * Agents and Agency: Archaeology, Heritage Management and the Role of Government
- * Intimate Encounters, Domestic Engagements: New Directions in Gender and Sexuality Research
- * New Approaches in Landscape Archaeology
- * New Ground in Historical Archaeology Material Culture Studies
- * Recent Archaeological Research Arising From Consulting Projects
- * Secret visitors: understanding and confronting pseudo-archaeology
- * The Archaeology of Aboriginal Missions
- * 'We have the technology': Scientific and experimental archaeology today

There will also a proposal for workshops where technicians will have the opportunity to showcase new technologies applicable to archaeological practice.

Paper submissions will be accepted via an online form. (If you are unable to submit an online proposal, contact papers@newground.org.au.) The call for papers has been extended to 30 April.

Visit the website www.newground.org.au for more information about the format of the conference and other relevant information for presenters.

BOOK REVIEWS

Industrializing American Shipbuilding: The Transformation of Ship Design and Construction, 1820-1920.

WILLIAM H. THIESEN

University Press of Florida, New Perspectives on Maritime History and Nautical Archaeology, Gainesville, FL, USA 2006. xi + 302 pp., ref., index, ill.

As the subtitle suggests, this text traces the dramatic changes in a fundamental American industry over a relatively short period of time. These changes Thiesen is able to conclude would leave the industry unrecognizable to practitioners from each end of this timeframe. Through the extensive use of primary and secondary sources the text follows this American narrative as it unfolds through a series of cross Atlantic exchanges, primarily with England, which profoundly changed the history of shipbuilding. The book is organized into eight chapters with the first serving as an introduction to the Anglo-American tradition from its pre-Revolutionary War era.

The Anglo-American tradition before Independence was an industry little changed for centuries, and was the place of apprentices and masters plying their craft in a predominantly wooden world. Methods and skills spread throughout the colonies with the immigration of shipwrights from overseas, and designs were based upon the practical knowledge of the shipwright and previously successful designs. This led to standardization throughout the industry, increased further by Lloyd's Society Green Book listing designs hierarchically for purposes of insurability.

Chapter Two looks at the changes this industry underwent in England up until about the 1870's, primarily the introduction of scientific methods to the design process and iron as a construction material. As wood grew exceedingly scarce in the British Isles, shipwrights were increasingly forced to look elsewhere for sources and in 1818 built the first sail driven iron vessel, *Vulcan*. Iron was not an immediate success as there was an initial reluctance among some builders to use a material that sinks; this combined with a few notable wrecks slowed the

adoption process. From the scientific perspective there was an increasing reliance upon drafting coupled with the first utilizations of testing, sometimes in model test basins, to infer desired design characteristics. These findings would be spread through a series of publications and the establishment of university positions and professional societies, like the Institution of Naval Architects.

As English shipbuilding became ever more sophisticated, American shipwrights with their abundance of readily available lumber, continued in more traditional methods. Chapter Three takes a more in depth look at this period that saw shipyards remain in families for generations and the apprenticeship system pass knowledge from tutor to student. Successful designs were accomplished by imitating ships seen in port and through the employment of half hull models. This leads in the next chapter to the description of the 'Golden Era of Urban American Shipbuilding,' a time marked by a growing industry combined with greater sophistication in construction methods. Machines started to replace the use of manual labor, one example being the treenail lathe that could quickly fashion the wooden dowels essential to wooden ship construction. The Navy shipyards, with the largest investment base, also began to employ ship houses to move construction indoors and increase year round productivity.

The next chapter describes the introduction of iron shipbuilding to the American wooden shipbuilding culture and its slow acceptance for similar reasons to the British context. Yet Thiesen's argument in this chapter runs counter to the earlier belief that iron ship construction arose from boilermakers, and instead shows that it had many connections to the previous wooden tradition. The early attempts at iron construction would follow the proven designs of wooden ships, including an adoption of similar terminology. Due to these influences many of the jobs would remain initially the same, but as more departmentalization occurred the introduction of unskilled labor increased greatly. Throughout these chapters there are plenty of illustrative photographs to clarify different aspects of the production process, unfortunately they are general and not linked to the specific sites that Thiesen mentions.

After a 'Dark Age' following the Civil War, the United States navy in 1880 began a rapid period of expansion based upon more theoretical principles of ship construction. Naval engineers took theoretical courses in ship construction, and used skills learned were used to establish schools of naval architecture in universities. These changes were facilitated by greater exchange with Europe and would also see the establishment of the American Society of Naval Engineers in 1888. These changes filtered out into a civilian sector that was also seeing rapid development in construction methods. Steam-powered tools were replaced by pneumatic tools, which allowed better plant organization, and were eventually viewed as superior to the pneumatic tools of Europe. This increasingly greater organization of shipyards, like Fordist factories through the introduction of scientific management, culminated in the huge shipyards of the First World War which quickly produced large ships from drawings.

The concept of industrialization which Thiesen addresses is a decidedly complex one in any industry but by not defining the term, the following text becomes even less distinct. Since the book ends with WWI this would seem to be the point of industrialization, but throughout the chapters there would appear to be points that could be considered industrialized. Furthermore by organizing the chapter along different themes (British theory, American wooden shipbuilding, etc...) they overlap chronologically which requires extra attention to recall which events are happening at contemporary times. Whether changing the organization would have solved the problem, it may have helped clear up an already complex issue.

In conclusion, minor problems aside, this text provides detailed and comprehensive information on a topic of considerable interest. A topic relevant to maritime historians, but also those interested in the complex and multivariate processes that helped to shape modern industrial society.

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2006 – 2007**

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EDITOR'S NOTE

Well, this is the first newsletter after having taken over from Nathan Richards as the newsletter editor and I am very excited to take on this position for two reasons: 1) it allows me to become more involved in AIMA, a group I've always felt is one of the world's leading organizations in maritime research, protection, advocacy and education, and 2) it allows me to meet the people who have made all this happen. With this said, I hope that I can keep up the good work that Nathan has been doing and I thank everyone for helping me with the transition. Special thanks to Jason Raupp and Karson Winslow my co-editors.

Contributors please note the deadline for contributions for the next issue (26,2) is **June 16, 2007**. Contributions may be sent via email to Jennifer.mckinnon@flinders.edu.au

AIMA/NAS Training Newsletter

Please send any contributions or comments to:

Cosmos Coroneos (acting Training Officer)

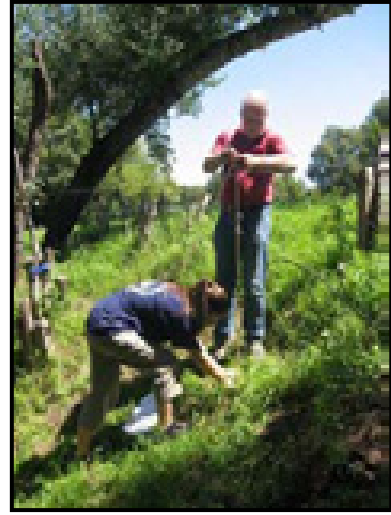
46 Gale RD, MAROUBRA 2035, ph/fax 9568 5800, cosmosc@ozemail.com.au

Issue 41

March 2007

News from New South Wales

Two courses have been run to date in 2007 – a Part 1 course in January and a Part 2 course in March. The venue for the Part 1 course was Aquatic Explorers, Cronulla where our excellent hosts were Steve and Lee Grow. Another Part 1 course is scheduled for the weekend of 26-27 May, and another for 22-23 November (Thursday/Friday).



News from Queensland

A Far North Reef and Wreck Dive Adventure

31 October- 7 November 2007

7 day liveaboard Adventure Diving and Archaeology Expedition with Undersea Explorer and Museum of Tropical Queensland (AIMA/NAS course Part 1, and portion of Part 2)

For more information and availability check the schedule on: www.undersea.com.au

News from South Australia

In February, Flinders University archaeologists taught an AIMA/NAS Part 1 training course as part of their annual Maritime Archaeology Field School. The course was a huge success and upon completion of the field school seven students also completed the requirements for Part 2. Based on previous conference attendance, six of these are now registered as AIMA/NAS Part 3. Congratulations to all of the participants. Many thanks to tutors Mark Staniforth, Jennifer McKinnon, Jason Raupp, Rick Bullers, Claire Dappert and Amer Khan, as well as Flinders University for providing the venue.

Currently Flinders archaeologists are organizing Part 1 and Part 2 courses tentatively to be held in mid-August. These will be advertised through local dive shops and dive clubs, as well as all South Australian universities and the Society for Underwater Historical Research (SUHR). If interested please contact Jason Raupp at (08) 8201-5533.

Jason Raupp

News from Victoria

A Part 1 course was scheduled for March at Aquatic Adventures in Rowville, but was cancelled at the last minute. We will attempt to run this course again soon.

AIMA/NAS graduate and MAAV member John Howell conducted a survey of the jetty remains at Dromana over the summer and submitted them to Cass for his Part 2 project.

The MHU are working with Oldrich Sadilek from Nagle College at Bairnsdale to run a Part 1 course for a group of 25 high school students at the end of March 2007. A report on the success of this program will be available in the next AIMA newsletter.

Cassandra Philippou

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COURSE STRUCTURE

Part I

A 2 day introduction to maritime archaeology which includes at least 8 hours of classwork in addition to practical work underwater and on land.

Being able to dive is not a requirement for attending this course. The cost of Part I varies between \$120 - \$160 depending on the cost of venue hire. Those who complete Part I will receive AIMA Associate membership for one year. This is normally backdated to 1st July but for courses after 1st April participants can opt for membership commencing in the following July.

Part II

The attendance of a Survey Day School, or lecture series, the equivalent of 2 days attendance at archaeology conferences and the completion of a short project.

The minimum requirement for the completion of Part II is the attendance of 7 approved lectures relevant to maritime archaeology, OR a Survey Day school which includes 2 lectures and practical survey work. Some of the Survey Day schools will be carried out above water to cater for non-divers. All participants are required to submit a satisfactory report on a short survey project undertaken by themselves. Participants are also required to attend the equivalent of a 2 day conference in order to gain a background knowledge of current work in the field of maritime archaeology.

Part III

The accumulation of 100 contact hours of tuition in six or seven subject areas.

The 100 contact hours can be accrued through special field schools of one or more weeks and/or through a number of weekend workshops.

Part IV

The presentation of an extended portfolio of work on an approved subject/project, including a report to publication standard.

The Part IV graduate will also have to have done a minimum of 12 weeks total on at least three sites since beginning Part II.