

**Report on 'International Capacity Building on Safeguarding the Underwater Cultural Heritage' (Kegiatan Bimbingan Teknis Cagar Budaya Bawah Air Tingkat Internasional Tahun 2014) training activities**

**Makassar, Sulawesi, Indonesia, 21 September – 7 October 2014**



**Ross Anderson**

**Report—Department of Maritime Archaeology, Western Australian Museum—  
No. 311**

**October 2014**

## **Acknowledgements**

Grateful thanks are extended to Dr Harry Widiyanto, Director of Cultural Properties and Museums, Ministry of Education and Culture of Republic of Indonesia for the invitation to attend the training, Desse Yussubrasta, Pahadi Bujang, Mita Indraswari, Shalilah Sri Prabarani, Fina and Any for assistance with travel and logistics. Also to the Regency of Selayar, and all other staff and participants who welcomed us to Indonesia with their generous hospitality. Terimah Kasih Banyak!

Cover image: Group photo of course participants at Fort Ujung Padang, Makassar

## **Background**

The Indonesian Directorate of Cultural Properties and Museums, Directorate General of Culture, Ministry of Education and Culture ('the Directorate') invited the author to participate as a trainer in an International Capacity Building on Safeguarding the Underwater Cultural Heritage (UCH) training course, to be held in Makassar, South Sulawesi between 21 September – 7 October 2014.

The 2014 program followed up on the inaugural 'International Capacity Building on Safeguarding the Underwater Cultural Heritage training course', held in Makassar and Barru, South Sulawesi in October 2013. These courses in turn followed earlier UNESCO Foundation training courses held for UNESCO Asia-Pacific region countries held in Thailand (2008, 2009, 2010) and SEAMEO-SPAFA courses held for ASEAN countries, also held in Thailand (2011, 2012). The participants included 19 Indonesian nationals and 8 ASEAN participants from Cambodia, the Philippines, Laos and Thailand.

The courses reflect a desire by the Indonesian Government to promote the ethical management of UCH in accordance with the recently enacted Law No. 11 of Year 2010 on Cultural Heritage, and following increased interest in underwater cultural heritage following the controversial commercial salvage and sale of artefacts from an historically and archaeologically significant shipwreck in Indonesian waters near Belitung Island in the Java Sea (the 'Belitung wreck'). The Indonesian Government now has a policy of only removing materials from shipwrecks for research purposes, although illegal salvage and looting remains a huge problem. In the month prior to the course commencing the Indonesian Navy arrested two vessels involved in illegal salvage of wrecks using Vietnamese nationals as workers, while 8700 ceramics were seized by police from a private house in Riau, West Sumatra where they were being prepared for sale to collectors. The courses provide an important avenue for participants from the UNESCO Asia-Pacific region and ASEAN countries to gain practical training skills in diving and underwater archaeological survey techniques, to share experiences on local and regional cultural heritage management issues and to network with other archaeologists and cultural heritage managers.

The course program included theory lectures, dry land survey practical exercises, pool exercises and underwater survey work on a shipwreck site. Twenty-seven participants from ASEAN countries including Indonesia, Thailand, Cambodia, Laos and the Philippines attended the course. The Directorate covered costs for all transport, accommodation, administration, logistics and course materials. Participants were accompanied by management and administration staff from the central Underwater Cultural Heritage office based in Jakarta, and staff from regional cultural heritage protection (Balai Pelestarian Cagar Budaya - BPCB) offices in

Makassar, Ternate, Surabaya, Serang, Gorontalo, Jambi, Jogjakarta, Jawa Tengah, Jawa Timur, and Bali.

### Training program

The course schedule was prepared by the Directorate of Cultural Properties and Museums and was predominantly practical in nature with two days allowed for lectures on underwater survey methods, conservation and cultural heritage management. Dr Harry Widiyanto, Director of Cultural Properties and Museums, Ministry of Education and Culture of Republic of Indonesia addressed the group on cultural heritage management, legislation and the current status and significance of UCH in Indonesia.

Lectures were followed by dry land survey exercises in baseline and offset measurements, trilateration measurements, using a profile bar and drawing frames at Fort Ujung Padang, Makassar. These were followed a day of underwater survey exercises in the Indonesian Army (TNI) swimming pool between 1.2 and 5m depth to practice baseline, offsets, trilateration and drawing frames, after which the course venue moved from Makassar to Selayar Island and the Bonto Sikuyu shipwreck site in 20 metres depth.



Figure 1 Dry land survey exercise at Fort Ujung Padang, Makassar

The aims of the training were to provide instruction in non-disturbance survey and cultural heritage management, and no excavation was undertaken nor were any artefacts raised from the shipwreck site. Following completion of the survey tasks,



participants were required to present recommendations for future archaeological research and cultural heritage management for the Bonto Sikuyu shipwreck site.



Figure 2 Participants drawing up survey results at Fort Ujung Padang, Makassar

## Safety

All participants were required to have diving certificates and the group was accompanied by a professional medical doctor trained in hyperbaric medicine. Individual medical check-ups were carried out on arrival at Selayar Island. The nearest recompression chamber is located at Makassar Hospital. Oxygen was carried aboard the boat and a local dive charter operator company with trained Master Dive Instructors trained in Dive Rescue accompanied the teams as safety divers on all dives. Experienced archaeological divers from the various Indonesian regional heritage offices were designated as technical team members to set up baselines, grids and site access lines. English was the primary language for course delivery, with interpretation in Bahasa Indonesian and whiteboard diagrams provided to ensure all safety and technical information was clearly communicated.

The abilities of participants ranged from experienced technical divers to novice divers. Following the pool survey exercise one participant was found to have limited swimming skills and was tasked as a diving support officer.

For the shipwreck site standard NAUI dive tables were consulted, with the maximum no-decompression dive times reduced by 20%, and compulsory 3 minute safety stop at 3 metres to increase the safety margins. Emergency hang tanks with regulators were placed on the 3 metre safety stop.

### **Shipwreck site**

Sulawesi and Makassar/ Selayar Island are strategically located at the intersection of maritime trade routes between the Spice Islands and South China Sea. The Bonto Sikuyu wreck site is named after the local sub-district and lies approximately one kilometre off the coast of Sangkulu-kulu River mouth. It is also known as the Sangkulu-kulu or Tile-Tile (pronounced 'Tilley-Tilley'—the local fishing village) wreck. Visible underwater remains consist of an approximately 40 x 20 square metre concentration of intact and fragmented Chinese ceramics, concretions, stone and coins on a generally flat sand-mud seabed with some coral reef outcrops. The Makassar Cultural Heritage Protection Office (BPCB) (Balai Pelestarian Cagar Budaya Makassar) is responsible for managing and researching the site, and liaising with the local fishing community and the site's discoverers, who also participated in all activities. Due to ongoing looting and lack of information about the site, the course also had cultural heritage management and research aims.



**Figure 3 Dive boat over Bonto Sikuyu site, Selayar Island**





**Figure 4 Underwater view of Bonto Sikuyu site showing nature of seabed and scattered intact and fragmented ceramics**

The Makassar BPCB is conducting further research into the artefacts so far recovered including 500 ceramics, and coins held by the Selayar Regency Museum. The site currently lies within the legal jurisdiction of the Regency of Selayar. Based on the style and quality of the ceramics the wreck appears to be Chinese junk from as early as the 12<sup>th</sup>-14<sup>th</sup> centuries (Song or Yuan Dynasties), although further research is required to confirm an exact provenance and date.

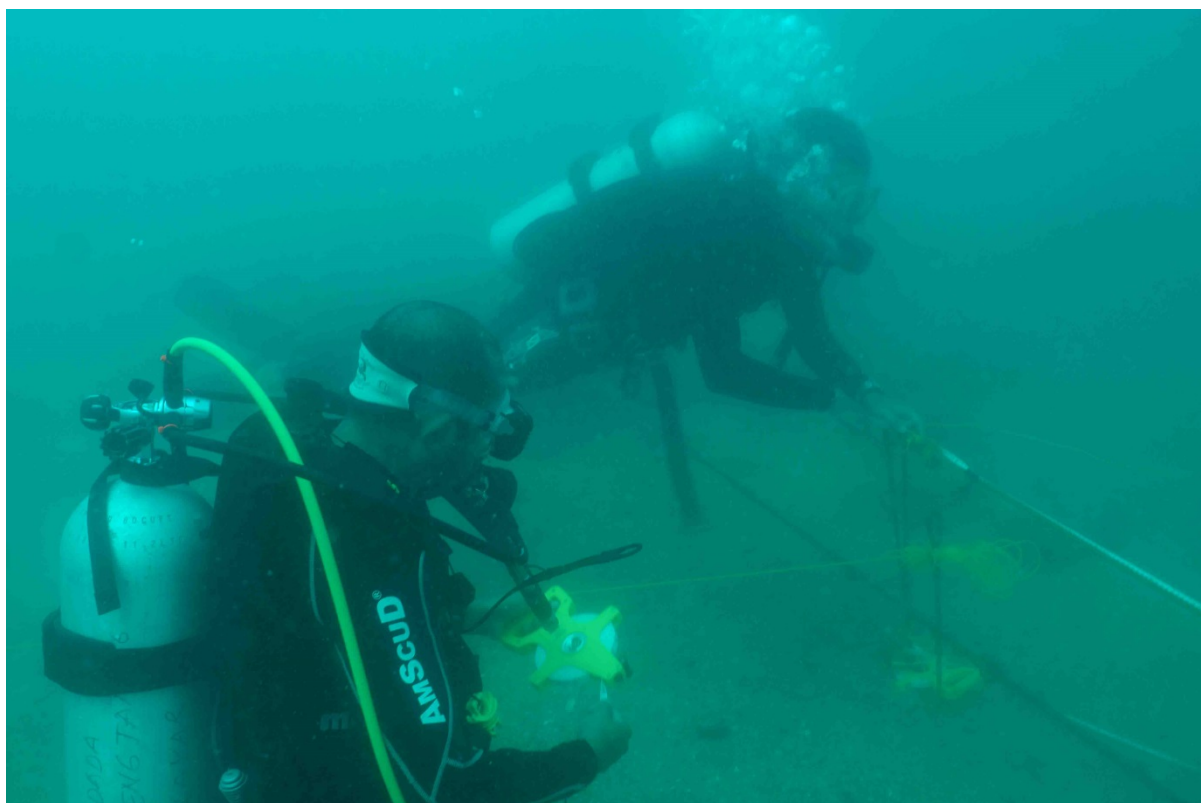


Figure 5 Participants surveying Bonto Sikuyu site



Figure 6 Chinese coins previously recovered from Bonto Sikuyu wreck site held by Selayar Museum





Figure 7 Small Chinese ceramic jarlet with lid previously recovered from Bonto Sikuyu wreck site held by Selayar Museum



Figure 8 Chinese ceramic bowl previously recovered from Bonto Sikuyu wreck site held by Selayar Museum

## **Survey strategy**

The group was split into five groups of between four and six participants, each with a trainer/ experienced archaeologist and safety diver. A 50 metre baseline was laid out and divided into ten 10 metre sections on either side of the baseline, each group being responsible for surveying two 10 x 10 metre sectors using a variety of techniques including baseline/ offset, trilateration, photography and videography. Each group completed data management tasks at the end of the day's activities including completing detailed dive and survey logs for each dive, drawing up their results on graph paper and downloading photographs. Following the compilation of individual group data the site plans were combined to create an overall site plan. Groups rotated duties to ensure all team members experienced various tasks.

Two dives were allowed for each group each day, with all diving required to be completed prior to 3pm due to local spiritual beliefs.

## **Museums and cultural heritage site visits**

A number of significant cultural and maritime heritage sites were visited including the Selayar regional museum holding material from Bonto Sikuyu site and Thai ceramics from at least one other shipwreck site in the region; Nekara Drum at Selayar which one of the two largest Dong Son drums found in Indonesia (the other found in Nusa Tenggara is in the National Museum); three bronze cannon in a private collection at Selayar; two iron cannon and iron stocked folding anchors with stud link chain from a 19<sup>th</sup> century wreck displayed at Padang fishing village, Selayar; and, World Heritage Listed Sangiran early man site, Candi Prambanan and Candi Borobodur near Jogjakarta, Central Java and their associated museums, heritage offices, research laboratories and staff.





Figure 9 Bronze cannon in private collection, Selayar Island



Figure 10 Padang fishing village shipwreck relics including two Admiralty anchors and three iron cannon





Figure 11 Candi Borobudur in Yogyakarta Special Province, Central Java has the earliest known seagoing ship depictions in Southeast Asia. The carved stone temple relief panels display fifteen different ship depictions, this image being the largest depiction which was the basis for constructing the experimental Borobudur replica ship.



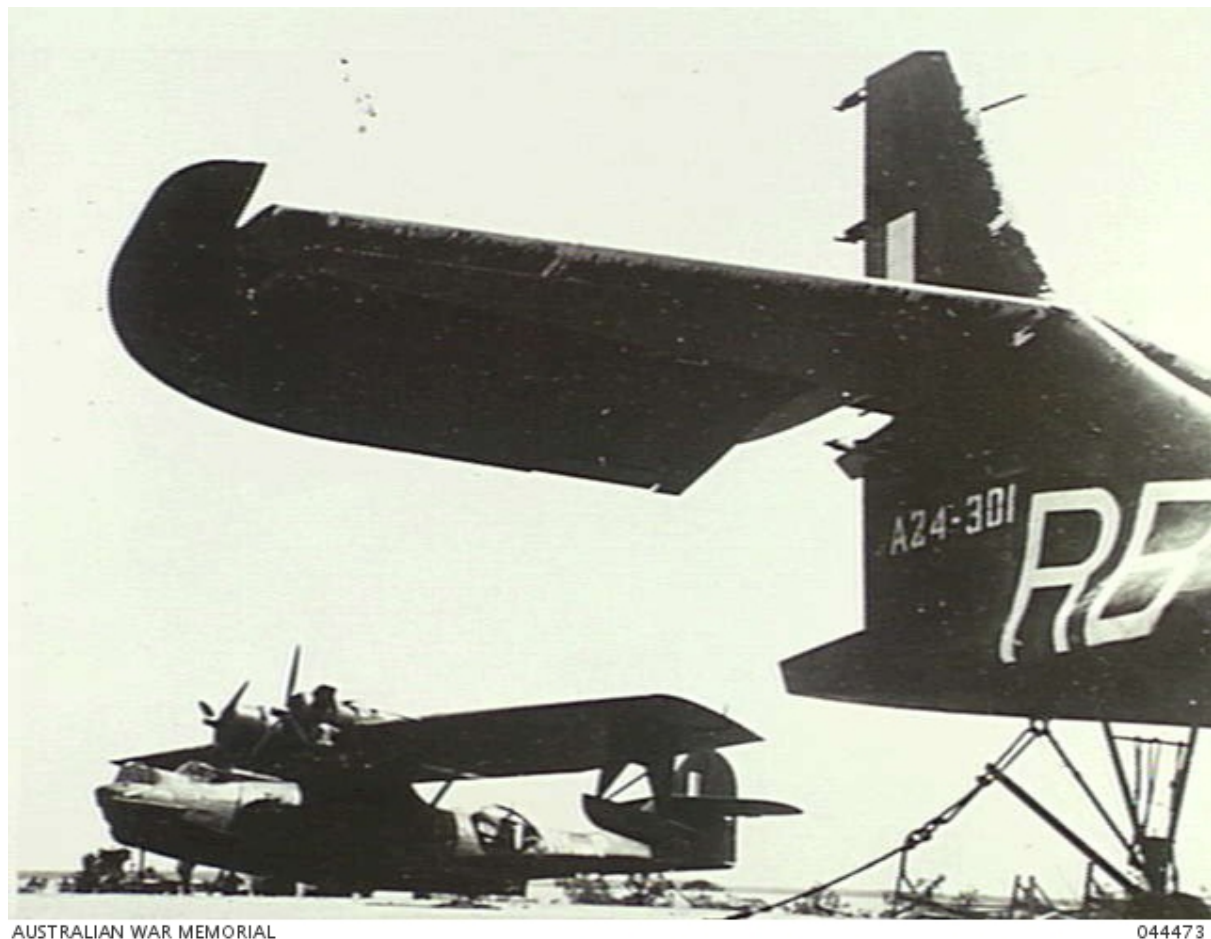
Figure 12 'Samudra Raksa' Borobudur replica ship museum at Candi Borobudur



## Royal Australian Air Force (RAAF) World War II crash sites in eastern Indonesia

Makassar BPCB maritime archaeologist Any Andriany advised that local fishermen have reported locations of three submerged aircraft sites off Makassar. One site lies in Makassar harbour between the dock and the breakwater, which the team has inspected and plan to conduct more survey work on in 2015. Another site lies in 40 metres depth. Another site is reported by fishermen to have 'two fuselages', possibly a Lockheed P-38 Lightning used widely in the Pacific theatre by the United States Air Force.

From August 1944 RAAF Catalinas from No. 42 squadron based in Darwin conducted mine-laying operations off Makassar, the Celebes and Pare Pare Bay, and two Catalinas are recorded to have been shot down during these operations ( [http://en.wikipedia.org/wiki/No.\\_42\\_Squadron\\_RAAF](http://en.wikipedia.org/wiki/No._42_Squadron_RAAF) viewed 9 October 2014).



**Figure 13 Catalina flying boats from RAAF No. 42 Squadron (Australian War Memorial Collection A04473)**

One Catalina captained by Flight Lieutenant Williams was lost during a minelaying operation on the night of 14-15 October 1944 and is believed to have been shot down by anti-aircraft fire between the town and the breakwater in Makassar harbour

with the loss of all crew (http://static.awm.gov.au/images/collection/pdf/RCDIG1070396--1-.PDF, p.366).

Any Andriany also reported that fishermen have recovered a plate with a map of Australia on its base from another submerged aircraft wreck site near Pomelaa in Southeast Sulawesi, the site of Japanese nickel mining operations during World War II between 1942 and 1945 (Sangadji 2002). An RAAF Consolidated PBY-5A Catalina A24-67 from No. 20 Squadron is recorded to have been shot down by anti-aircraft fire on 1 October 1943 during a torpedo attack on Pomelaa Harbour, Celebes with 9 fatalities. Lt Cdr Carr was the sole survivor (<http://aviation-safety.net/database/record.php?id=19431001-0>, viewed 9 October 2014; <http://www.rafcommands.com/forum/showthread.php?5026-Flight-Lieutenant-Stilling-No-205-Squadron> viewed 9 October 2014).

Other aircraft crash sites in the region include RAAF Consolidated PBY-5A Catalina A24-100 damaged by enemy fire, subsequently ditched and sunk by machine gun fire off the South Western Celebes Peninsula, all crew being later safely rescued by another Catalina (<http://aviation-safety.net/database/record.php?id=19441024-0>, viewed 9 October 2014).

Strategic bombing raids on Japanese oil infrastructure at Balikpapan and on a convoy protected by the Japanese cruiser *Isuzu* by No. 82 Wing RAAF resulted in one B-24 Liberator ditching into the sea with the loss of most of its aircrew in June 1945 including the No. 82 Wing Group Captain Donald McLean. A further five RAAF B-24 Liberators were lost during bombing operations over the Celebes and Borneo in July 1945. ([http://en.wikipedia.org/wiki/No.\\_82\\_Wing\\_RAAF](http://en.wikipedia.org/wiki/No._82_Wing_RAAF) viewed 9 October 2014).



AUSTRALIAN WAR MEMORIAL

NWA0725

**Figure 14 B-24 Liberator heavy bombers from RAAF No. 82 Wing at Fenton Airfield, Northern Territory around 1944-45 (Australian War Memorial Collection NWA0725)**



## Results

The course provided participants with training and practical experience in underwater surveying techniques, and conducting fieldwork as a team within various groups of diverse language and diving abilities. All site sectors allocated to the groups on the Bonto Sikuyu shipwreck site were completely surveyed. Further isolated artefacts (mainly ceramics) were scattered to the north and east of the main survey area, though time constraints meant that not all of these were able to be plotted in within the time allowed. No serious diving or safety incidents occurred. Participants discussed and made a number of recommendations for the future research and management of the site.

Due to time and equipment constraints, finalisation of the results including drawing up of the final site plan and grid drawings was not completed. Further research into the provenance and significance of the Bonto Sikuyu site and completion of the final site plan will be carried out by the Makassar BPCB.

Liaison with staff from Makassar BPCB has resulted in the report of the locations of at least four aircraft crash sites in Indonesian waters, of which at least one and possibly two (or more) have potential shared Australian-Indonesian heritage values as an World War II RAAF aircraft crash sites.

## Recommendations

1. That the Western Australian Museum continues to liaise with the Indonesian Directorate General of Culture, Ministry of Education and Culture to support UCH capacity building efforts in Indonesia, and the Southeast Asian region generally;
2. That the Australian Commonwealth Government Department of Environment and Department of Defence is advised of recently obtained information of potential evidence for RAAF World War II crash sites in Indonesian waters;
3. That further research be undertaken into National Archives records of RAAF aircraft losses in Indonesian waters to be provided to the Indonesian Directorate General of Culture, Ministry of Education and Culture to assist in management of sites with shared Indonesian-Australian cultural heritage values.

## References

Sangadji, A., 2002, Japanese involvement in nickel mining in Indonesia, [http://www.eca-watch.org/problems/asia\\_pacific/indonesia/japan\\_inco.pdf](http://www.eca-watch.org/problems/asia_pacific/indonesia/japan_inco.pdf), viewed 9 October 2014.

## Appendix A

### COURSE PARTICIPANTS

Luki (Lucky) Armanda	BPCB Aceh, Indonesia
Yusfa Hendra Bahar	BPCB Batusangkar, Indonesia
Yanto Manurung	BPCB Jambi, Indonesia
Hendra Gunawan	BPCB Serang, Indonesia
Deni Wahyu	BPCB Jawa Tengah, Indonesia
Harry Trisatya Wahyu	BPCB Yogyakarta Special Province, Indonesia
Wicaksono Nugroho	BPCB Jawa Timur, Indonesia
I Wayan Tenaya	BPCB Gianyar, Indonesia
Andriany	BPCB Makassar, Indonesia
Andi Siti Aulia	Dept of Fisheries, Makassar
Albertinus	BPCB Gorontalo, Indonesia
Julfi	BPCB Ternate, Indonesia
Albertus Napitupulu	Dit. PCBM, Indonesia
Jajang Sonjaya	Universitas Gadjah Mada, Yogyakarta, Indonesia
Justam Setiawan	Universitas Hasanuddin, Makassar, Indonesia
Kristiawan	Universitas Udayana, Bali, Indonesia
M. Nurul Fajri	Universitas Indonesia, Indonesia
Arung	Disbudpar Selayar, Indonesia
Madha	Pusarnas, Indonesia
Kamsan Heng	Ministry of Culture and Fine Arts, Cambodia
Sira (Jeep) Ploymukda	Underwater Archaeology Division, Thailand
Pornnatcha (Jo) Sangprasit	Underwater Archaeology Division, Thailand
Souksamone (Souk) Sonethongkham	Ministry of Information, Culture and Tourism, Laos
Souksavanh (Pong) Pakonkham	Ministry of Information, Culture and Tourism, Laos

Emil Nell B Bersamira	National Museum of the Philippines
Sheldon Clyde Jago-on	National Museum of the Philippines

## **INSTRUCTORS**

Ross Anderson	Department of Maritime Archaeology, Western Australian Museum
Laode M Aksa	BPCB Ternate, Indonesia
Yadi Mulyadi	Universitas Hasanuddin, Makassar
Bobby Orillaneda	Curator, National Museum of the Philippines
Agus Sudaryadi	BPCB Jambi, Indonesia
Erbprem Vatcharangkul	Head, Underwater Archaeology Department, Thailand

## **MAKASSAR BPCB TECHNICAL TEAM**

Budi	BPCB Makassar, Indonesia
Malik	BPCB Makassar, Indonesia

## **DIVE SAFETY TEAM**

Muchin	Instructor and Owner, Spermonde Dive Centre, Makassar
Ismail	Instructor, Spermonde Dive Centre, Makassar
Ramli	Instructor, Spermonde Dive Centre, Makassar
Dr Teddy	Medical Doctor