

**USER's GUIDE to SHIPWRECK  
GALLERY RESOURCES:**

**THAI CERAMICS, A CASE STUDY**

**By  
Jennifer Craig  
And  
Western Australian Museum**

**Australian Endeavour Executive Award 2012  
University of Western Australia  
McGill University  
Oxford University**

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# 1 Introduction

I entered the Shipwreck Galleries under the supervision of Jeremy Green, Head of the Department of Maritime Archaeology as an intern from March 7<sup>th</sup> to July 2<sup>nd</sup> 2012. This opportunity was made possible by the financial support of the Endeavour Executive Award, a merit based grant towards professional development. The ultimate aim of this internship was to become an efficient researcher during the often limited time available for analysis. Achievement of this was broken down into the following three broad categories:

- how to access Museum resources
- how to add to Museum resources
- learn what questions can be asked about the processes of a Museum and appropriate times to do so

This internship developed from a need recognized within my career to learn how to note patterns within a corpus of artefacts. My doctoral thesis is on beads recovered from shipwrecks. I would like to organize beads recovered from underwater sites into the same chronological-typology structure of categorization as ceramics – so that they too can be yet another tool used for dating a site.

In order to learn the processes of museums, specifically the Department for Maritime Archaeology at the Shipwreck Galleries, Green and I decided to thread a particular focus on ceramics recovered from shipwrecks excavated in Southeast Asian waters.

## 1.1 How to use this document

This document is a user's guide to the Shipwreck Gallery resources. It is systematically laid out so that the methodologies are generic and can be adapted to any study. The framework of this document consists of sections which are broken down into the theory of how to conduct research within the museum's archives. This is followed by the practical example of Thai Ceramics. The Table of Contents should be used as a comprehensive key to this document. For example, if you would like to know how to find colour slides on the server then refer to the appropriate subsection and its associated step-by-step guide in the appendices.

## 1.2 Pre-entry – what's online

The Western Australian Museum (henceforth WAM) has an overarching mission statement that each of its specialized departments contribute to, this can be found online at <http://museum.wa.gov/about/background-mission>. Another click later and you have access to all the Museum's annual reports (<http://museum.wa.gov/about/corporate-documents>).

Each department has its own mandate, these too can be found online (<http://museum.wa.gov.au/research>). The Maritime Archaeology Department has its online mission statement at <http://museum.wa.gov.au/research/departments/maritime-archaeology/>. Hundreds of reports produced by this department (otherwise known as grey literature) can be found at <http://museum.wa.gov.au/research/departments/maritime-archaeology/maritime-archaeology-reports-001-100>.

It is possible to search for information about WAM's collections to get an idea of what sort of information is available at the Museum relating to its collections. To seek information on shipwreck or maritime archaeological artefacts click, the following links:

<http://museum.wa.gov.au/research/databases>

<http://museum.wa.gov.au/maritime-archaeology-db/artefacts>

Type in search terms (e.g. THAI CERAMICS) [http://museum.wa.gov.au/maritime-archaeology-db/search/luceneapi\\_node/THAI%20CERAMICS?type=artefact](http://museum.wa.gov.au/maritime-archaeology-db/search/luceneapi_node/THAI%20CERAMICS?type=artefact)

Then select each artefact of interest and you will be presented with a page containing further information on that specific object(s): <http://museum.wa.gov.au/maritime-archaeology-db/artefacts/abb4255-ceramics>. The letters 'abb' followed by numbers is the official artefact registration number of the Museum for the Abbott Collection. This can be used as a reference point for discussions with Staff within Shipwreck Galleries. Please keep in mind that the Western Australia Museum Website is contently updated and these links may change after the production of this report.

### **1.3 Orientation to Museum**

You have done what it takes to walk through the front door and get started on your project...now what?

The Shipwreck Galleries Museum is one of six Western Australian Museum branches/sites. Organizational Chart (Appendix 1) from 2010/11 Annual Report<sup>1</sup>

*The Museum Act 1969* sets out the WA Museum's functions. In summary these are to educate; collect; preserve; research; publish; and provide facilities for the education, display and use of the state's collections<sup>2</sup>.

Maritime Archaeology first started in 1971 at what is now the Fremantle Art Centre (in the Artefact database its noted as the Weick Gallery-WG, which became an additional collections storage facility when the department moved its office to Cliff Street). The Staff, equipment, offices and storage moved between 1979-1981 from the Finnerty St (current Fremantle Arts Centre) Mariner's Museum<sup>3</sup> to the Shipwreck Galleries on Cliff Street. The Head of the Department of Maritime Archaeology from 1971 to present is Jeremy Green.

#### **1.3.1 Front of House**

The Visitor Service Officers (VSO) will greet you upon entry to the Museum. I recommend going for a tour through the galleries to get a flavour for the message and interaction the Museum has with its interested public. The VSOs can provide you with details about the artefacts on display and discuss the overall exhibitions.

#### **1.3.2 Initial meetings**

Certainly allow for some time to get to know the flow of a place. Meet with the supervisor/colleague to discuss your living situation; and enquire as to who to meet

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<sup>1</sup> Accessed May 17<sup>th</sup>: [http://museum.wa.gov.au/sites/default/files/WAMuseum\\_AR\\_2010-2011\\_WEB.pdf](http://museum.wa.gov.au/sites/default/files/WAMuseum_AR_2010-2011_WEB.pdf)

<sup>2</sup> Corporate Strategic Plan, Accessed May 17<sup>th</sup>:

<http://intranet.dca.wa.gov.au/museum/Lists/Announcements/Attachments/265/Corporate%20Strategic%20Plan%202006-2011%20-%20REFORMATTED.pdf>

<sup>3</sup> Accessed May 17<sup>th</sup>: <http://www.fac.org.au/history>

within the Museum as this will depend on what research or activities you plan to conduct. The supervisor will also most likely arrange for an office space and any equipment requirements as well as, and very importantly, an introduction/orientation to the staff and work place. This process is integral to building your understanding of how the Museum functions, where people's offices are and general health and safety rules.

### **1.3.3 Offices & Storage**

The offices for the Department of Maritime Archaeology share the same space as their storage for artefacts and library. The office for the Head, Photographer, three Curators, two Assistant Curators and the Collections Manager are all in the Shipwreck Galleries. Swipe cards are required for access into the main office area and then all the offices are open doors except the Collections Manager due to sensitive material. The storage space is segregated by artefact material type. Specifically, organics are kept at the centre of the general office space, while inorganics are kept to the back of the office floor space. The entire open-space room has controlled temperature and humidity. Collections staff do periodic assessments of these stored items to ensure their stability. Any objects that undergo a condition change have to be returned to conservation for assessment and likely re-treatment. The Materials Conservation Department is located adjacent to the Maritime Archaeology Department's offices. In this department are various specialists (paper & textiles conservator, glass & ceramic conservator, ferrous conservator, non-ferrous, wood, two research officers and a technical officer).

There are other offices on the premises such as the Education Building, Maritime History Department, and the Conservation wet lab and offices. Maritime History has an image and vessels database which is only available in-house. Special permission from this department's staff must be attained to have access to these records due to sensitive information, intellectual property and strict copyright issues.

### **1.3.4 Resource Access**

The information you require for your research is available digitally on the server. The library consists of books and articles that must remain on the premises and others that may be brought out (see Appendix 2). Susan Cox fulfils the role of administrator and librarian for the Maritime Archaeology Department. The Department's library is only one of a network of libraries so if the reference you are looking for is not in the building it may be available through inter-library loan.

### **Server files**

The Department's archives are digitally stored on their server. Access is granted to each file separately with passwords and one can view all the records one has requested access to that are digitally uploaded. See Appendix 3 for details on how to do so.

## ***1.4 Background of Thai Ceramics – Origin of resources***

As this is a world renowned institution for maritime research the staff have, of course, been invited to conduct projects abroad. The impetus for the Thailand wreck excavations drew from work that was taking place in Australia on Dutch shipwrecks in Western Australia and Art History in South Australia. The people who worked in South Australia Art Gallery, Western Australia Museum's Department of Maritime Archaeology and the

Thailand Fine Art's Department pooled their resources to conduct in-depth study of Thai ceramics.

### 1.4.1 Timeline

This section is the story of how the Thailand partnership came to be. It is compiled according to a chronology of publications available to any interested researcher. To appreciate this process I included a timeline. I view this timeline as an upside-down stratigraphy (from earliest to most recent) in which each layer is an Event that is bracketed by the involvement of scholars who contributed major efforts towards the success of the overall project.

**Figure 1: TIMELINE – waves of research**

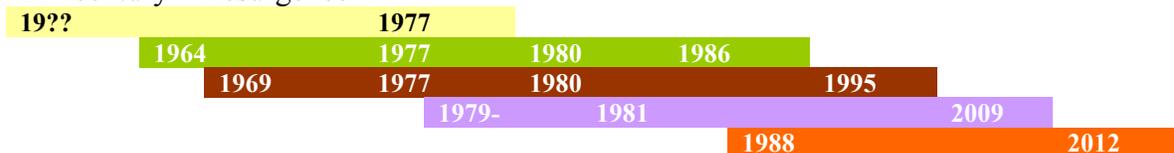
1960's to late 1970's – Howitz Event

Mid 1960's to late 1980's – Green Event

Late 1960's to Mid-1990's – Burns/Richards Event

1980's to early 21<sup>st</sup> Century – Baker Event

21<sup>st</sup> century – Resurgence



This timeline is a visual representation of events in time when a particular scholar produced influential works towards the study on Thai ceramics as they relate to the resources available at the Department for Maritime Archaeology in the Shipwreck Galleries. As you can plainly see from the above timeline the year 1977 is a year of simultaneous productivity. What makes this significant is that it occurs across an enormous geographic region. The top line representing the Howitz<sup>4</sup> Event is taking place in Thailand, the second line representing the Green Event occurred in Western Australia, while the Burns/Richards<sup>5</sup> Event happened in South Australia. Although it is not included for this report Roxanna Brown<sup>6</sup> was also publishing works on Thai ceramics in the United States of America and John Guy in the United Kingdom. At the early 1980's Patrick Baker, as the Department's Photographer organized the photos from the excavations in Thailand. These photos are an important record because, for some of the ceramics excavated, this is the only remaining visual record.

Instigation of the partnership occurs with Dr Pensak Howitz, a terrestrial archaeologist in Silpakorn University, contacted by Jeremy Green because he and his team were finding what was thought to be Thai ceramics on Batavia<sup>7</sup> and Vergulde

<sup>4</sup> Howitz, P.C. 1977. Two ancient shipwrecks in the Gulf of Thailand. A report on archaeological investigations, *Journal of Siam Society*, 65:1-22

<sup>5</sup> Richards, D. 1977. Thai Ceramics: Ban Chiang, Khmer, Sawankhalok Ceramics; The Art Gallery of South Australia, Adelaide, with Grant from Crafts Board of the Australia Council.

<sup>6</sup> Brown, R. 1977. *The Ceramics of South-east Asia: their dating and Identification*; Oxford in Asia Studies in Ceramics, Oxford University Press, Kuala Lumpur.

<sup>7</sup> Green, J.N. 1989. *Retourschip Batavia: wrecked Western Australia 1629, Excavation Report and Artefact Catalogue*; BAR International Series 489, Oxford.

Draeck<sup>8</sup>. By 1979 these two scholars worked together and produced the first publication on a joint Thai-Australian initiative<sup>9</sup>. Green also produced numerous publications on the Ko Kradat excavation (see Appendix –23ii and Bibliography). According to various correspondences in Green’s Southeast Asian Files and the Department’s File MA 81/1 in the second year of fieldwork during 1980 Green is contacted by Dick Richards of the Art Gallery of South Australia and by 1981 the Abbott Collection is donated to Shipwreck Galleries (for details see Section 2.6). The publications made possible by the analysis of this reference collection led to the important Green, et al 1981<sup>10</sup> publication and many others. The projects *Thai Ceramics Archaeological Project*<sup>11</sup> and *Asian Ships and Ceramics in Trade*<sup>12</sup> are formed under the overarching *Thai Ceramics Dating Project* with affiliations Australian Research Grants Scheme with approval by Thailand’s National Research Council and worked jointly with Department of Fine Arts, Archaeological Division and the Research Section in the Third Branch in Sukothai Province. For more detail see Appendix 4.

## 2 Resource 1 – Artefacts

### 2.1 Collections Management

As a researcher interested in artefacts your first contact should be the Collections Manager. Within the Maritime Archaeology Department at the Shipwreck Galleries, this is currently Jennifer Rodrigues. In our initial meeting we held a broad discussion of why I am here and what goes on as a Collections Manager within this museum. By noting the responsibilities in Rodrigues’ position I was able to understand the broader context of the database structure. For example, collections management or the collections manager’s job is ongoing and starts from the point an object is raised, as from that point it needs to be ‘managed’. The database records the various movements of an artefact cared for by the department. These movements may entail artefacts recovered from the field, artefacts in conservation, artefacts on exhibition within or without the museum, sent out for analysis or identification, or artefacts returned to the Department following completion of treatment. The database has a field to track all movements of an object in order to record its history as well as condition change. For further details see Appendix 5 overview responsibilities.

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<sup>8</sup> Green, J. (ed) 1977. The AVOC jacht *Vergulde Draeck*: wrecked Western Australia 1656, Part I; BAR Supplementary Series 36(i)

<sup>9</sup> Howitz, P. 1979. Ceramics from the Sea, evidence from the Ko Kradat shipwreck, excavated 1979. Archaeology Division, Silpakorn University, Bangkok.

<sup>10</sup> This publication notes an important event! Specifically page 45- The work done on the ceramics (Chinese blue-and-white porcelain and porcellaneous-stoneware) of which 4 had inscriptions (the most exciting one of which read ‘Made in the Jia Jing reign of the Great Ming Dynasty). This places the piece at 1522-1566. Other supporting evidence also places this wreck at the mid to end of the 16<sup>th</sup> century. This important fact proposes the terminal date for Sawankhalok pottery to move back a century.

<sup>11</sup> Rosemary Harper was the Department’s Illustrator accompanied Don Hein and Dick Richards to look at kiln sites in Thailand.

<sup>12</sup> A major question as part of the Thai Project included were goods shipped through the Thai isthmus (like in the Philippines) through channels instead of sailors going south around the peninsula.

## **2.2 Storage and locating (refer to section 1.3.3)**

Some records are held in the Photography Archive – with over 30 years of backlog, there is still need to digitize the photographic records. Part of my return to the Department of Maritime Archaeology was to digitize some photographic records. The Abbott Collection was digitally photographed and this information added to the artefact database, along with measurements and weight.

### **2.2.1 Database orientation**

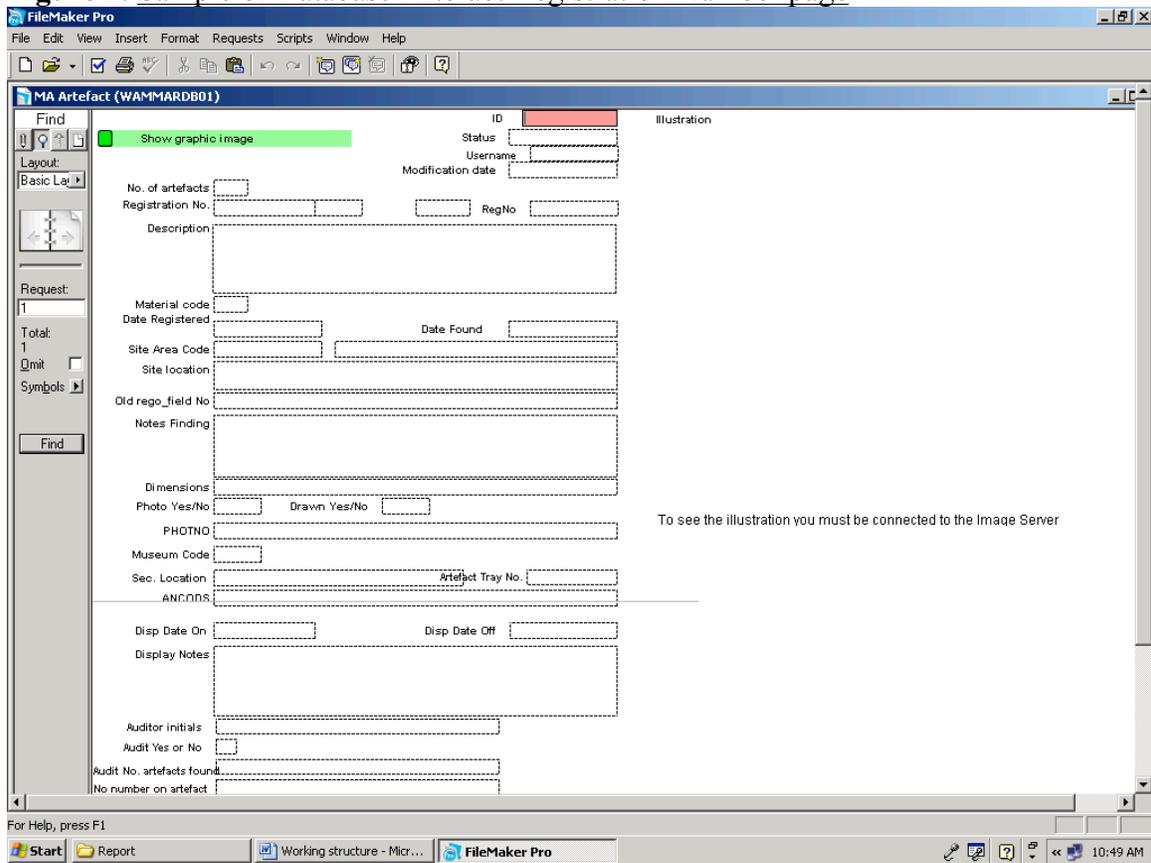
Filemaker Pro software is used to produce the database. This software was chosen over others because Filemaker has the effective ability to export data into various formats that can cater to other types of databases if need be. Another benefit of this program is that as you enter details into the fields the information is automatically saved so there is no need to make the extra step of saving every time; and, of course, databases are reliable and researchers can do analysis with them depending on the researcher's line of query.

This department has thousands of objects. Spreadsheets are not reliable for storing information about archaeological objects and registration numbers (i.e. Excel, etc.) because excel fields have values and if the user is unaware of this, the program can automatically change numbers in fields that it thinks is a value or if symbols it does not recognise are entered into fields. To lose the record would be a waste of many hours and loss of information that may never be retrievable again. There are also written registers in the collections room available for viewing which acts as a back up to the database information.

During my time here I looked at other museum online collections and found that by understanding how the Filemaker software can be used for searches, I used similar search parameters with other museum databases.

To access the database page see Appendix 6. This page also helps to explain how to conduct searches and make the information available off the server.

**Figure 2:** Sample of Database Artefact Registration Number page



### **2.3 Photography**

The world renowned photographer Patrick Baker is the go to person for all questions about ANYTHING to do with photography. Photography largely takes place in the Dark Room. It is best to have a clear idea of your questions and audience before you start to photograph. This became very evident to me when I realized after largely completing the task of photographing the Abbot Collection that the base of a pot is a major diagnostic of manufacture, type and age. Once you have established what you would like to capture in a frame it is best to talk with the photographer about which camera to use and any details you should be aware of about how best to fix the settings on the camera, placement of the lights, placement of the artefact, etc. Make sure to have a scale the size appropriate to the object you are photographing, a colour scale and the identification of the object included in all photos. The software used to initially store the photograph on the computer, directly from the camera is titled CaptureOne, details of how to use this are in Appendix 7. This guide is an example for ceramics but also note there is a pre-existing document for coin photography (Green 2010 - Report No. 253).

When you have completed your photography session and would like to edit your photos then Photoshop software is used here for that, details of how to edit in Photoshop are available in Appendix 7.

## **2.4 Measurements/Weight**

Photography provides a largely visual record but patterns are not always visible. It is best to take measurements, using callipers and weights using a scale. This will vary according to the size of the object you are working with. It is best to converse with the Collections Manager to decide what tools to use to measure and weigh. This will also provide the opportunity for the Collections Manager to note what is available and what may be needed, ensure equipment is working and calibrated. When measuring it is archaeological best-practice to generically measure the widest and highest point. See Appendix 8 for the Department's standardized unit acronyms.

## **2.5 Data Entry to Database**

The Department has standardized acronyms for data entry. Ms Myra Stanbury created the Materials Prefix Code sheet, Appendix 8.

Some of the information held on the database is sensitive, for example references to donors or finders of artefacts. The information must be kept secure. The security measures in place are:

- Access granted only to staff to change any information
- Separate access granted to visitors/interns for viewing database records

When staff are not available and to not to be held back from proceeding with your work it is best to record the information you are gathering on lined paper/excel spreadsheet and keep it in a safe place to be entered into the database at a more convenient time.

## **2.6 Case Study - Abbot Collection**

For details on the Abbot Collection acquisition information can be found in File MA 1/81 (for details see Appendix 9) located in the Department for Maritime Archaeology office and storage space. This section was largely generated through discussions with Ms Myra Stanbury. Generally, this donation was possible through the Commonwealth Tax Incentive for the Arts (see <http://law.at0.gov.au/atolaw/view.htm?docid=TXR/TR961/NAT/ATO/00001>).

The Abbott Collection wares were donated by the Chair of the Art Gallery of South Australia's Board Committee Michael Abbott to the Department of Maritime Archaeology as a reference collection to assist in the identification of the Southeast Asian ceramics that were studied during the Thai Ceramic Dating Project (see section 1.4.1 for details). Its specific use was as an aid for the identification of Southeast Asian trade ceramics recovered from 17<sup>th</sup> and 18<sup>th</sup> century Dutch East India Company shipwrecks lost off the coast of Western Australia, and cargoes from 14<sup>th</sup> and 15<sup>th</sup>-century shipwrecks in the Gulf of Thailand (Art Gallery SA<sup>13</sup>).

Dick Richards, of the SA Art Gallery, is an expert on Southeast Asian ceramics and he was responsible for selecting the wares from the donor's collection. The

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<sup>13</sup> Art Gallery of South Australia, About the Collection, About the Asian Collection, Available on the World Wide Web at: [http://www.artgallery.sa.gov.au/agsa/home/Collection/about\\_asian\\_collection.html](http://www.artgallery.sa.gov.au/agsa/home/Collection/about_asian_collection.html) Viewed April 23<sup>rd</sup>.

Department for Maritime Archaeology acquired a selection of these wares while the rest stayed with the SA Art Gallery and was catalogued by Richards<sup>14</sup>.

### **2.6.1 Catalogue**

When the photography and data entry is complete it is useful to create a catalogue. This can also be helpful to museum staff as an outcome of work here that can be forwarded on to other interested people. The catalogue I made was in Adobe Illustrator, the steps of which can be found in Appendix 7. A draft catalogue itself is located in Appendix 25. As I step away from this report I move towards the publication of the catalogue.

## **3 Resource 2 – Colour Slide Collection**

Without doubt this is an important resource for the record collections of the Department of Maritime Archaeology. The abundance of information held in these records led to many table drafts and general discussions with the photographer so as to understand how the archive came to be as it stands, where to find the information and how to add further digital information.

### **3.1 History of Indices**

The organization of the photographic archive in the Department of Maritime Archaeology is ordered sequentially in chronological order of the date of activity and grouped according to project. A helpful index is located on the server (see Appendix 10). The date sequence is according to the date Black and White (B&W) photos were taken (see section 4.1 for further information), this is with intention that if one needs to enquire further they can turn to the photographer themselves and/or their personal diaries for further information (also known as DayBooks, see section 5 below). Keyword searches can also be conducted on the database (see Section 3.3).

#### **3.1.1 New equipment adaptations**

As the museum grew, so did the need for adaptations to the most up-to-date equipment. Computers are the main tool for any archaeologist, ‘striving to excavate underwater archaeological sites with the highest degree of accuracy that modern technology allows’ (Hamilton 1980:6). The Department of Maritime Archaeology first began with type-in programmes on a dot matrix in the early 80’s with 5½ floppies. Computers came in during the Batavia reconstruction. The shift from IBM to Mac happened in the late 1980’s when Paul Hundley, who was part of the Batavia reconstruction team, brought to the team’s attention a MAC suitable programme called MACSURF. This incorporated the programming when digitally drawing the lines of ships, so this was thought as an efficient way to proceed (Patrick Baker pers. comm. April 26<sup>th</sup> 2012). Correspondences on these developments were shared between the Shipwreck Galleries Head and Museum Directors in Europe at the end of the 1980’s through to the early 1990’s (Jeremy Green files on Southeast Asia). In fact this shift was so well established that by the early 90’s Green is contacted to mentor maritime archaeologists in Europe through their use of

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<sup>14</sup> Richards pers. comm. April 19<sup>th</sup> 2012; Richards, D. 1995. South-East Asian Ceramics: Thai, Vietnamese and Khmer from the collections of the Art gallery of South Australia, OUP Kuala Lumpur.

processors on mapping. As Green has always been a ‘gadget man’ it is no surprise that he kept tabs on what was developed in the area of high-technology. The late 1970’s was a booming time for digital record keeping with underwater tools. At this time was when American’s Institute of Nautical Archaeology developed the Sonic High Accuracy Ranging & Positioning System (SHARPS) (Hamilton 1980) and in the United Kingdom Photomosaics developed (Baker and Green 1976). This is the longest running tool to express the visual of a site so therefore the most highly influential technology. This methodology, of course, requires photography. Subsequently the archive of on-site photos available in this Department’s archives is astonishing!

### 3.1.2 Originals (both Colour and B&W)

The original negatives are still available and housed in the East Darkroom archive. They can all be found in the dark grey cabinets Numbered MA1 to 5000. See figure 3 in Section 4.1.2.

### 3.1.3 Contacts

Colour negatives are in individual frames then slotted in individual sleeves on a single plastic A4 sheet ranging in number up to 20 per sheet (see figure 4). The originals are stored in the East Darkroom. An index to locate these can be found on the server (see Appendix 11).

**Figure 3:** Sample of colour contact



## 3.2 Digitize slides – how to

See Appendix 12

### 3.2.1 Database

See Appendix 13

### 3.2.2 Data collection/metadata

Bob Richards a technical officer with computer interests who worked in the Department from 1976-2001 started including in the software data the information on the slides' frame (Baker pers. comm. April 26<sup>th</sup> 2012). The slide frames which encircled the original photo negatives (see figure 3). This information continues to be gathered and incorporated onto the server in direct relation to the scanned individual slides (see Appendix 14).

#### Table Key – what information held on which contact/slides

KSC I Contact #s	Notes written on sleeve
---------------------	-------------------------

Short description	Slide number (T_#) (V:\MaritimeArchaeologyStorage\MAD Colour slides scans ONLY\B3.Drawer.TMPC,T1to2540\Pottery with scales\Ko Kradat)	Fieldwork Artefact number
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### 3.3 Case Study – Thai Ceramics

To locate where the files I created are stored see Appendix 15. When files are created on the server it is important to relay this information to the staff in charge of that portion of museum responsibilities, in this case the photographer.

#### Tables – FILE: Pottery with scales

The tables provided in the appendices provide some general information on description of the photograph, the individual numbers of the scanned slide and artefact numbers (when these were on push-pin boards) in the original photos. The sites without any artefact number on a push-pin board in the colour photos from the B3 file do not have tables.

#### 3.3.1.1 Ko Kradat

See Appendix 16

#### 3.3.1.2 Ko Si Chang 1

See Appendix 17

#### 3.3.1.3 Ko Si Chang 2

No table because no artefact identification numbers in the photos viewed in Drawer B3

#### 3.3.1.4 Ko Si Chang 3

No table because no artefact identification numbers in the photos viewed in Drawer B3

#### 3.3.1.5 Pattaya

No table because no artefact identification numbers in the photos viewed in Drawer B3

## 4 Resource 3 – B&W negatives

### 4.1 History of Indices

The historical sequence can be used as keyword search. By this it is meant that the number system of original photos are based on levels within an excavation (i.e. Ko Si Chang had multiple seasons and the location of B&W negs are grouped and stored in the BlueBooks, see section 4.1.2, according to when they were originally taken, so there might be a few photos then a gap wherein other project photos exist then another set of photos from Ko Si Chang). On the Filemaker system this looks like the numbering of B&W negs skip but the rational is that they are ordered according to original fieldseason dates.

#### 4.1.1 Originals

The original negatives are still available and housed in the East Darkroom archive. They can all be found in the dark grey cabinets Numbered MA1 to 5000. See figure 3 in Section 4.1.2.



**Figure 4:** Photography archive in East Dark room.  
Red circle shows which cabinets contain the Black and White photo negatives. The cabinets below store the colour slides.

#### 4.1.2 Contacts/BlueBooks

Black and White negatives are stored on reels of six. They have been scanned in six rows per page together and taped/glued into the Blue Books (see figure 5 and Appendix 18). The originals are stored in the East Darkroom. An index to locate these can be found on the server (see Appendix 11; Appendix 13).

**Figure 5:** Sample of B&W contact



## 4.2 Digitized negatives

All the black and white negatives have been scanned and are available on the server. Only a select few are scanned individually as this is done a needs-based requirement.

### 4.2.1 Database

See Appendix 13 and Appendix 19

### 4.2.2 Data Collection/metadata

There is a lot of information stored on and around the negatives/contacts. One of the ongoing projects here is to collect this information and record it on the digitized individual negative metadata. To preserve this information as I trawled through it I created tables. Below is a sample of how to organize what you may find.

**Table Key – what information held on which contacts/slides**

Listed on WAMuseum_DMA_ColorSlideIndex.pdf	Index	Contact #					
Description	Quick reference page no.	Individuals <sup>15</sup>	Additional Info.	In MAD B&W neg scans ONLY	With ID placard	Noted while looking through server contacts	Diagnostic*

\*This means the photo is a close-up of a certain aspect of the object in the photo. It may tell us specific information about design that can help to narrow origin and time-frames.

<sup>15</sup> Apparently there is a whole file of these but I did not record their access properly and have enquired

### **4.3 Case Study: Thailand**

In Appendix 20, the following sites are included in the table: Ko Kradat, Ko Si Chang 1, Ko Si Chang 2, Ko Si Chang 3, Pattaya and Thailand.

## **5 Resources 4 – Day Books**

### **5.1 Introduction**

Day Books are the original field notes. Green has kept excellent record of his fieldwork and makes these available to users of the Department's Library. The secretary Sue Cox has photocopied the originals and bound the photocopies in light blue paperbacks with a black spiral bind. These are shelved at the far end of the Library, over the Head's office and numbered. They are not to be moved from the premises. These books provide the details of how site plans were thought out according to the environment and equipment available. It also includes artefact registration before computers were brought out to sites. Search out all the DayBooks that have to do with your site. Go through each book and make general notes of what is in them. This will be a fountain of information for you to relate all the other information you gather in publications, archives etc. Put this information into a table so you can cross reference what happened in chronological order.. The originals are first a blank red book with lined paper and have on the front an ID site name + # (i.e. Bunbury Lot 881 – the lot and number refer to the actual property number as registered in the Real Estate world). There are also Departmental field books for each field work project containing notes by all of the field participants. These are available in digital and hard copy from the Departmental Secretary.

### **5.2 Extracting information**

This is a highly beneficial and often entertaining step in the process of gathering information from the museum. As noted above, the Day Books are the on-the-ground initial record of the site and the excavated artefacts. Go through these thoroughly and pull out the information relevant to your interests. The first thing I did was go to the shelf these sit on and check the title of every Day Book. Any Day Book that had the word Thailand in the title was brought to my desk. I went through each book and extracted information to fill in the table key below (Day Book Deconstruction) and placed the books not relevant to my study in the 'library book returns' stack next to the library card-out box on top of the files next to the pigeon holes for departmental staff.

#### **Table Key – DayBook Deconstruction**

<b>Day Book #;</b>	<b>Specific notes on pottery, dates bolded dd/mm, sw = stoneware, ew=earthenware</b>	<b>Helpful notes on photography– dates, etc.;</b>	<b>Site location</b>
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### **5.3 Case Study: Thailand**

To appreciate the spatial context of what these Day Books entail, it was helpful to fill in the above table (see Appendix 21) and collect the final plans from publications about

each site. Often the books entailed thoughts about how to display the final plans but the plans themselves are created on computers and post-fieldwork.

The original plans can also be found in the colour or Black and White digitized files (see Appendix 11). However, I found it most helpful to read through the Australian Institute for Maritime Archaeology Bulletin papers and note which plans most clearly displayed the provenience of shipwreck and cargo. See Bibliography and Appendix 22.

## 6 Discussion – excavating the museum

This report is viewed as a working-paper to the process of analysing artefacts stored in museums. It is largely background information that has helped in the understanding of the whole picture behind the small artefact/photo. When a Museum stores an object there is a story that follows that object from its creation to its current storage or display repository. I essentially excavated a functioning museum. This paper shows the details of my methodology in approaching a museum as though I excavated its stores.

This study is an ongoing process of testing a methodology of ‘excavating a museum’. Ceramics were chosen as a starting point to learn the functions and processes of a museum as they are a thoroughly analysed artefact within the discipline of archaeology. Generally, pots are a densely categorized artefact. Jon Adams (2001:292) states:

So often it is pots that are used to explore social interactions of the past. Yet in so many cultures, ships and boats have acquired such a prominent symbolic profile, it might be argued that they are even more potent carriers of meaning than the pots they so often transported. ...the factors that give watercraft their archaeological potential ...are only just beginning to [be] exploit[ed]...to the full.

One of these ‘factors’, as stated above, is other cargo and how the cargo was initially stored on the vessel. This can potentially reveal the sequence of cargo-loading thereby providing strong argument for shipping route debates. With the museum’s issue of lack of storage and the importance of managing collections for future research, this project is an attempt to correlate the many records deposited within a museum and test if the provenance of an artefact can be understood particularly when a researcher has not had the opportunity to excavate the material.

The question here is ‘how does the repository information become useful’? The following steps outline what a researcher entering a Museum with a background in archaeology can do to address questions relating to artefact provenance.

### Step 1: Make a table

Here is an example of table headings:

Site/ Date	Artefact #	Color Slides				B&W slides				Database: Filemaker WAMMARB01	DayBooks	Publications
		Contact #	Notes written on sleeve	Individual #	Notes within photo/pu sh-pin board	Contact #	Notes from BlueBooks (date, photographer )	Individ ual #	Notes within photo/p ush-pin board	Date: yyyyymmdd Keyword-site name Drawing/Film no. Plans Maps	Extract informatio n specific to your inquiry	

### Step 2: How to use it –cross correlation

By filling in these tables as you collect information, one can see where the gaps exist. This will help to frame questions of where else to look within the museum or if the study

may have to adjust its line of questioning due to unavailable information. These table headings can be separated into single tables or bullet points, as I have done in the appendices, and then brought together when a column has been completed.

The advantages of building such a table and keeping track of the information one gains while at a museum is a reciprocal aid for both the researcher and the museum staff: 1) it provides the researcher direction for one's line of enquiry; 2) allows for one to note holes in one's study-in-progress; 3) provides a record for the next archaeologist(s) to pick up from where one leaves off; 4) provides a comprehensive record for the museum on what they have available on specific past projects.

### **6.1 Case Study: Thailand**

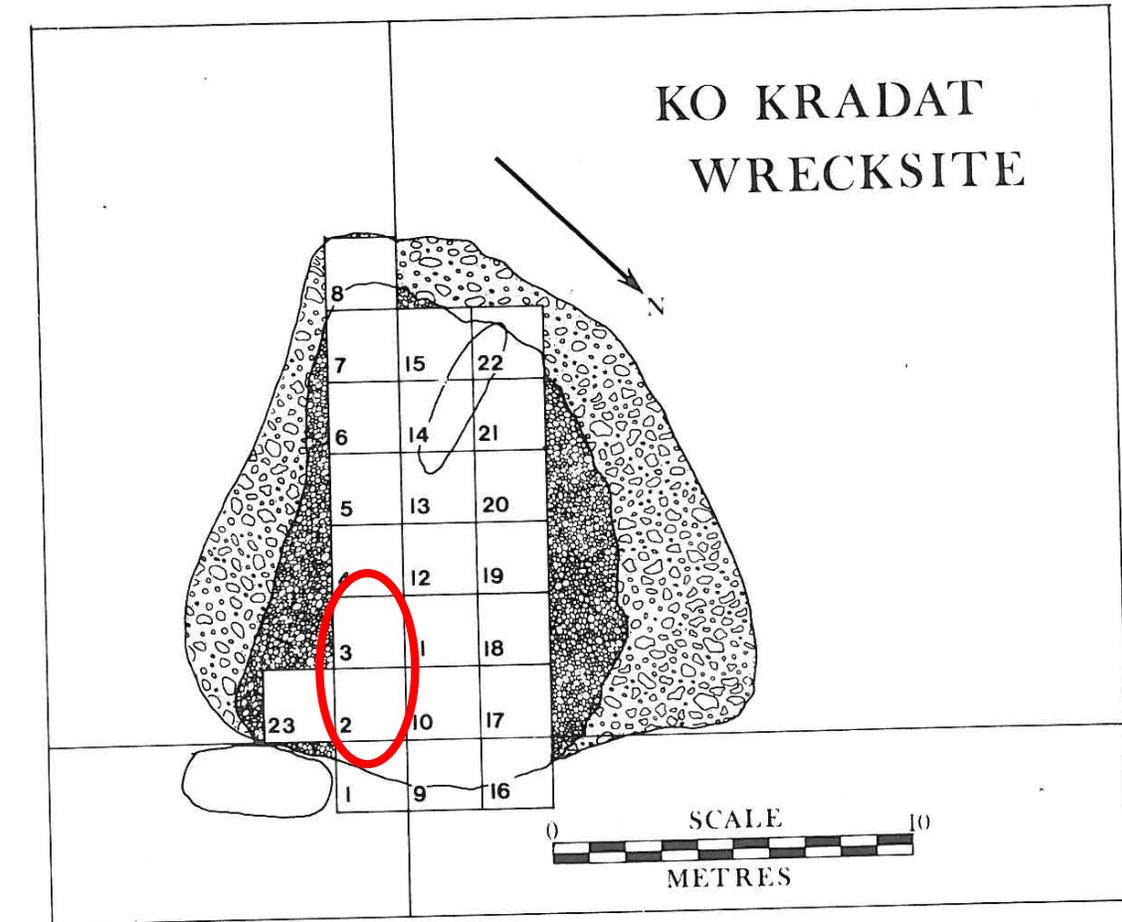
In the study of shipwreck cargos one may come along a similar situation to Figure 6 (below). This Section shows how by following the steps I have laid out in this report you can find information within the museum stores and potentially bring new information into the discussions of cargo analysis.

Make the Correlation Table as suggested in Step 1 of the above Section (See Appendix 23 and 23i). Where there are question marks (?) on the table it is because the photograph is not clear enough to be sure so no further correlations are possible.

In this case the Blue Books are good general reference but the originals had to be consulted because the negative identification numbers were not visible on the scanned Blue Book page, so I turned to the original negatives for MA855. When the slides were pulled from the shelf marked MA801-900 it was noted their date of production was 17/5/79 (this date is also available from the Database). There is no available Day Book for this date of photography. The Howitz 1979 (nor the 1977, for that matter) publication was not available at the time of this inquiry.

When the original slide numbers were consulted along with the drawing from publication (Green et al 1981:10), it was noted that slides representing the smaller wares of Sawankhalok manufacture had provenance in Grids 2 and 3. Interestingly, Grid Square 10 held 6 complete spotted jars and 10 fragments (reproduced in figure 7 below). Grid square 3 is to the south (left when facing Figure 6 below (Green et al 1981:3). Perhaps the spotted jarlet in Grid 3 was originally in Grid 10 or was a personal item of the sailors, therefore not actually cargo but a domestic item aboard the ship. The fact that the site laid, 'about 1 km north of the northern end of the island...[which is fringed by] a shallow reef, about 500 m wide and about 2-5 m deep, extending about 5 km, to Thi Tun Richelieu, in the north-east' (Green et al 1981:3) suggests that the jarlet would not have the advantage of gravity to move south and up a slope and the shallow, dynamic waters that the site was characterised by could have smashed it against the mound of boulders (Green et al 1981:4). If this is the case then perhaps the spotted jarlet from Grid 13 was also a domestic good for the same reason of natural laws. However, considering this argument then the spotted jarlet found in Grid 17 may have been from Grid 10 originally and just tumbled into Grid 17.

**Figure 6:** Plan of Ko Kradat Wrecksite with red circle highlighting grid squares 2 and 3.  
Adapted from Green et al 1981:3



GRIDSQUARE	23	19	18	17	16	15	14	13	12	11	10	9	Total
STONEWARE BODY	244	0	123	156	39	88	61	300	492	241	342	775	2095
UNGLAZED	20	0	10	11	11	2	8	5	32	12	31	31	118
BLACK E.WARE	10	0	3	12	0	3	20	40	56	0	49	0	193
BROWN GLAZE	0	0	0	4	0	0	3	24	19	0	12	18	80
E.WARE PLAIN	0	0	0	0	0	12	0	94	78	27	23	61	295
WHITE WARE	0	0	2	2	0	1	6	3	0	0	0	0	12
HANDLES MISC.	5	0	0	3	3	1	1	14	0	0	0	3	56
BASE PLAIN	6	0	0	0	0	0	0	11	3	3	2	0	25
FOOTRIM BASE	9	0	0	13	13	2	3	13	61	15	33	0	151
MANGOSTEEN	0	0	0	0	0	0	0	0	0	0	1	0	2
LOTUS BUD	12	0	0	2	0	2	1	5	2	5	2	1	27
PLAIN	0	0	0	0	0	0	0	1	4	2	3	6	16
JARRETS	8	0	0	6	3	0	1	8	13	5	23	6	73
JAR	0	0	1	0	0	0	0	0	0	0	0	0	3
BOWLS	0	0	0	0	0	0	0	0	0	0	0	0	5
GLAZED JAR	0	0	0	1	0	0	0	1	0	0	0	0	7
ETUC JAR	0	0	0	2	0	0	4	5	0	1	0	1	13
SPOTTED JAR	0	0	0	1	0	0	0	0	0	0	0	0	8
R. & M.	1	0	10	1	2	1	14	4	3	2	14	0	52
STANVED E.WARE	54	54	59	9	0	37	224	152	119	23	121	10	882
STOVE	12	0	3	0	0	0	2	0	1	1	0	0	19
E.WARE BOWLS	1	0	0	1	0	0	15	11	0	0	0	1	39
E.WARE JAR N H	4	0	0	5	0	6	25	31	0	0	39	0	100
E.WARE JAR HANDLES	6	0	6	3	0	1	6	23	0	0	10	4	59
GRINDSTONE	0	0	0	0	0	0	0	0	0	0	1	0	1
ELEPHANT	0	0	0	0	0	0	2	1	0	0	0	0	3
METAL			*			*	*						4
E.WARE LIDS	1	0	2	1	0	0	2	1	1	3	4	2	29

Figure 7: grids found in figure 7: sherds

GRIDSQUARE	23	19	18	17	16	15	14	13	12	11	10	9	Total
STONEWARE BODY	244	0	123	156	39	88	61	300	492	241	342	775	2095
UNGLAZED	20	0	10	11	11	2	8	5	32	12	31	31	118
BLACK E.WARE	10	0	3	12	0	3	20	40	56	0	49	0	193
BROWN GLAZE	0	0	0	4	0	0	3	24	19	0	12	18	80
E.WARE PLAIN	0	0	0	0	0	12	0	94	78	27	23	61	295
WHITE WARE	0	0	2	2	0	1	6	3	0	0	0	0	12
HANDLES MISC.	5	0	0	3	3	1	1	14	0	0	0	3	56
BASE PLAIN	6	0	0	0	0	0	0	11	3	3	2	0	25
FOOTRIM BASE	9	0	0	13	13	2	3	13	61	15	33	0	151
MANGOSTEEN	0	0	0	0	0	0	0	0	0	0	1	0	2
	12	0	0	2	0	2	1	2	5	2	1	0	27
	0	0	0	0	0	0	1	4	2	3	6	0	16
	8	0	0	6	3	0	1	8	13	5	23	6	73

**Figure 7:** In the above figure (reproduced Green et al 1981:7) we notice in the close-up and circled green area that Grid numbers 2 and 3 are not included, yet there are numerous finds from these grid squares. The Correlation Table (Appendix 23) helps to identify the missing information and make inferences of what cargo may have been shipped together and/or during site formation processes what cargo was shifted to the same area.

## 7 Conclusion

Museums with archaeology artefacts hold decades, in some cases centuries, of documented human exploits. The general mandate for museums is to house objects (that have largely been archaeologically excavated) for the public and future research. However, globally this is becoming difficult as financial strain restricts the space availability for incoming objects. If this is the case then perhaps we should turn our attentions to excavating the stores of museums. This document is a summation of the work I conducted while interning from March 7<sup>th</sup> to July 2<sup>nd</sup> 2012 with the Department of Maritime Archaeology at the Western Australia Museum's Shipwreck Galleries. To give an idea of the journal notes kept during this internship I have included see Appendix 24. Each Section of this document is a separate study of the resources stored within the Department. Annexes provide for the step-by-step guide on how to access/use the museum resources. The catalogue of the Abbott Collection in Appendix 25 consists of a sample of images never before shared outside this Museum, and prepared for a separate publication titled *Abbott Collection Catalogue* under the Australian Centre for Excellence in Maritime Archaeology series.

### 7.1 Putting this document into practice

During your research you find the following sentence and wish to follow it up with an in-depth investigation of the object and its record:

...porcellaneous material recovered is of the type produced in Southern China known as Swatow ware, and comprised a plate shard with sand encrustations around the foot and a jarlet with the characteristic blue underglaze, floral decoration, and small foot. This jarlet KSC1 3803 (unpub.) appears to resemble one recorded from Cebu in the Philippines (Robb, 1930, Fig.32b)

(Green and Harper 1987:7)

So reading this and having acquired the skills and knowledge of on how to find resources, specifically in the Department for Maritime Archaeology, I referred to my helpful Deconstructed Daybook Table and noted the only Daybook with artefact registration numbers and of KSC1 is from 1983 (Day Book #30) and some notes in Day Book #28 on the shipwreck's location and generally some ceramic association. When I opened the electronic file with the image 24949KSC185\_3803 on a computer with the appropriate software, the image opened to reveal a medicine jar with a scale and push-pin board including the information KSC1 85 3803. A detailed publication on these artefacts is forthcoming.

Generally, the following steps should lead you to the resource you seek:

**Step 1:** Go online. Look at the Museum website to see what is publicly accessible in terms of artefacts and records.

Artefact search is available at: <http://museum.wa.gov.au/research/databases>

The searchable online database specific to the Department for Maritime Archaeology: <http://www.museum.wa.gov.au/maritime-archaeology-db/artefacts>

Search for keywords. This is a broad search and generally set-up for the public so jargon is not helpful at this point.

Maritime Archaeology Records search is available at: <http://museum.wa.gov.au/research/departments/maritime-archaeology/maritime-archaeology-reports-001-100>

Step 2: Before entering the museum or when you first enter and are getting accustomed to the thoroughfare of the work place I highly recommend going through the publication: Green, J., Gainsford, M., Stanbury, M. (eds) 2004. *Department of Maritime Archaeology, Western Australian Maritime Museum: A compendium of projects, programmes and publications 1971-2003*. Australia National Centre of Excellence for Maritime Archaeology, Special Publication No. 9.<sup>16</sup> Fremantle: Western Australia Maritime Museum. This booklet provides some detail of each of the projects the Department for Maritime Archaeology participated in along with a very helpful *Chronological list of projects undertaken by the Department of Maritime Archaeology 1971-2003* from pages 67-81. It goes further to include an Alphabetical list of references to publications produced by members of staff and individuals associated with the Department of Maritime Archaeology from pages 83 to 132 and website listing on page 133.

Step 3: At the Museum you will get a password to access the server. On the server you can go into various folders to find what you need. The first place to look would probably be the G:\maritime\_file on 'dcamarfp01, under Maritime Archaeology, General Departmental Business, Publications Folder,

Then have a look at:

G:\Maritime Archaeology\General Departmental Business\Publications Folder\Departmental Publications\Electronic Dept Reports and the word document 2011List of All Dept Reports.

These two locations will give you a general sense of what the department has done on your object(s) in question.

Step 4: DAY BOOKS!!! Locate the books relevant to your study and record the information in a table.

Step 5: Once you have narrowed down your search you should have a look at the vast photography archive available in the Department for Maritime Archaeology. The instructions for this can be found in Appendix 11.

Step 6: If you are looking specifically for an object held in the stores then I suggest you speak with the Collections Manager (Section 2) and locate any digital files on the object (see Appendix 3).

The detail is intentional and the abundant number of references included are likened to the unearthing of diagnostic artefacts, such as coins, ceramics - and hopefully soon beads (Craig 2011). It is hoped that by attempting to provide a comprehensive bibliography one could note the breadth of this project across disciplines and the depth of the research already conducted. So much has already been done and desk-based assessments such as this can help to provide clarity on what questions have been addressed in the past with the equipment and knowledge available at the time of publication while shifting it towards the context of new information that has come to light since the original publications. For example, the Thai works were published from the late 1970s through to the mid 1990's but far more information has come to light, especially in the works of Roxanna Brown in the 21<sup>st</sup> century.

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<sup>16</sup> On tables acronym OIC = officer in charge

To appreciate this process I included a timeline (see Section 1.4.1.) on which the whole structure of this paper is shaped. I view this timeline as an upside-down stratigraphy (from earliest to most recent) in which each layer is an Event that is bracketed by the involvement of scholars who contributed major efforts towards the success of the overall project. Each Event is then teased out and detailed throughout this paper.

As archaeologists we work best with the story of an object that has a provenance. This helps to establish significance of the object. Shipwrecks provide a frozen moment in time and date the shift of objects over time and space. Shipwrecks and their cargo can be analysed by archaeologists and provide a critical analysis so that solid, evidence-based judgments can be made. This moves writing away from general sweeping comments such as “ceramics were shipped” towards “this excavation revealed that Khmer ceramics (with the specific details of manufacture) were shipped in the late 16<sup>th</sup> century by Southeast Asian style boats along the coasts of Thailand”. This then adds to the greater record from which one can place their debate on solid ground. Of course, new information is constantly coming to light in ongoing excavations. It is important to re-evaluate questions posed during the time of excavation and develop new questions about the material stored in museums. This creates a cyclical reliance on the artefacts recently excavated and the artefacts stored professionally in museums.

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## 9 APPENDICES

Appendix 1 – Western Australian Museum Organizational Chart

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Appendix 18 - BlueBooks – what's in them

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Appendix 20 – B&W table for index, individuals and contacts

Appendix 21 – Deconstructed DayBook

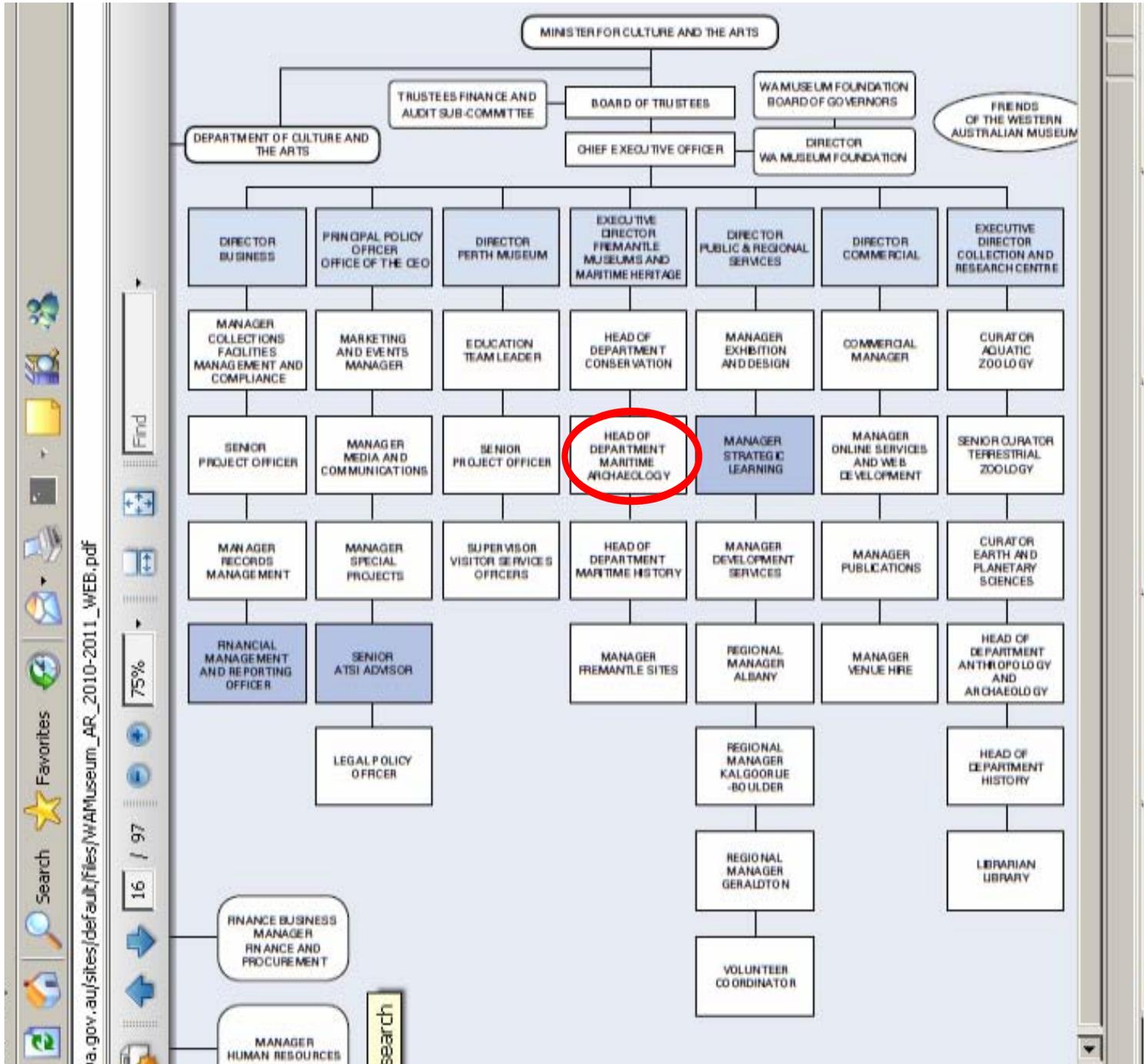
Appendix 22 – general AIMA report layout

Appendix 23 – Final Correlation Table; Appendix 23i – start of correlation table for other sites; Appendix 23ii – Building Correlation Table

Appendix 24 – journal notes halfway through

Appendix 25 – Abbott Catalogue

## 9.1 Appendix 1 – Western Australian Museum Organizational Chart



## **9.2 Appendix 2 - How to use the Library**

How to use the Library:

Open Mozilla

1) <http://intranet.dca.wa.gov.au>

Library Catalogue

2) [www.museum.wa.gov.au](http://www.museum.wa.gov.au)

Collections

Maritime Archaeology Publications

Library notes:

- PGDC = MA courses with UWA starting from 1981
- Blue books along the back wall = Day Books = Fieldnotes
- Reprints = random cool articles; especially check Jeremy Green Only for overseas projects articles

Kew St. = WAM = Archives Room = Hackett Hall Library

Here = Maritime, Main Library

South WA = Albany

Perth Museum or here = Education

If our copy is out then call the girls at the other end and request it to here.

## **9.3 Appendix 3 - Accessing Network Files**

To access Shipwreck Galleries' Department for Maritime Archaeology files on Network:

Click on COMPUTER

Click maritime\_file on 'dcamarfp01' (G:/)

Click Maritime Archaeology

Click General Departmental Business

Click Publications Folder

Click General Department Publications

Click Electronic Reports

Click on COMPUTER

Click Liaison

AIMA

1) AIMA publications Bulletins SPs only  
Special Publications

2) AIMA pdfs  
SP01 Pattaya  
SP04 Thailand

Click on COMPUTER

Click Network Drive

Maritime Archaeology Storage

1) Digital Images

Overseas

SE

2) MAD color slide scans only

B3 Drawer TMPC, T1 to 2540

Thailand Contacts (double red dots indicate these images have been scanned and are available as individual scans on the network)

## 9.4 Appendix 4 - Details of Partnership and Grants for Thai Ceramic Projects

The details of the *Thai Ceramics Archaeological Project* can largely be found in the Preface of Don Hein and Prachote Sangkhanukit's 1985 publication and Dick Richards's 1995 publication's Preface.

The Research Centre for Southeast Asian Ceramics was formed in 1984 as a joint initiative between Peter Burns, with the support of the University of Adelaide's Vice Chancellor Professor D.R. Stranks, and Dick Richards, with the support of the Board of the Art Gallery of South Australia (Hein and Sangkhanukit 1985).

In 1977 the Gallery published its first account of Thai and Khmer wares, most of which had come from the [K.J. and Margaretha] Ratnam collection [with a Grant from Crafts Board of the Australia Council]. By 1981 the collection had grown in size and quality [with the acquisition of the Michael Abbot Donation] to the extent that a programme of research was warranted. At that time little was known about the production sites and the organization of the ceramic industries, and it was through that with the aid of remote sensing, carbon dating, and other scientific techniques dates might be established for the genesis and demise of the various production centres. A five year projects called 'The Thai Ceramics Dating Project' was accordingly set up between the Gallery, the University of Adelaide, and the Thai Fine Arts Department to study the sites. Scientists and archaeologists from the Universities of Sydney, Armidale, and Adelaide joined the project, together with underwater archaeologists from the Western Australian Maritime Museum. Funding came from the Australian Research Grants Committee and the member institutions. Excavations were conducted in northern central Thailand and at several sunken ship sites in the Gulf of Thailand.

(Richards 1995: x)

### Research Members Thai Ceramics Archaeological Project

#### Thailand

Pisit Charoenwongsa, Head, Research Section, Archaeological Division, Department of Fine Arts,  
Prachote Sangkhanukit, Head Third Branch, Department of Fine Arts,  
Seehawat Naenna, Chief Archaeologist, Third Branch, Department of Fine Arts.

#### Australia

P.L. Burns, Research Centre for Southeast Asian Ceramics, University of Adelaide.  
D.L. Hein, Research Centre for Southeast Asian Ceramics.  
J.R. Richards, Senior Curator, Art Gallery of South Australia.  
Professor J. Prescott, Department of Physics, University of Adelaide.  
M. Barbetti, The N.W.G. Macintosh Centre for Quaternary Dating, University of Sydney  
J. Stanley, Geophysics Research Institute, University of New England.  
L. Day, Ceramics Consultant, Australian Mineral Development Laboratories, Adelaide.  
H. Polach, Radiocarbon Dating Laboratory, Research School of Pacific Studies, Australian National University.

(Richards 1995: appendix C)

In addition to the Australian Research Grants Scheme, we have been assisted by the State Government of South Australia, the University of Adelaide, the University of Adelaide Foundation, the Art Gallery of South Australia, CRA Ltd., NEC Information Systems (Australia) Pty. Ltd., Channel Seven, Adelaide and Peter Mayer and Associates.

(Burns 1987:32,33)

## **9.5 Appendix 5 - Collections Manager overview responsibilities**

Stage 1) Prior to fieldwork the Collections Manager and Conservators work together to consider what to bring for packaging of artefacts once they are excavated and for their safe transport back to the Shipwreck Galleries. Dr Rodrigues reserves numbers on the artefact register for artefacts recovered from the excavation, in case other artefacts come into the museum from other sites and the number is not used twice for different artefacts.

Stage 2) When out at a site and an artefact must be prepped to come into a Museum they are placed in a tub with freshwater. For smaller artefacts they are placed in baggies and a secondary container (i.e. ice cream container)-this is also so smaller objects are easier to manage, and not crushed by bigger objects in the big tubs or get forgotten about at the bottom of larger tubs. Both baggies (zip lock bags) and container filled separately with freshwater. At the end of a dig the team considers and decides what to keep and what not to keep. This was only for Bunbury. Other times, we recover what we want/need for identification or if it's a valuable item that divers might be tempted to loot. It's not good practice to raise items and then decide at the end what to discard or return to a site because the context is lost. Bunbury was unique in that the wrecks had been exposed in the 1960s and completely salvaged and disturbed so the context for loose objects were already lost and these are what we mostly returned to site for reburial.

Stage 3) When artefacts come to the Museum there are multiple staff to keep track of the object – this helps with later upkeep done through audits. Job number allocations (it's probably their form of registrations but it's not registrations given to object per se) occur in both the Conservation Department (this register is run by Lucy Burrow) and the Maritime Archaeology Department (this run by Jen Rodrigues).

## 9.6 Appendix 6 - Database Orientation

Open Filemaker:

File  
    Open remote  
        Window-click .172  
            MA Artefacts  
                Jenny Craig / wamm16

Search:

Under the word Browse

Click on symbol for search   
Wreck code prefix – put into field Registration Code prefix  
Enter

Miscellaneous notes explaining fields on Filemaker ARTEFACT PAGE:

Notes finding = years, who found it

Site Location = coordinates Lat & Long

Fieldnumber associated to fieldwork numbering – check ID notes in fieldnotes/daybooks

Location List = all entries just searched

Stocktake specimen = system no longer in use = Iconic/high value objects had to be audited with another authority jointly.

Display notes: history of movement of objects – on exhibition, conservation (all information of that is kept in the Department for Maritime Archaeology)

Location prefixes used

To export the artifact registration files into excel do the following:

File  
    Export Records  
        Type – excel  
            Continue  
                Specific Field for export  
                    Move  
                        Export  
                            Excel sheet appears, then open

Q. Does Fieldmaker keep activity history?

A. Keeps last change for all entry fields

## **9.7 Appendix 7 - Photography – how to do: from Photo to Database entry<sup>17</sup>**

### **Equipment**

Nikon D80 manual Camera  
MAC computer with ID M08013  
CaptureOne software  
Photoshop software  
Black velvet  
Tripod  
Scale  
Color scale  
Artefacts  
ID tags

**\*\*Darker image is better because whitewashed loses detail.\*\***

A regular day for Kate

1) come in and take a look at what needs to be done (artifacts needing processing)  
i.e.) all same size stuff photographed together because photo equipment all set-up for that.  
- have a think about placement of object for best visual.

### **WHAT TO CONSIDER - CERAMICS**

- View
  - if one side has detail then focus on that
  - if complete then include one main photo but with multiple detail photos with various angles (i.e. bottom, top, etc.)
  - NOTE: scale to match image sizes (this is within photoshop)

Photos are a reference on the Filemaker Database and stored on the department's server so people can just go see the object within the Museum.

When the object is not accessible (i.e. person in another country has requested to view the object) then more detailed photos are required/taken.

**INCLUDE IN PHOTO: Artefacts, Scale, object ID/reference no.**

NOTE: Each computer monitor has its own settings

- therefore make a note of this
- if doing a print then consider color accuracy, then use a color scale with the photo and when processing later have the scale with you so as to readjust the image to at-hand-scale.

### **SET-UP**

**SET-UP TAKES TIME!!!**

Think about the collection you have to photograph and set-up for each different type of artifact as it is needed, so similar sized artifacts should all be grouped together for a set-up.

Think about how the photos will be used. Discuss. Decide. Proceed with photography.

Set-up as required

Side-shots with tripod

Pale objects with darker background

Start with a black background see what you think and make a switch as required.

Use large piece of black cloth, so it hangs and no corners catch the light

- 1) set-up background

---

<sup>17</sup> WAMM volunteer Kate Robertson trained me on photography.

- 2) place object
- 3) place scale according to angle of camera using blue tack approximately 2/3rds along the object from its back or 1/3<sup>rd</sup> along the object from photographer
- 4) focus the camera lens on the scale
- 5) Lighting:
  - a. main light = top left
  - b. second light = opposite but further so that it is not as strong

**MAKE SURE ARTEFACT NO. IS IN THE PHOTO**

Aperture = smaller numbers gives less focus and vice versa.

Seconds = number with period on window at top of camera means the length of time an aperture is open.

### CAPTURE ONE SOFTWARE – STORING THE PHOTOS

#### DARKROOM

On the Desktop – open a new file and name it

open the software – *CaptureOne*

File

New

Location

Folder just created on desktop

Type

Tethered

Command+K takes photo

Or on the *topbar* click on the *camera* symbol and scroll down to *capture*

In our practice session we took 2h45min for 8 objects with a total of 30 photos and only 18 of them useable. In the last half hour we were able to complete 4 artefacts.

### PHOTOSHOP SOFTWARE – POST PHOTOGRAPHY

Open *Photoshop*

- 1) to straighten the scales in the photo
  - eyedropper symbol – hold – drop down menu – ruler tool
  - click on either end of the scale image in a straight line
  - click on the topbar *image*
  - image rotation
  - arbitrary
  - Rotate canvas = ok
- 2) to crop select sliding-ruler image in left-hand-panel
  - select area
  - enter

#### If mistakes are made

- an image is cropped too soon (i.e. before the ruler tool used) and black corners show at the bottom of the photo then you can undo.
- UNDO – this is by clicking on small window with HISTORY tab (usually upper-right-hand corner) go to step *crop* and click.
- Other crop option is to widen grey-surrounding- frame by clicking on box of hash-marks option in left-hand panel and select area to keep

- 3) Image Adjustment Levels = Command+L

- a. Fudge with it until sharp
- b. Happy then click File

Save As

Code it (i.e. ABB04170 – 001)

NOTE: it needs five digits, the – 00# is the amount of photos of the same object  
For our practice session we had top on = 002, top off = 003; combined = 001 □this is the photo to be inserted into Filemaker database

- 4) Click Finder
  - Maritime Image
    - Maritime Archaeology Storage
      - Artifacts by Reg No.

- 5) FILEMAKER
  - File
    - Open Recent
      - MA Artifact

- Click on Illustration Box
  - right click – Insert Picture
    - Maritime Archaeology Storage
      - Artefact by Reg No.
        - Folder (i.e. ABB abbot collection)
          - select image just edited
            - Open

NOTE: Make sure on *Insert Picture* window that box at lower left corner is ticked next to – Store only a reference to the file

**To open our current file of Photos:**

- Start-up Computer
  - Click Kate Robertson
    - Click CaptureOne on side toolbar
      - File (top tool bar)
        - Open Recent Session
          - Find our Abbot session click and it opens

**‘Mushing’ 2 photos together:**

- Either in CaptureOne or Server
- Normally CaptureOne
- Today Server
- On list highlight both photos (in this case ending with ID numbers -002, -003)
  - Double click
    - Both open in Photoshop (otherwise in Photoshop click File, open then select these 2)
      - Check top tabs
        - On left side tool bar, click top icon (move tool – arrow and cardinal points symbols)
          - Click image (hold down mouse)
            - Drag image (+003 onto +002) upwards tab of other image, then drag back down on top of image
              - Down on lower left in window note in LAYERS 2 images

**STEP 2:**

- Click Image (top bar)
  - Canvas size
    - Command+T (selects photos)
      - Hold Shift+click corner = holds proportions

**STEP 3:**

Save as

-001

Format

Jpeg

Save

When closing photo itself click DON'T SAVE

### How to extend scales in a photo

On left tool bar click on dashed-line square (Rectangular Marquee Tool)

Select area to extend (i.e. ruler scale)

Command+C (select Edit on top toolbar, select Copy)

Command+V (Select Edit, select paste)

To double check note lower right side window LAYER that scale stands alone

Left tool bar – click Move Tool (arrow and cardinal points)

To avoid left/right shifting use (up)  arrow key on keyboard

File, Save As

For small pots and/or plates name -001 on profile picky for the reference photo on database

### ILLUSTRATOR SOFTWARE - CATALOGUE

Catalogue – think about it, sketch it, previews

1) Print Document

2) Landscape

Put a grid on

View Tab

Show Grid

View

Snap Grid

To half the page/ or make two pages out of one

On the Left tab hover over Line Segment Tool

File

Document Setup

Look at the top measurements: Length x Width, then half the numbers

Click and drag or click on line and see distance

Layers Window

Click on new layer (icon looks like a page turning over)

Click box next to eye-ball and it locks – this means that this line will not move as you make further changes to the document

i.e. ABB medicine in filemaker

As I go I've kept a record on an excel spreadsheet so as not to double-up

To include image

File

Open

Click on image

Do drag onto tab

Click at top tab link (looks like a chain link between height and width)

Ever need to undo = then its command+Z

To Deselect – press Shift + click on area

## 9.8 Appendix 8 – Material Prefix Codes

Material Prefix Codes			Dimensions	
<b>0 UNKNOWN</b>	<b>3 NON-FERROUS</b>	<b>6 TIMBER</b>	AL	Average Length
	31 Bronze	61 Ship's timber	BD	Base Diameter
<b>1 STONE</b>	32 Copper/brass	62 Armament	BO	Bore Diameter
10 Building	33 Pewter	63 Cargo	DI	Diameter
11 Slate	34 Lead	64 Fittings	HD	Head Diameter
12 Coal	35 Silver	65 Tools	Hd	Head
13 Ballast stone	36 Gold	66 Bark/bamboo	HO	Hole Diameter
14 Sharpening/grinding	37 Tinfoil	67 Miscellaneous	Ht	Height
15 Flint		68 Dunnage	ID	Inner Diameter
16 Chalk	<b>4 MISCELLANEOUS</b>	69 Charcoal etc	Lg	Length
17 Unspecified	40 Human		ND	Neck Diameter
	41 Animal	<b>8 FERROUS</b>	OD	Outer Diameter
<b>2 CERAMICS</b>	42 Fruit	81 Armament	RD	Rim Diameter
21 Stoneware	43 Resin/wax/etc	82 Ship's fittings	SD	Shank Diameter
22 Earthenware	44 Glass	83 Tools	Sh	Shank
23 Majolica	45 Pitch/tar/oil	84 Cargo	Th	Thickness
24 Delft	46 Rope/leather/etc	85 Ship's structure	Wd	Width
25 Bricks	47 Textile	86 Concretions	Wt	Weight
26 Tiles/pipes	48 Marine	87 Replicas	cm	centimetre
27 Clay pipes	49 General	88 Misc/unid	mm	millimetre
28 Patterned E-ware			m	metre
29 Porcelain	<b>5 COINS</b>		in	inch
	51 Silver		ft	foot
	52 Copper		g	gram
	53 Gold		kg	kilogram
			cwt	hundredweight
			lb	pound
			max	maximum
			min	minimum

## 9.9 Appendix 9 - File MA 1/81

Included in the MA 1/81 file is a pamphlet from the Department of Home Affairs on “Taxation Incentives for Gifts to Public Museums, Libraries and Art Galleries”. Two valuation documents are to be included, as everything is valued by two independent valuers so that people who donate get a tax credit according to the value of their donation.

The listing of the Abbott collection wares was prepared by Dick Richards. Three lists are included. One from each valuer and a third including both lists of value plus an average valuation. A listing of each object is included in the file, titled ‘List of Items Donated’. With the following headings: Item (this is followed by a list of numbers from 1 to 142 – these numbers match to original numbers painted on the wares, this was checked with Maddy [Madeline] McAllister on 23 April 2012 by bringing this document to the wares and comparing 5 wares – bowls, medicine jars, covered jarlet); Description (short 1 to 4 lines noting characteristic features of type, colour, shape, motifs, etc.); Valuations (broken down to 3 subsections = 1<sup>st</sup>, 2<sup>nd</sup>, Av. [average]). *Note from no. 133: Collection of 10 pieces similar to those found in Dutch ships wrecked off the west coast of Australia but collected in South East Asia of Ching and Ming period:-*

In the files held in cabinets between Sue and Myra’s offices under filename MA 1/81 Ceramic Donation there are some papers on the ‘**Valuation certificate**’ which include:

- 1) Donor’s name and address: Michael Lewis Abbott, etc.;
- 2) ‘Description of Items and, where applicable, title and author’s name: Collection of Chinese, Vietnamese and Thai ceramics recovered from burial sites and shipwrecks in Indonesia and Thailand – see attached list’;
- 5) Evidence for Authenticity: The material is typical of wares offered by antique dealers in Singapore and Jakarta. It compares with material in gallery collections in Adelaide and Melbourne;
- 6) C.N. Spinks The Ceramics of Thailand, Bangkok, 1965; R.M. Brown The Ceramics of South East Asia. Kuala Lumpur, 1977; R.J. Richards Thai Ceramics, Adelaide 1977; W.B. Honey The Ceramics of China, London 1945;
- 7) Prices paid for comparable material: See current auction and dealer prices in south East Asia, Australia and London;
- 8) Valuation and date of Valuation: A\$17, 265; 30 March 1981; and
- 9) Name and Address of Valuer: E.B. Roberts, etc.

Many letters between Jeremy Green, Michael Abbot, Dick Richards, Thomas Wardle (Chairman, WA Museum Board of Trustees), J.L. Bannister (Director, WA Museum), P.M. Summerfield (Curator, WA Museum, Tax incentive letters).

Current list of wares as noted on the Museum’s Filemaker database. Titled: Maritime Archaeology Department Database: Complete Artefact List as of the: Wednesday 7 November 2001. 144 objects in total on this list, yet there were 142 objects on all 3 valuation lists. The extra objects may possibly be some bases and lids originally counted as 1 object instead of 2 parts of the same object.

### **Other paperwork**

This was another subsection of the ARC Thai Project. Amdel Chemistry Laboratory conducted scientific analyses on firing temperatures for kiln to ceramics. These were on ceramics from the *Batavia* and *Vergulde Draeck*. In 1990 AMDEL at the University of Sydney conducted inductively coupled plasma atomic emission spectrometry (ICP). A list of samples is included. However, I am not clear as to whether this was supplied by the Museum by the WA Museum: there is a full report on the analyses. or by the University. The calibration results are noted to be in Stuiver et al. [SUA-2298, SUA-2594 & DAEP-774].

These would be the laboratory numbers allocated to the samples.

Attached paperwork titled Stoneware Sampling Report involved doctoral candidate Michael Maccheroni of University of New England. Who took minute (a few grams only) of stoneware jar samples to test PIXE/PIGME Elemental Analysis (proton induced Xray and gamma ray emission),

the outcome of which was to establish effective concentrations of about 30 elements thus allowing meaningful comparisons of fabrics. Variety of jar fabrics would be indicative of differing sources and patterns of jar use through time should become apparent. What will ultimately be sought is an insight into trade within the area during the period of the beginning of the Modern Era. (Letter of proposed study by Michael Maccheroni 14.11.2001)

These correspondences stop in 2001 with no information on the results of the analyses.

## **9.10 Appendix 10 - Colour Slide Index SAMPLE**

MaritimeArchaeologyStorage

MAD Color Slide ONLY

Side Drawer Index (word document)

SAMPLE

### **DRAWER B3**

#### **THAILAND**

**TMPC/1-20**

MAPS, PLANS, CHARTS

**T1-238**

KO KRADAT, 1979 EXPEDITION

**T241-538**

KO KRADAT, 1980 EXPEDITION

**T581-640**

SA ART GALLERY - SLIDE COPIES

**T642-685**

DON HEIN COPIES

**T686-**

PATTAYA EXPEDITION, 1982

**T1381-1458**

KO SI CHANG 1 INVESTIGATION, 1982

**T1461-1880**

NOEL JONES COPIES

**T1881-1980?**

KO SI CHANG 1 EXPEDITION, 1983

**T1981-2160**

KO SI CHANG 1 CERAMICS, 1983

**T2161-2167**

KO SI CHANG 1 EXPEDITION, 1985

**T2171-2178**

KO SI CHANG 2 INVESTIGATION, 1985

KO SI CHANG 3 INVESTIGATION, 1985

## 9.11 Appendix 11 - EAST DARKROOM Orientation

**BOOKS** (located in room) = Volume #, title, serial number (i.e. Vol 25; JNG, Dutch, SEASIA, MA 2401-2500/10.1983-92.1985)

On server: MaritimeArchaeologyStorage; MAD B&W neg scans ONLY; folder MA2001.3000; nothing between 2381\_38.jpg and 2408)

Note: In file MA1001.2000, folder 1407 Thailand Pattaya – 6 photos total = 5 uw and 1 of the work boat above water).

In the books are photos that include artefact numbers as they were recorded while excavating, perhaps there are some DAY BOOKS that correspond to this?

### **CABINETS**

INDEX located on server in

MaritimeArchaeologyStorage

MAD Color Scans ONLY

Slide Drawer Indexes.doc

B3 etc. corresponds to files on server

Get on Server...

- 1) call up the Slide Drawer Indexes.doc for...
  - a. the list of where things are in the cabinets in the room.
  - b. This corresponds to the list of files within the server, under MAD Color Slides scans ONLY (in my case B3; and only later 6 weeks later, to note that there is also B4)
- 2) go to PDF file WAMuseum\_DMA\_ColorSlideIndex.pdf – but this is VERY outdated(1996) and no longer corresponds to anything that I was interested in.
- 3) If interested in understanding where the B&W scans are of the blue books lining the shelf overhead then go to MAD B&W neg scans ONLY
  - a. Find document = WAMuseum\_DMA\_BWPhotoIndex.pdf:
  - b. This may also be printed and found in a Red Binding located on a flat surface somewhere in the room
  - c. The following pages correspond to my interests in the Thai ceramics slides p. 5,10,11,19esp. 24, 25, ~27
  - d. This should help to locate specific B&W photos of interest in the BLUE BOOKS\*

\*looking in the blue books helped to identify the loose, unnamed colour scans of T\_204-237 to file in Ko Kradat; the books also contain site location maps and site plans

**COLOR SLIDES**

*Computer files/ server*

1) MaritimeArchaeologyStorage

MAD Color Slide ONLY

PDF document – file number WAMuseum\_DMA\_ColorSlideIndex.pdf = Color Slide

Index (note in top right hand corner 75% 29.8.96)

Tables shaped thusly (no key to explain acronyms):

	A	B	C	D	E	F	G	H	I
1	Drawer	Title	Description	Supp.	File	CS1	CS2	CS3	CS4
582	#B2	Thailand	CERAMICS-SIMILAR TO GT, BAT, ZW						

Only Page 9 has Thai stuff listed

2) MaritimeArchaeologyStorage

MAD Color Slide ONLY

B4.Drawer.T2541

T3001-

4 very helpful photos displaying how the drawings and general analysis of pottery was conducted, action shots if you will.

Thailand Contacts2

3 contacts of KSCII ceramics from 3501 – 3520, 3521-3540, 3541-3543 (I've not digitised scans of these slides)

Noted 'new' wrecks = Koh Khram, Prachurb Khiri –Khan, Ko Lin, perhaps one other

**B&W PHOTOS**

*Computer files/ server*

Server

MaritimeArchaeologyStorage

MAD B&W neg scans ONLY

Note which contact number you want and open the file with that number in range

INDEX (no key to explain acronyms) = WAMuseum\_DMA\_BWPhotoIndex.pdf located inside MAD B&W neg scans ONLY, located on MaritimeArchaeologyStorage server

Tables looks thusly:

Type	Description	Additional Info.	Add.Code	Film Number
ART	Ko Kradat	CERAMIC		830, 855, 856, 985, 1101-9, 1110-5

Document – file number meta\_informatir-slides.doc = Color slides Batavia timbers, with table thus

CD	Slide Nr	Date	Remarks
1	C2-BT-R-563	XII-94	'BATAVIA' REPLICA: Robert Parthesius Lecture @ W.A. Maritime Museum

## 9.12 Appendix 10 - Scanning - How to do

### Equipment

MAC computer with ID sticker ZM00236

Nikon Super Coolscan 4000 scanner with ID sticker WAM Asset MO2229

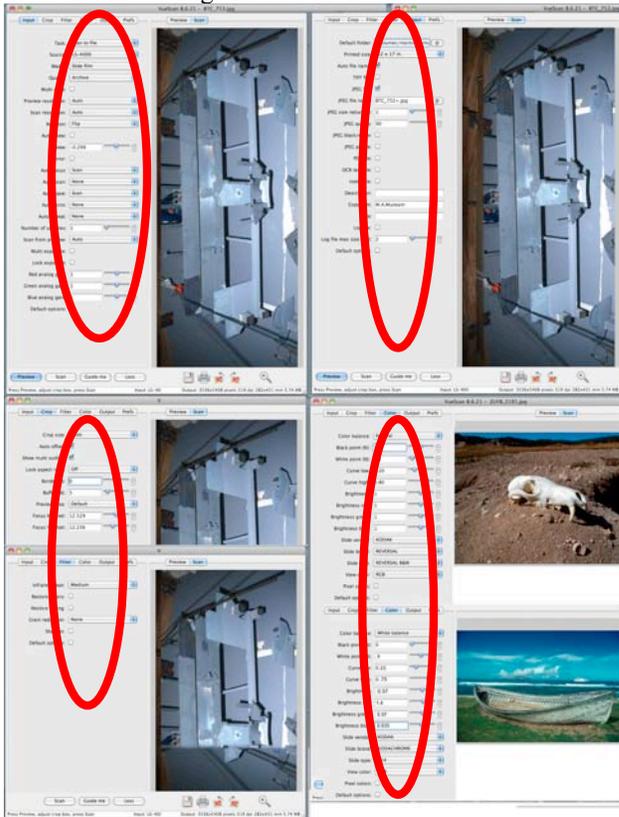
VueScan software

Photoshop software

Slides in see-through small pocket sleeve

Lit surface to view slides for processing

When you START UP Double check SETTINGS photographer has chosen. This is helpfully titled *ScanningSettings* on the desktop of Scanning MAC ZM00236. Below is an example of the file to help you identify the correct one. Look at the information in the fields that are circled in red below and make sure these are the settings in Vue Scan.



Select file where scans are to go – double check output tab in Photoshop matches this  
1 whole contact (20 slides) takes approximately 30 minutes to scan each slide separately.

If it says kodachrome on plastic frame around photo then make sure this is on in the VueScan setting –  
COLOR – Slidebrand – kodachrome; otherwise ektachrome (these are the types of slide the image is on and  
the software does slightly different things with it)

When scanning Command+M brings up the curve window so that technician can lower or pick up  
RedGreenBlue (RGB).

NOTE: First day of scanning 4 contacts took 1hr 30mins; towards end it takes approximately 20 minutes  
for a whole contact (20 slides), while if only a few chosen on the contact then less time required – this was  
the case as the work progressed because I started recognizing what were the same photo but with different

lighting and had spoken with photography specialists (Pat, Kate) about what choice is better – darker better for contrast.

So you have set-up and now need to scan.

Using the lit-up bench, the light switch is on the wall facing you and under the BlueBooks shelf. Look at the slides and choose the slide you plan to scan. Either scan one at a time by inserting the slide into the scanning machine (Nikon Super Coolscan 4000 scanner with ID sticker WAM Asset MO2229) or use the multi-stacker. With the inserted slide you should see a window in the VueScan software on which a button titled Scan will start the process. Make sure in your output tab you have done the following step...

Save Scans:

On the Desktop create a file with Keywords to the file you are scanning (i.e. Thai Scans).

Desktop

    Create New Folder

        Thai Scans

Locate this new file and open it along side the scanning page

You can note the success of the scan as it is saved to the file when it appears on the file record.

At the end of the work day take a few minutes to open the Server file as it relates to the contact file you have been scanning. For example, I pulled contacts from Drawer B3 so I went into this digital file. This ensures all the work you have done is saved to the Server incase anything should happen to the computer in the interim.

MaritimeArchaeologyStorage

    MAD Color Slide ONLY

        B3.Drawer.T\_#

            Highlighted scanned images in Desktop folder ThaiScans and with the mouse shifted them over to the Server file B3, to an appropriate sub-file.

## 9.13 Appendix 13 - B&W Database – How to use

### Filemaker Pro

Enter Access codes

Open Remote File

Hosts (192.168.51.172)

Available files (MA B&W negs or MA color Slides or MA video Lists)

Looks like MA Black&WhiteNegs(WAMMARDB01)

Film No.	Date yyyymmdd	Geographical location or site of image source	Keyword description of subject matter	Image category Keywords
----------	------------------	---	---	----------------------------

Using the Bridge software (only on MAC computers and not PCs in the office)

192.168.51.25 or .32

MaritimeArchaeologyStorage

MADB&WNegScansONLY

The following all correlate to each other (same for color)

Contact Print Books (100 films)

MA Black&White Negs (WAMM MAD B&W neg scans ONLY)

On MA B&W negs note which book – i.e. #8 – on filemaker this is listed in the far left field, under category Film no.)

Open file 1-1000

1-100

08 contact

If searching (always do both of the following)

Using magnifying-glass symbol

1) Geographical Location or site of image source

Thailand (to see how many in total check far left key under Found: 24)

2) Keyword description of subject matter

Thailand (Found: 197)

Note: the potential for overlap exists – to check this look at category Geographical and see if anything typed in about that neg., if so then its already been included in the previous search).

Example) Film #: 3561

MAD B&W scan ONLY

3000-4000

3500 – double click

3561.jpg

### 9.14 Appendix 14 - colour contact slides and notes

KSC I Contact #s	Notes written on sleeve
T1961-1980	Feb 85, BR
1941-1960	Feb 85, BR
1921-1940	Feb 85, BR
1901-1920	1907 17.1.85 1915 BR 1918-1920 Feb 85, BR
1881-1900	Feb 85, BR
1781-1800	JNG, June 83
1761-1780	Except 1780 JNG, June 83 22.6.83, JNG
1741-1760	Except 1760 JNG, June 83 22.6.83, JNG
1721-1740	22.6.83, JNG
1701-1720	BR 1701-1704 20.6.83 1706-1719 18.6.83
1691-1700	1681-1690 17.6.83, BR 1691-1695 June 83, JNG
1621-1640	1621-1634 2.6.83, BR 1635-1639 20.6.83
1321-1335 (1326, 1327)	G6
921-940 – 960	BR Special note 947 D.5 <sup>-10</sup> +3-16y

Pattaya Contact #s	Notes written on sleeve
1441-1458	Jan 82, N.J.
1301-1320	1982 1301-1315 BR 1316-1320 Dusty Rhodes
1281-1300	BR 82
1261-1280	BR
1241-1260	BR 82
961-1100	UW 1982, BR
901-920	BR, 1982
881-900	BR, 1982
641	C SAW

Ko Kradat Contact #s	Notes written on sleeve
341-360	u/w on site, JNG, April 1980
321-340	Pottery, BR, April 1980
301-320	Pottery, BR, April 1980
281-300	

	281-283 284-300	Pottery, JNG, April 1980 Pottery, BR, April 1980
261-280	261-271 272-280	Pottery, BR, April 1980 Pottery, JNG, April 1980
241-260		Pottery, BR, April 1980

I think these are all Ko Kradat looking at the sequence

221-238		Thailand
201-220	Special note 202	Thailand No. 19
121-140	Special note 134, 135, 138	Thailand No. 17, 16, 14
101-120		Thailand

Land Contact #s	Notes written on sleeve
644-645	D.H Thailand, Northern
646	D.H Thailand, Sawankhalok
647-653	D.H Thailand, Sukothai
654-660	D.H Thailand
627,628	Pottery, Adelaide

## **9.15 Appendix 15 – Scanned Server Files - Where files I created are stored**

MaritimeArchaeologyStorage

MAD Color Slide ONLY

B4.Drawer.T2541

T3001-

4 very helpful photos displaying how the drawings and general analysis of pottery was conducted, action shots if you will.

Thailand Contacts2

3 contacts of KSCII ceramics from 3501 – 3520, 3521-3540, 3541-3543 (I've not digitised scans of these slides)

Noted 'new' wrecks = Koh Khram, Prachurb Khiri –Khan, Ko Lin, perhaps one other

B3.Drawer.TMPC, T1-2540 (this is where I focused and specifically on the ceramics. While scanning I would use a red marker to put 2 dots on either end of the white plastic frame of a slide to show future users it was already scanned)

I created files:

Maps (T\_124, 200, 1094, 1098),

TPottery Underwater (files...

Ko Kradat Site underwater (T\_101-139, 341-359, etc.)

Pattaya site underwater (T\_968, 971, 980, 982, 992, 1055, 1061, 1065, 1315, 1318, 1320)

KoSiChang2 site underwater (T\_1077-1079)

KoSiChang1 underwater (T\_1082-1084, 1090)

TPottery Above Water

KoKradat assemblage on the beach (T\_201-203)

Sukothai kiln survey (T\_644-660)

Pottery with scales

KoKradat

KoSiChang1

KoSiChang2

KoSiChang3

Pattaya

Pottery without scales

KoSiChang1/siteG

### 9.16 Appendix – Ko Kradat individual colour slide table

Short description	Slide number (T_#) (V:\MaritimeArchaeologyStorage\MAD Colour slides scans ONLY\B3.Drawer.TMPC,T1to 2540\Pottery with scales\Ko Kradat)	Fieldwork Artefact number
Tops and bottoms of mangosteen jarlets, medicine jars, jarlets, etc.	204-237, 249	
	250, 263,	UNEX KK 80, Grid 08, 58
	251, 251a, 252	UNEX KK 80, 101
	253, 254	UNEX KK 80, Grid 08, 64
	255, 256	UNEX KK 80, Grid 80
	257, 258, 259, 260, 261, 262	UNEX KK 80, 62
	264	UNEX KK 80, Grid 08, 57
	265, 266, 267, 268	UNEX KK 80, 41
	269, 270	UNEX KK 80, 110
	271	UNEX KK 80, Grid 08, 53
	272, 273, 275	UNEX KK 80, 77
	274, 276, 277, 278	UNEX KK 80, 75
	279, 280, 282, 283	UNEX KK 80, 74 and 75
	284	UNEX KK 80, Grid 04, 99
	285, 336	UNEX KK 80, Grid 04, 97 and 98
	286, 287	UNEX KK 80, Grid 04, 101
	288, 289	UNEX KK 80, Grid 08, 68
	290, 291	UNEX KK 80, Grid 08, 63
	292, 293	UNEX KK 80, Grid 06
	294,	
	295, 296	UNEX KK 80, Grid 04, 103 LEGS
Double photo Aesthetic photo, no scale, stoppers, jugs, jarlets	297, 298	UNEX KK 80, Grid 08
	299	UNEX KK 80, Grid 06
	302 (no carte 300, 301)	UNEX KK 80, Grid 6
	303	UNEX KK 80 Grid 6
	304, 305	UNEX KK 80, Grid 10
	306, 307	UNEX KK 80, Grid 12
	308, 309	UNEX KK 80, 12
	310	UNEX KK 80, Grid 06
	311, 321	UNEX KK 80, 112
Medicine jars	312, 314	
	313	UNEX KK 80, Grid 12
Pots, no handles, spread along ground (new?)	315	
	316, 317	Silpakorn University W.A. Museum, Koh Kradat Thailand, 1980
	322	UNEX KK 80, 12, 120
	323	UNEX KK 80, Grid 10
	324	UNEX KK 80, Grid 06
	325, 326	UNEX KK 80, Grid 12
	327	UNEX KK 80, Grid 04, 100
	328	UNEX KK 80, Grid 04, 99

	329, 330	UNEX KK 80, Grid 08, 70
	331, 332	UNEX KK 80, Grid 12, 109
	333	UNEX KK 80, 12, 115
	334	UNEX KK 80, 77 and 79?
	336	UNEX KK80, Grid 04, 97 and 98
	337	UNEX KK 80, 47
Mangosteen fruit	338, 339	
	340	UNEX KK 80, Grid 08, 59

### 9.17 Appendix 17 – KSC1 table individual colour slides

Short description	Slide number	Push-pin Board Information
	920	41
	924	32 and 33
	925	32 and 33
	926	39 and something not numbered
	927	39
	928	39
	929	39 and something not numbered
	930	39
	931	42, 43, 44
Whole large pot	932	
lids	933	
shards	936	
shards	937	
	938	1
Bowl with Signature base	943	
	946	1
	947	1
	1621	03 83
	1622	01 83
	1624	02 83
metal	1625	
metal	1626	
metal	1627	
metal	1628	
metal	1629	
	1631	17 83
	1632	17 83
	1633	18 83
	1634	18 83
	1635	
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## 9.18 Appendix 18 - BlueBooks – what's in them

Rosie has already organized and separated individual photos from MA2487 onwards. Specially KL 1988; KSCII 1985, 1987; KSCI 1985, 1983; Pattaya only has drawing individual slides

<b>Blue Book Number (helpful notes on spine)</b>	<b>contact number</b>	<b>Written on B&amp;W photos</b>	<b>On opposite page</b> Swanghalok = Sawankhalok
	MA 2484	BR JNG 8 Feb 85	KSC 1 UW
9 (1979)	855	MA 855 with artifact numbers on photos UNEX79 KK G2, 3	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok
	856	MA 856 No artifact numbers or ID of any sort, scales with ceramic included.	Kho Kradat, Thailand, copy, artefacts, swaghalok
10	975c	UW stereo tests	1 <sup>st</sup> feb 1980 P.E.B.
10 (1979)	937	Ko Kram 3 Oct 79	17-20B 21-24B {608, 2105, 545} ceramic, stoneware, swanghalok
	938	Kho Kradat 4 Oct 1979 No artifact numbers or scales. Mostly underwater.	M {2-10, 11-12} Koh Kradat copy uw 1979; koh kram, copy stoneware, jar, handle, detail, Bangkok
12 (1980-81, SE Asia)	1101	KK, Artifacts All numbered from 1-21 (i.e. UNEX KK80)	BLANK
	1102	KK, Artifacts All numbered from 47-50; includes Grid number 82-84, 74-79	
	1103	KK, Artifacts All numbered from 36-39, 43, 28-34	
	1104	KK, Artifacts All numbered from 21-35	
	1105	KK, Artifacts All numbered from 35-37, 40-41, 44-46, 51, 52	
	1106	KK, Grids Again! Artifacts All numbered from 85-89, 95, 74-83	
	1107	KK, Artifacts All numbered from 84-93, 53-57	
	1107b	KK, Artifacts All numbered from 53-57	
	1108	KK, Artifacts All numbered from 57-64, 70, 73	
	1109	KK, Artifacts All numbered from 65, 67, 69, 70-73, 68-sherds	
	1110	KK, Artifacts All numbered from 97-101, 109-110	
	1111	KK, Artifacts All numbered from 77-75, 74	
	1112	KK, Artifacts All numbered from 74-75, 115, 120	
	1113	KK, Artifacts All numbered from 120, 01	
	1114	Ko Lin Photos Artifacts numbered 22	
12 (NOTE: This is the Abbot Collection)	1118 - 1194	Ceramic donation JNG 1 <sup>st</sup> June 1981	
15 (1982, SE Asia)	1415	Abbot Collection photos, no words but I recognize them	
	1416	Abbot Collection photos, no words but I recognize	

		them	
	1417	Abbot Collection photos, no words but I recognize them	
	1461	PATTAYA 82, 426, 129, 419, 360, 110, 368, 343	
	1462	PATTAYA 82, 232, 170, 154, 277, 17, 168, 191, 267, 34, 268	
	1463	PATTAYA 82, 343, 423, 327, 14, 114, 380	
	1464	PATTAYA 82, 10, 27, 26, 4, 2, 20, 16, 14	
	1465	PATTAYA 82, 594, 360, 522, 507, 593, 591, 574, 494; KSCII 15	

### 9.19 Appendix 19 – B&W colour and individuals – how to find

On the WAMuseum\_DMA\_ColorSlideIndex.pdf – A hardcopy of this is printed out and available in a Red Plastic booklet on a flat surface in the East Dark room.

Acronyms in East Dark Room (aka Scan Room)

Photo Index for B&W Photos

WRE = wreck

MIS = miscellaneous

ART= artefact

MOD= model

PER= person

DOC= document

PLA= place

SHI= shipwreck

REP= report

PHOT= photo/photographer

HBO= harbour

BUI=

DIS=

BOA= boat

pulled from Index then went to B&W Contact files on server (see appendix 11)

Scans of each **B&W neg** are located in Server

Server – G:

Maritime Archaeology

SITE RELATED

Overseas

Asia-Pacific Folder

Thailand Folder

Rosie 2000 Pub

Rosie\_renumber

Files for 5 primary sites

NOTE: Files for negs were stored by ID# and not neg# in Rosie's file.

To SEARCH on Server

MACs Go onto Bridge program Find Contains – enter#	PCs Find File – reg no.
---	----------------------------

- 1) On a negative, alongside the ceramic the Push Pin boards entail the Site, Year – crosscheck with registration book

### 9.20 Appendix 20 – B&W table for index, contacts and individuals

Listed on the Index WAMuseum_DMA_ColorSlideIndex.pdf		Contact #					
Description	Quick reference page no.	Individuals <sup>18</sup>	Additional Info.	In MAD B&W neg scans ONLY	With ID placard	Noted while looking through server contacts	Diagnostic
ko kratat	p.5		ceramic	830, 855, 856, 985, 938. 1101-9, 1110-5, Note: 1114, 1115 <sup>19</sup>	855, 1101-09, 1110b, 1111, ¼ 1112,		830, 856, 985 <sup>20</sup> , 938 <sup>21</sup>
Ko si chang	p. 5		ceramics	1980-1, 1983-, 1996, 2401, 2487-, 2500, 2905-6, 3848-58 <sup>22</sup> , 4039-40 <sup>23</sup> ,	1469, 1980, 1981, 1983, 1984, 1985, 1986, 1987, 2487, 2488, 2489, ½ 2490, 2500, 2905,	1469 - 72	1996, 2401, 2906
Ko Si Chang 2	p. 5		ceramics	2901-2, 4042-7, 3677	2901-2,	1473, 1475, 1476	4042-7 <sup>24</sup> , 3677
Ko Si Chang 3	p. 5		ceramics	320-22 <sup>25</sup> , 3515 <sup>26</sup>	3201-3208, 3210, some 3211 and 3212, 3213-16, -3219-3220, ¼ 3222		3218, 3221, majority 3222
Pattaya	p. 25		ceramics	1459, 1460-8, 1475, 1912, 240, 2762-3, 2765-6.	½ 1459, ¼ 1460, ¾ 1461, 1462, ½ 1463, ½ 1464, 1465-68, 1912,		2401
Thailand	p.11	2758 – site location 2774 – chart site location 3119 – site location 3120 – some pots!!!	Maps and charts	1588-9, 1595, 1598, 2707, 2758, 2774, 3119, 3678 ( – should be 3578)	1593 has grid but no title for which site it is of. 1595-8 has shipwreck plan but no site grid for artifacts. 3578 identifies the site plans to KSC3.		

<sup>18</sup> Apparently there is a whole file of these but I did not record their access properly and have enquired

<sup>19</sup> Ko Lin

<sup>20</sup> Aesthetics, piles

<sup>21</sup> Ibid of KoKhran

<sup>22</sup> 3648-58 Ko Lin, ceramics

<sup>23</sup> 4039-40 ko lin, drawings of ceramics

<sup>24</sup> KSC2, drawing

<sup>25</sup> KSC3, timber 3209, metal 3217



	coupla rice pots, a kendi, some lids...eggs inside a pot; <b>10/3</b> Tom was excited finding little bronze lime pots with Nik; <b>13/3</b> every damn [pot not sherd] needs a dymo...we completed the whole tank of sherds	<b>10/3</b> last minute survey work and photography																																																									
31-1986-KSCIII	<p>p.22 Volume of Containers</p> <table border="1"> <thead> <tr> <th colspan="2">large jars</th> <th colspan="2">medium jars</th> <th colspan="2">small jars</th> <th colspan="2">rice pots</th> </tr> <tr> <th>#</th> <th>Vol. in litres (less than)</th> </tr> </thead> <tbody> <tr> <td>26</td> <td>70</td> <td>415</td> <td>13</td> <td>430</td> <td>5</td> <td>443</td> <td>1.5</td> </tr> <tr> <td>418</td> <td>54</td> <td>413</td> <td>14</td> <td>140</td> <td>7.5</td> <td>442</td> <td>1.9</td> </tr> <tr> <td>408</td> <td>53</td> <td>58</td> <td>13</td> <td>123</td> <td>6</td> <td>162</td> <td>1.5</td> </tr> <tr> <td>6</td> <td>55</td> <td></td> <td></td> <td>421</td> <td>5</td> <td>109</td> <td>3</td> </tr> <tr> <td>429</td> <td>50</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>p.51 <b>18/1</b> small jar found on E side of concretion [EW16, EW18] together with large pot base with material inside broken base. Sample brought up; <b>19/1</b> jar small high basin and number of whole pots to the E of concretion, re-surveyed jar neck; p.53 tester computer notes on pottery location; p.56 ibid, but looks different; p.65-66 ibid but more detail with pots 1 to 31 legible then watermark; p.68-82 proper artefact registrar from 1 to 484 in a table format and the following headings: Tag no., surveyed, coordinates (Northing and Easting), date raised, date registered, description, sighted [Koh] Kam Yai</p>	large jars		medium jars		small jars		rice pots		#	Vol. in litres (less than)	26	70	415	13	430	5	443	1.5	418	54	413	14	140	7.5	442	1.9	408	53	58	13	123	6	162	1.5	6	55			421	5	109	3	429	50														
large jars		medium jars		small jars		rice pots																																																					
#	Vol. in litres (less than)	#	Vol. in litres (less than)	#	Vol. in litres (less than)	#	Vol. in litres (less than)																																																				
26	70	415	13	430	5	443	1.5																																																				
418	54	413	14	140	7.5	442	1.9																																																				
408	53	58	13	123	6	162	1.5																																																				
6	55			421	5	109	3																																																				
429	50																																																										
33- 1985-KSCIII	p.2-7 table with the headings: reg. no., no. of items., date, location, material, description, decoration, body, col body 1, 2, color glaze, base, mid body, rim, height, think, wt, Photos (B&W, color), drawing; p.8-9 Muncell Charting table with the headings: object, glaze, inner body, outer body																																																										
30- 1983-KSCI	This diary was written from 22nd May to June 7th 1983. It lists helpful references. Perhaps these are notes on a publication draft. Porcelain Typology with sketches and description notes from p.50-58, 62, 64, 66, 68-70, 72, 74, 76, 78, 80. These include artefacts #300, 179, 17, 388, 326, 325-298, 180, 299, 390, 389, 385, 614, 82/7, 463, 550, 613, 327?, 684, 253, 297, 630, 461, 380, 591?. The end pages are some thought sketches of how to move forward with the site grid. It is not clear if these ceramic pieces are from the site itself but I assume they are, and not from a local Museum.																																																										
28- 1982-Pattaya	Really helpful orientation notes: p.25 “Vit house at Nong Chub Tao, it’s the HQ of the regional archaeology section of the FAD [Fine Arts Dept]. They have been excavating Rang Kwien(?) This is the southern wreck site otherwise known as the Coin Wreck. The Pattaya wreck is known as the pottery wreck. The southern site has earthenware paddle stamped rice pots, with concave lids. Some Martalasn(?) tyre pots, a bowl, a lug-handled pot, a KKhra(?). Coms, two gold bracelets with semi-precious stones a blue and white cevron (crave) in central medallion and a square mark on base. Carved wooden panels, ship structure, with plan of site. Cash date from Tang to Ming (not clear where in Ming). Some bails upstairs. Site is arc 18m. Base is at Bang Sore that is about 10k south of Ban Amphoe.”																																																										

	<p>p.40 mention of KSCI and notes on WanLi(1573-1620) with general location details of KSCI and KSCII. KSCI noted to have p.75 “Main pottery area 5m away. Site consist of some timbers, numerous Kendi, fragments with ribbed sides, looped handle jars, blue and white earthenware bowls, stoves. ??? sized ribbed storage jars.”</p> <p>KSCII p.77 “Very large (+1m) storage jars. Material included celadon and black underglaze Swankhalok.”</p> <p>The rest is about the views, dive logs and general fieldwork discussion.</p>		
134-1982-Pattaya	<p>Pages 1-71 all pottery detail! Pages 46-71 about KSCI (starts #601) but continues the numbering system from Pattaya (pages 1-45). Headings include Reg. no.; Date (I assume this is either when it was surfaced form the site or entered into the record); ceramic description, body, glaze, location, comments (this section includes note – c. photo).#1 to #31 found loose; #32 to #53from 15/1/82 location/position Area 1-1metre baseline. #54 to #74 Area 2 – 2 metre baseline; #103 location noted near keelson; #119 – wood, piece of timber from keelson- location noted as loose; #121 lead/6 lead weights pyramid shaped/location N/S 2 metres and E/W 2mE [so suddenly the location/position notes have changed!]; #143 reddish jar frag. Located 2x2mE; #166 East of site; #167 1-2metres ??? a stem; #169 1-2 metre mark; #170 3m (next to box); #180 2mx1mE; #181-183 2mE of zero; #184-220 next to 7<sup>th</sup> transit south; #185 3mX1m<sup>2</sup>; #222-226 4m to the East; #267-304 Right of cone[?] Box; #305-337 at 5m mark; #338-374 at 6m forward of bulk head; #375-376 at first futtock of bulkhead; #378 E side of site, bulkhead 1; #379 loose on east side, inner planking; #380 West side Strake 7, with a bit of 3<sup>rd</sup> planking; #383 at plank 283 between bulkheads 3 &amp; 4; #399-418 between bulkheads 4 &amp; 5; #419- 597 between bulkheads 5&amp;6 PATTAYA STOP; the KSCI [=Site G; in Green and Harper 1983, AIMA SP No.1; however in the same publication Site S does not have any notes in the Daybook.] notes are largely Art Historian type notes with description, measurements, drawing, and some photos but no notes about location; p.68-71 Rayong (Touis Collection) no provenience</p>	Photo Nick #378	<p>When the location numbers are grouped they are largely according to date. So I would assume this means the dives took place in separate and focused areas of the site and the location of numbered artefacts reflect that. (i.e. 22/1/82 #305-337 located at 5m mark)</p>
27- 1980- Ko Kradat	<p>General notes about the excavation which could be helpful to understanding how to use the notes in the remainder of the book, p.59-83. From page 99 its about the ceramics, registration on page 101, development of the thoughts on how to present the data about the ceramic provenience from page 102-121. pages 122-135 are general discussion notes, seemingly draft publication.</p>	<p>Pages 137 to 149 are the photographic details. A table with the following headings: Reg. No. Grid square, Description, Photo, Slide, Drawn; there is even an index on which page to turn to for specific type-wares details!!!</p>	

## **9.22 Appendix 22 - General Layout for AIMA bulletin site reports**

### **Site Report notes**

1 Cover

2 Title page with report title including name of site, type of work, dates + authors and their associations

3 where written, date, ISBN

4 contents

5 list of figures

6 introduction with plan of SEA showing location of site includes how and when folks from WAMM got involved with what association therefore initial network that led to survey

Site discovery date, based on what?

If more than 1 excavation – why

Reason for choice of spelling

7 chart with island at centre

8 wrecksite – lat/long

length, height, vegetation, general description of population

Plan with grid, scale, orientation, shore description, seabed substrate description, tide, approximate location of site (km, m), depth of water

9 If previous report to refer to (i.e. 1977 survey) then noted with details of finds/artefacts

10 Excavations include description of methods (i.e. baseline) with measurements, layout of grid, dive equipment, man hours

11 Finds- All materials recorded

“ the 1979 registration book unfortunately not available for this present analysis” (p.5, ko kradat report)

Distribution = types

What recording done on site

Ko Kradat = complete therefore report book and photos provide complete record

Drawing and photos with short description

12 Conclusions (ko kradat, p.42)

“Whilst little is known of the ballasting arrangements of oriental sailing ships it must be appreciated that one cannot sail a load carrying ship empty. All sailing vessels required something to counter-balance the force of the wind on the sails, which in turn is transferred to the mast and tends to want to turn the ship over. The use of ballast or a heavy cargo counteracts this force. Thus, if a ship unloads a certain weight of cargo, it has to take on approximately the same quantity to maintain its sailing characteristics.”

### 9.23 Appendix 23 – final correlation table

Site/Date	Artefact #	Color Slides				B&W slides				Database: Filemaker WAMMARB01	DayBooks	Publications		
		Contact #	Notes written on sleeve	Individual #	Notes within photo / board, scale	Contact #	Notes from BlueBooks	Individual #	Notes within photo/ board, scale			Date: yyyyymmdd Keyword-site name Drawing/Film no. Plans Maps	Extract information specific to your inquiry	General
Ko Kradat / 1979	N/A	T_221-238	Thailand No. 19	?T_225?	Scale 3cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	13/13 A	UNEX 79 KK G2; scale 2.25cm	Photos MA855 taken 17 May 1979	N/A	?	?	?
Ko Kradat / 1979	64	T_201-220, T_221-238	Thailand No. 19	T_217, T_227	Scale 4 cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	12/12 A 21/21 A	UNEX 79 KK G2; scale 4cm	Photos MA855 taken 17 May 1979	N/A	Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	Howitz, P. 1979. Figures 17, 18c, 19; Green et al 1981 Type 2A, p.18 <sup>29</sup>	Figure 3 (Green et al 1981: 3)
Ko Kradat / 1979	60-63	T_201-220	Thailand No. 19	T_206	Scale 4.5cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	11/11 A 22/22 A	UNEX 79 KK G2; scale 4.5cm	Photos MA855 taken 17 May 1979	N/A	Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	Howitz, P. 1979. Figures 17, 18c, 19; Green et al 1981 Type 2, p.18 <sup>30</sup>	Figure 3 (Green et al 1981: 3)
Ko Kradat / 1979	N/A	T_201-220	Thailand No. 19	T_214	Scale 3.5cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	10/10 A	UNEX 79 KK G2; scale 3.5cm	Photos MA855 taken 17 May 1979	N/A	Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	Green et al 1981 Type 1, p.20 <sup>31</sup>	Figure 3 (Green et al 1981: 3)
Ko	105	T_201-	Thailand	T_209	Scale	MA855	Kho Kradat,	7/7A	UNEX 79	Photos MA855	N/A	Howitz, P. 1979.	Howitz, P.	Figure 3 (Green

<sup>29</sup> Sawankhalok Cover Box Lid: Lotus Bud

<sup>30</sup> Sawankhalok Cover Box Lid: Lotus Bud

<sup>31</sup> Sawankhalok Black Underglaze Cover Box Bases

Kradat / 1979		220	No. 19		3cm		artifacts, individual, group, Thailand, Swanghalok	9/9A 8/8A 23/23 A	KK G2; scale 3cm	taken 17 May 1979		Green, J., Harper, R., Prishanchittarra, S. 1981	1979. Figures; Green et al 1981 Type 1B, p.16 <sup>32</sup>	et al 1981: 3)
Ko Kradat / 1979	142-146	T_221-238	Thailand No. 19	T_222	Scale 11.5 cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	4/4A 20/20 A	UNEX 79 KK G2; Scale 11.5 cm	Photos MA855 taken 17 May 1979	N/A	Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	Howitz, P. 1979. Figures 22, 23, 25; Green at al 1981 Type 4A, p.11 <sup>33</sup>	Figure 3 (Green et al 1981: 3)
Ko Kradat / 1979	128-133	T_201-220	Thailand No. 19	T_220	Scale 6cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	6/6A	UNEX 79 KK G2; scale 6cm	Photos MA855 taken 17 May 1979	N/A	Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	Howitz, P. 1979. Figures 15, 16; Green at al 1981 Type 2, p.10 <sup>34</sup>	Figure 3 (Green et al 1981: 3)
Ko Kradat / 1979	134-138	T_221-238	Thailand No. 19	T_233	Scale 11cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	2/2A3/ 3A5/5 A	UNEX 79 KK G2; scale 11cm	Photos MA855 taken 17 May 1979	N/A	Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	Howitz 1979, Figures 20, 21; Green et al Type 3 p.10 <sup>35</sup>	Figure 3 (Green et al 1981: 3)
Ko Kradat / 1979	N/A	T_221-238	Thailand No. 19	T_223	Scale 4cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	17/17 A15/1 5A	UNEX 79 KK G3; scale 4cm	Photos MA855 taken 17 May 1979	N/A	Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	?	Figure 3 (Green et al 1981: 3)
Ko Kradat / 1979	127	T_221-238	Thailand No. 19	T_231	Scale 4cm	MA855	Kho Kradat, artifacts, individual, group, Thailand, Swanghalok	16/16 A 14/14 A	UNEX 79 KK G3; scale 4cm	Photos MA855 taken 17 May 1979	N/A	Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	Howitz 1979, Figures 126; Green et al Type 1C p.9 <sup>36</sup>	Figure 3 (Green et al 1981: 3)

<sup>32</sup> Sawankhalok Cover Box Lid : Mangosteen

<sup>33</sup> Sawankhalok pear-shaped black underglaze decorated bottle

<sup>34</sup> Sawankhalok brown gourd-shaped bottle with small shoulder handles

<sup>35</sup> Sawankhalok Brown eared bottle

<sup>36</sup> Sawankhalok brown spotted jarlet

### 9.24 Appendix 23i – Start of Correlation Table for other sites

Date Where/What	Associated Photos in East Dark Room (for details of which numbered artefacts see Appendices 18, 14, 16)	Daybook Number... <sup>37</sup> For details see Appendix 21	Publications
	Colour Slides CONTACTS	B&W negs CONTACTS	
1979.First Thailand Project. Ko Kradat expedition and SPAFA training programme.		, 856, 937, 938	Green, J. Thailand – Ko Kradat 1979. 26. <sup>38</sup> Green, J.N. 1980 Green, J.N., Harper, R. and Prishanchittara, S., 1980 Green, J.N., 1981a Green, J.N., 1981b Green, J., Harper, R., Prishanchittarra, S. 1981 <sup>39</sup> Green, J. N. and Harper, R., 1982 Green, J.N., (ed.), 1983a Green, J.N., (ed.), 1983b
1980.Second Thailand project. Ko Kradat expedition Thailand.	360-241; 238-201; 140-101	1101-1113	See ko kradat 1979 for references. Appendix 23

<sup>37</sup> Held in Library of Department for Maritime Archaeology, Western Australian Museum

<sup>38</sup> Course attendance, fieldwork notes, no artifact registration. This mentions how this course was developed form a previous course by SPAFA in 1976. Pensak Howitz instigates Ko Kradat and publishes on it in 1977. page 97 provide brief description of the ceramics. Film Catalogue

No	Date	Subject	notes
1	9.1.79	Underwater wrecksite	FP4 Rond??/6mm
2	10.1.79	Test object photography	Pan F Rond??/4m
3	10.1.79	Test film for photograph	Panatx Rond/6m
p.159	11.1.79 Aa	Cover, measurement, 27mm diameter, 1	Decorated and broken

<sup>39</sup> This publication notes an important event! P.45- The work done on the ceramics (Chinese blue-and-white porcelain and porcellaneous-stoneware) of which 4 had inscriptions (the most exciting one of which read ‘Made in the Jia Jing reign of the Great Ming Dynasty). This places the piece at 1522-1566. Other supporting evidence also places this wreck at the mid to end of the 16<sup>th</sup> century. This important fact proposes the terminal date for Sawankhalok pottery to move back a century.

1981.Abbott Collection acquisition Shipwreck Galleries		1118-1194, 1415-1417		See notes by Myra.
1982.Third Thailand project. Pattaya wreck site excavation.	Pattaya 1458-1441; 1320-1241; 1100-961; 920-881; ?641?	1461-1468; KSCI 1470-1476; KSCII 1473, 1475, 1476 Rayong 1474 Rang Kwien 1477-82	Green, J. Thailand 1982 (Pattaya); <b>28</b> . <sup>40</sup>  No name. 1982 – Registration – Thailand; <b>134</b> <sup>41</sup>	Green and Harper, R. 1982 Green, J., Harper, R. 1983a. Green, J., Harper, R. 1983b. Green, J.N. and Intakosai, V., 1983
1983.Fourth Thailand project. First Ko Si Chang I excavation.	1800-1691; 1640-1621; 1326, 1327; 960-921	1957 Then see Rosie's file (appendix 19)	Green, J. Thailand – Ko Si Chang Dive Log. <b>29</b> . <sup>42</sup>  Green, J. Thailand – Ko Si Chang 1983 Notes; <b>30</b> . <sup>43</sup>  Green, J. Thailand – Ko Si Chang Dive Log (1983); <b>29</b> . <sup>44</sup>  Green, J. Thailand 1983 Day Book and Diary; <b>32</b> . <sup>45</sup>	Green, J. 1983. Green, J.N., 1985. Green, J.N. 1986a. Green, J.N. 1986b. Green, J.N. and Harper, R. 1983a. Green, J.N. and Harper, R. 1983b. Green, J., Harper, R., Intakosi, V. 1987. Richards, B. 1984. Richards, B., 1985. Richards, B. 1986.

<sup>40</sup> Views p. 83. Generally the AIMA publication more comprehensive Green and Harper 1983.

<sup>41</sup> ALL POTTERY!!! Perhaps this is Rosie's Day Book?

<sup>42</sup> Nothing about artifacts, all dives and water environment.

<sup>43</sup> General reekie of the place. Drawings and notes on ceramic glaze images. P.104 note looks as though Black and White photos taken. P. 20 date 21 May 1983. p.22 note – Excavation of Ceramic finds from ancient kilns in china, 16.9.81-14.10.8?; pages 50-80 artefact drawings and id numbers

<sup>44</sup> Diver logs mostly. Some helpful schematics of site to boat p. 131, 132, 145.

<sup>45</sup> General conditions. Schematic p.165.

1984.Fifth Thailand Project. Second Ko Si Chang I excavation.		Check Rosie's file (see appendix 19)		Richards, B., 1984. + See Ko Si Chang I 1983 for references.
1985.Sixth Thailand project. Third Ko Si Chang I excavation, ARGS Program Grant; Southeast Asia.	1980-1881	Check Rosie's file (see appendix 19)	Green, J. Thailand – Ko Si Chang 3 Artefact Register 1985; <b>33</b> . <sup>46</sup>	See Ko Si Chang I 1983 for references.
1986.Seventh Thailand project. Ko Si Chang III.		Check Rosie's file (see appendix 19)	Green, J. Thailand – Ko Si Chang 1986 Day Book; <b>31</b> . <sup>47</sup>  Green, J. Thailand – Ko Si Chang 3 1986 Day Book. <b>34</b> . <sup>48</sup>  Green, J. Thailand Conservation Day Book 1986. <b>35</b> . <sup>49</sup>	Green, J.N., (ed.), 1983b. + see references for Ko Si Chang I 1983.
1987.Eighth Thailand Project.			Green, J. 1987. Thailand 1987 Dive Log. <b>37</b> . <sup>50</sup>	No references.

<sup>46</sup> 24 artefacts; pages 9.

<sup>47</sup> Site artifact registration starts page 68-82 – 484 artefacts total. Grid p.32 – very confusing! This is the Ko Si Chang 3 wreck.

<sup>48</sup> P. 10 – Date 21/1 = 21<sup>st</sup> January photos taken of pottery, etc.

<sup>49</sup> Mentions some specific artifact numbers of KSC I 1802-wood, 3671-cane, 3414-wood, 2208-ivory.

Survey expedition.			Green, J. 1987. Thailand 1987 Day Book. <b>36</b> . <sup>51</sup>	
1988.Ninth Thailand project. Survey.			Green, J. Thailand 1988 artefacts. <b>38</b> . <sup>52</sup>	No references.
1991.Tenth Thailand project. Training programme, Rayong site.				No references

<sup>50</sup> General comments about pottery collection. No measurements. No plan.

<sup>51</sup> Surveys over Pattaya – p.23, Ko Si Chang II revisit p.16 & dig p.18, KSC IV – search but not found, prachuapkhiri khan.

<sup>52</sup> All about timbers from KSC II, publication plan, would be best and clearest to turn to for wrecksite planning.

**9.25 Appendix 23ii – building correlation table (Discussion; Case Study: Thailand, Ko Kradat)**

Date Where/What	Artefact #	Associated Photos in East Dark Room				Daybook		Publications		
		Colour Slides CONT ACTS	Colour Slides Individuals	B&W CONTACTS	negs	No. <sup>53</sup>	Relevant notes		Relevant Notes	plan
1979.First Thailand Project. Ko Kradat		T_201-220; T_221-238	T_205-233	MA855	UNEX 79 KK G3	26. <sup>54</sup>			Howitz, P. 1979. Figures Type 1B Artefact number 105 page 16 goes with B&W slide 7/7A	Figure 3 (Green et al 1981: 3) see below
1979.First Thailand Project. Ko Kradat expedition and SPAFA training programme.	60-64, 127-138,	T_201-220; T_221-238	T_205-233	MA855	UNEX 79 KK G2	26		Howitz, P. 1979. Green, J., Harper, R., Prishanchittarra, S. 1981	Howitz, P. 1979. Figures 15, 16, artefact numbers 128-133; Figures 20, 21, artefact numbers 134-138; Figures 126 artefact numbers 127; Figures 17, 18c, 19 with artefact numbers 60-63; Green, et al 1981: 3 (see below), artefact number 64 with a drawing of it on page 18 Type 2A; figure 22,23, and 25, artefact No. 142 to 146	Figure 3 (Green et al 1981: 3) see below

<sup>53</sup> Held in Library of Department for Maritime Archaeology, Western Australian Museum

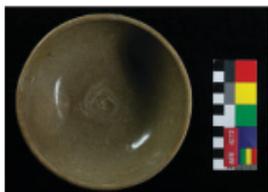
<sup>54</sup> Course attendance, fieldwork notes, no artifact registration. This mentions how this course was developed from a previous course by SPAFA in 1976. Pensak Howitz instigates Ko Kradat and publishes on it in 1977. page 97 provide brief description of the ceramics. Film Catalogue

No	Date	Subject	notes
1	9.1.79	Underwater wrecksite	FP4 Rond??/6mm
2	10.1.79	Test object photography	Pan F Rond??/4m
3	10.1.79	Test film for photograph	Panatx Rond/6m
p.159	11.1.79 Aa	Cover, measurement, 27mm diameter, 1	Decorated and broken

## 9.26 Appendix 24 – Example of draft page from Abbott Collection Catalogue

### BOWL

ABB 4272



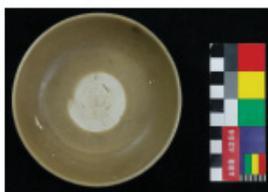
**Dimensions**  
Ht: 7.3 cm; Rim Di: 14.6 cm; Foot Di: 5.8 cm; Wt: 400 g

### Chinese - Ming



**Description**  
Celadon bowl, Ming period, decorated in grey/green celadon, vertical ribs on outside of bowl, this type closely related to Sawankhalok, repaired.

ABB 4256



**Dimensions**  
Ht: 3.7 cm; Rim Di: 12 cm; Foot Di: 5.4 cm; Wt: 210 g



**Description**  
Ming saucer, decorated in grey/green celadon glaze.

ABB 4295

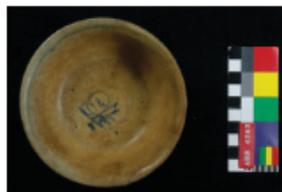


**Dimensions**  
Ht: 5.9 cm; Rim Di: 16.2 cm; Foot Di: 6.4 cm; Wt: 420 g



**Description**  
Chinese Ming celadon bowl, repaired.

ABB 4288



**Dimensions**  
Ht: 6 cm; Rim Di: 12.5 cm; Foot Di: 4.9 cm; Wt: 220 g



**Description**  
Chinese stoneware bowl, underglaze blue and white interior and decorated on exterior with green celadon glaze, Ming period.

ABB 4290



**Dimensions**  
Ht: 6.1 cm; Rim Di: 12.3 cm; Foot Di: 4.9 cm; Wt: 170 g



**Description**  
Bowl, blue and white underglaze decoration, traces of green/red/yellow enamel, Chinese, Ming period.

ABB 4233



**Dimensions**  
Ht: 6.5 cm; Rim Di: 15.8 cm; Foot Di: 5.9 cm; Wt: 270 g



**Description**  
Bowl, underglaze blue and white decoration of mounted horsemen on the outside and meditating scholar on the inside. Chinese, Ming period.

