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War graves, munition dumps and pleasure grounds: A post-colonial perspective of Chuuk Lagoon's submerged World War II sites



Thesis submitted by

William Jeffery

December 2007

for the degree of Doctor of Philosophy
School of Arts, Education and Social Sciences
James Cook University

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I declare that this thesis is my own work and has not been submitted in any form for another degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

W.F. Jeffery

Date

Statement on the contribution of others

During some of my fieldwork, I was under a contract to the FSM National Historic Preservation Office to work as a maritime archaeologist in Chuuk, the setting for this study. I received a salary during these periods (approximately five months) and financial support in the implementation of some field surveys. This extended to funds from Historic Preservation Funds in partnership with the U.S. National Park Service, U.S. Department of the Interior for additional field surveys that were primarily for the use of the Chuuk Historic Preservation Office, but which benefited my site surveys.

Additional funding was gained from the Earthwatch Institute to provide for further site surveys in collaboration with other specialists and the Chuuk government, as detailed in the acknowledgements.

Dr Shelley Greer supervised this study during its final stages and made a number of editorial comments. All other support is detailed in the acknowledgements.

Declaration on Ethics

The research presented and reported in this thesis was conducted within the guidelines for research ethics outlined in the *National Statement on Ethics Conduct in Research Involving Human* (1999), the *Joint NHMRC/AVCC Statement and Guidelines on Research Practice* (1997), the *James Cook University Policy on Experimentation Ethics. Standard Practices and Guidelines* (2001), and the *James Cook University Statement and Guidelines on Research Practice* (2001). The proposed research methodology received clearance from the James Cook University Experimentation Ethics Review Committee (approval number H1440).

W.F. Jeffery

Date

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Inspiration for this research has come from working in maritime archaeology for a number of years, and collaborating with numerous colleagues, researchers and communities in Australia and elsewhere. When in Chuuk, I saw a need to apply submerged WWII site research to contemporary Chuukese and my inspiration came from living, working and getting to know a number of people. I have also derived inspiration from my father who passed away in 2002, and I am sad he could not have been here upon completion of this work. He fought in the World War II, and was in Darwin when it was bombed by the Japanese. He lost his only sibling during the war, a brother named Bill, and I can always remember his reluctance in talking about the war, until his last few years. My mother is still with me and I thank her for getting me this far, and in her tolerance when I abandoned my job and home to take on this work. In this same token, I want to say thanks to my children, Jessica, Peter and Rachel, who I am sure think I am crazy for going back to study. Finally I want to acknowledge the support and encouragement of my wife, Vivienne Moran, who as a maritime archaeologist, has provided some lively discussion, and assisted in field work. This topic has consumed many of my thoughts, much of my time and our office at home, and I thank her for her support during this time.

Abstract

The focus of this thesis is the meanings that can be gained from examining the conflicts in the values associated with the submerged World War II sites located in Chuuk Lagoon, Federated States of Micronesia. The submerged WWII sites are representative of the war phase in the history of Chuuk and part of Chuuk's colonial period. They are valued and used by the three relevant groups, Chuukese, Japanese and Americans in different ways that are indicative of a range of social, cultural, economic and political connections. I have investigated these connections using a post-processual approach to underwater cultural heritage management to appreciate contemporary societies and issues, and site management.

Understanding Chuukese contemporary societies and issues includes understanding Chuukese local history. After 1,800 years of regional seclusion, Chuukese experienced a number of foreign contacts and colonial rulers. As a result, they experienced a number of changes and adapted and adopted practices for their own benefit. During World War II, Chuuk was utilised as a major Japanese base in the same manner as Pearl Harbor was to the United States of America (U.S.), and Chuukese were dominated by a large Japanese military presence. War and suffering came to Chuuk on 17 February 1944 with the commencement of the U.S. bombing of the base and the associated cruelty of some Japanese military personnel. The base was bypassed by U.S. amphibious forces during their 1944 conquests in the western Pacific and not only left to 'wither on the vine', but used in U.S. bomber tests, British aircraft carrier tests, and discussed as a target for U.S. atomic bomb tests.

Chuuk was dominated and Japanized pre-war, which had a number of consequences, including many marriages between Japanese men and Chuukese women. Although there was an initial hatred of the Japanese post-war, many Chuukese today acknowledge their Japanese ancestry and many older Chuukese lament the 'good' pre-war Japanese days, as compared to the poor current services and supplies that came after the war.

With the loss of over 50 million lives, World War II was a watershed in 'world' history and the bombing of the Japanese base in the Chuuk lagoon was an important historic event in relation to this. But for the Chuukese, this is not 'world' history, but *their* 'local' history. This research focuses on gaining an understanding of Chuukese local history, including the values associated with the war and the submerged WWII sites. The need to have a local perspective and to be socially inclusive

(rather than objectively scientific) is inherent in this approach. It has revealed that submerged WWII site management takes its cue from Cultural Resource Management (CRM) approaches that privilege archaeological values of sites that are then used to prescribe site management. The Chuuk Lagoon submerged World War II sites are currently managed and promoted according to the dominant Euro-American values, that is, as significant sites associated with the U.S. conquering the Japanese during World War II, and as a focus for international tourism. Chuukese values have not been acknowledged, and while Japanese values are acknowledged, they are ignored. These values can be complex, they can conflict, perhaps especially in relation to those of the Euro-American approach. However, I argue that the lack of Chuukese and Japanese values in this approach is indicative of neo-colonialism, and the continued contested nature of World War II and its remembrances. This investigation has also revealed that conflicts between Chuukese and Japanese values are related to past colonialism and the impacts of World War II.

The value of this research is in demonstrating how a more socially inclusive, less scientific approach in investigating submerged WWII sites, will facilitate better understanding of the range of meanings inherent in this important submerged landscape. It is anticipated that it could result in a more valuable and viable methodology for site management. This research also demonstrates that submerged WWII sites can have value, meaning and relevance for contemporary societies, in addition to their role as repositories of the past. This study has also revealed apparent paradoxes in war sites that both commemorate war and are used as peace memorials, which in association with the conflicts shown in Chuuk Lagoon illustrate the need for less domination and more inclusion.

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Abbreviations

ARIUA	Asian Research Institute in Underwater Archaeology
ASA	Abandoned Shipwrecks Act (U.S.)
AWM	Australian War Memorial
C	Celsius
Centimetre	cm
CIMA	Coordinated Investigation of Micronesian Anthropology
CHM	Cultural Heritage Management
CRM	Cultural Resource Management
CNMI	Commonwealth of the Northern Mariana Islands
COM	College of Micronesia
DCI	Decompression Illness
DGPS	Differential Global Positioning System
EW	Earthwatch Institute
FSM	Federated States of Micronesian
GDP	Gross Domestic Product
GIS	Geographical Information System
GPS	Global Positioning System
grt	gross registered tonnage
hp	horse power
HPO	Historic Preservation Office
ICOMOS	International Council on Monuments and Sites
IJA	Imperial Japanese Army
IJN	Imperial Japanese Navy
ITCZ	Inter-Tropical Convergence Zone
JEEP	Japanese Environmental Education Program
Kilometre	km
MEHP	Micronesian Endowment for Historic Preservation
Metre	m
Millimetre	mm
NAD	Naval Analysis Division
NARA	National Archives and Records Administration
NHL	National Historic Landmark

NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
PATA	Pacific Asia Travel Association
PI	Principal Investigator
RDF	Radio Direction Finding
SCRU	Submerged Cultural Resources Unit
SOPAC	South Pacific Applied Geoscience Commission
SPREP	South Pacific Region Environment Program
SRU	Submerged Resources Unit
TTPI	Trust Territories of the Pacific Islands
UCHM	Underwater Cultural Heritage Management
U.K.	United Kingdom
U.N.	United Nations
UNESCO	United Nations Education and Scientific and Cultural Organisation
U.S.	United States
U.S.CC	United States Commercial Company
U.S.N	United States Navy
U.S.NPS	United States National Park Service
WHC	World Heritage Committee
WHL	World Heritage List
WGS	World Geographical Series
WHC	World Heritage Convention
WTO	World Tourism Organisation
WWII	World War 2

Chapter 1: Introduction

Research questions and issues

The original concept for this thesis was to investigate and analyze the creation of a major maritime reserve in Chuuk, Federated States of Micronesia (FSM). Chuuk, formerly known as Truk, contains a large number of World War II Japanese shipwrecks and aircraft. Located within a large lagoon of clear, warm water, the shipwrecks have become known as the best wreck dives in the world and a number of films, books, articles and websites have been published which support and promote this view.

Chuuk has been home to indigenous people for about 2,000 years and currently about 50,000 Chuukese live in the region. Traditions, customs, cultural practices, the extended family, land, food, the use of magic and legends are important aspects of Chuukese life (Ashby 1985; Gladwin and Sarason 1953; Hezel 1992; King and Parker 1984; Marshall 1999). Beginning in 1886 with Spain, Chuuk has had three further colonial powers (Germany, Japan and the United States of America¹) and Catholic and Protestant missionaries greatly influence Chuukese' way of life.

During World War II, Chuuk was a strategic advance base for supplying Japanese ships, aircraft, stores and military personnel for the Japanese south-east expansion as well as being a major communication centre for the region. It was a vital base outside of the Japanese homeland and the U.S. Navy considered Chuuk the 'strongest naval base in the Pacific with the exception of Pearl Harbor' (United States Strategic Bombing Survey (U.S.SBS) 1947: 2). During the Japanese period, the Japanese population increased to four times that of the indigenous population and much of the limited land was taken over and used by the Japanese military (Clyde 1967: 99; Thompson 1945:2).

During 17 and 18 February 1944, the U.S. attacked Chuuk with aircraft launched from a fleet of carriers, sinking over 50 Japanese ships, destroying over 400 aircraft and a majority of the land military facilities including its five airfields. The air raids killed and injured over 5,000 Japanese and 123 Chuukese (Denfeld 1981: 51). The U.S. promoted the bombing as a payback for the Japanese bombing of Pearl Harbor in December 1941. A further U.S. aircraft carrier attack in April-

¹ Hereafter, I use the abbreviation U.S.

May 1944 together with continual bombing of the base from B-24 and B-29 aircraft with over 6,000 tons of bombs kept the base out of the war, without any amphibious assault and major loss of American life.

Just 25 years later, Jacques Cousteau (considered the pioneer of the scuba diving industry) and his team of underwater explorers dived the submerged Japanese World War II sites (hereafter referred to as submerged WWII sites), producing a film *Lagoon of Lost Ships* and retrieving ‘tons’ of artefacts (Bailey 2000: 265-266). Encouraged by American divers, a handful of Chuukese scuba divers began a dive tourism industry in the early 1970s on the sites that had up until that time only been used for salvage of metals (Kluge 1968: 15). However the submerged WWII sites were the final resting place for over 4,000 Japanese military personnel and diver interference with these war graves was not welcomed by many Japanese (Tzimoulis 1972). As a result of publicity, Japan mounted an expedition to recover some human remains and to lay to rest the souls of the dead men in the appropriate Buddhist manner. In 1971, Chuuk adopted legislation to protect the Japanese fleet and a system established where local divers were to be used in guiding visiting divers, but illegal recovery of artefacts continued. In 1976, world renowned marine biologist, Sylvia Earle and photographer Al Giddings reported on the natural heritage wonders and the many other attributes of the shipwrecks in *National Geographic* describing them as the ‘world’s largest collection of artificial reefs’ (Earle and Giddings 1976: 578). During the 1980s-1990s, the U.S. National Park Service (NPS) personnel investigated the sites and recommended the development and enforcement of a management plan (Carrell 1991: 460). In 2000, Bailey produced a 500 page book on the shipwrecks and aircraft aimed at the diving tourist, bringing together comprehensive primary historical data and site investigations and descriptions, which followed on from other work (Lindemann 1982, 1990; Hezel and Graham 1997; Stewart 1989). Al Giddings in a foreword in Lindemann’s (1992) work described the submerged WWII sites as ‘one of the great undersea wonders of the world.’

The work of Earle, Carrell, Lindemann and Bailey suggested the potential of the submerged WWII sites as world heritage sites pursuant to the United Nations Education, Scientific, and Cultural Organisation (UNESCO) *World Heritage Convention* 1972. In addition to the 1971 Chuuk legislation, the U.S. government placed the sites on the National Register of Historic Places in 1976, and declared the sites to be a National Historic Landmark (NHL) in 1986, one of 2,300 sites throughout the U.S. and its territories, and one of only two NHL sites in the Federated States of Micronesia (FSM).

My initial research topic investigated the issues surrounding world heritage listing including the concepts and criteria used by the World Heritage Convention (WHC) in assessing 'outstanding universal value' (World Heritage Committee (WHC) 1972). While I found Cleere (1993), Smith (2006: 97-102) and Titchen (1995) had examined the assessment processes, I wanted to pursue it at a more local level and I commenced an investigation into how Chuukese, Micronesians and other Pacific Islanders viewed the concept of world heritage listing. I also initiated a survey of the submerged WWII sites. A number of issues came out of this investigation including the fact that no-one in Chuuk or in the FSM national government had considered the case of world heritage listing of the submerged WWII sites. Research had shown that the Pacific Island nations in general supported world heritage listing but they considered the sites most relevant for listing were sites related to their own voyaging, settlement and use of the islands and that any other non-indigenous sites should be seen in this context (Jeffery 2004a) (See Appendix 1).

A number of views about the significance of the submerged World War II sites emerged from my initial research including the requirement for world heritage listing of existing effective management. As well as the illegal recovery of artefacts from the ships and aircraft, some were being stripped of their munitions for the manufacture of small dynamite bombs to be used in fishing the shipwrecks and reefs. Chuukese government agencies seemed powerless to deal with these issues. Some police have had dynamite thrown at them (Bailey 2000: 6) and in 2005 it was reported a police officer was killed while trying to apprehend dynamite fishers (Rudolph, A. 2006 pers. comm.). The U.S. Historic Preservation Program continued to fund projects in support of preserving the submerged WWII sites and as part of its frustrations in these endeavours gave a 'threatened status' to its Chuuk Lagoon NHL, claiming that vandalism and looting threatened their preservation. Japanese interests in the sites were mainly concerned with the human remains and the need to provide them with the appropriate Buddhist burial practices which they had previously carried out, but were more recently being denied by the Chuuk government (Bailey 2000: 3). Japanese pilgrims still visit Chuuk every year on 17 February to pay their respects to those who died. American war veterans do not remember Chuuk in the same way as they do battlegrounds such as Guadalcanal, Guam, Saipan, Iwo Jima and Okinawa where they carried out amphibious assaults and lost many lives.

While world heritage listing is further discussed in Chapter 9, it became clear that there were some more fundamental issues that needed to be investigated to understand the significance and complexities associated with the sites. The management of the sites seemed plagued with issues

associated with competing interests and potentially conflicting values.² It was thought that a better understanding of the significance of the sites to the Chuukese was of primary importance and in context with the significance of the sites to the Japanese and U.S. As this line of research developed it became clear that there were a number of different site values between the various stakeholders (Jeffery 2004b). It was found that these different values were often conflicting, which impacted on how the sites were being managed. One study (being one of only two management investigations for these sites) sponsored by the U.S. NPS suggested a range of possibilities for more effective site management. These included discussions about how Chuukese should be remembered for their war losses and how future site management could address their ‘memories, attitudes and traditions’ (United States National Park Service (U.S. NPS) 1989: 68). While the report suggested the management of the submerged WWII sites could include other values and meanings, its dominant approach was centred on the material remains from a U.S. perspective. The report does not appear to have been acted upon in any way. While one additional Chuuk study by Hezel and Graham (1997) brings the total number of reports on the submerged World war II sites to three, they are all dominated by the U.S. cultural resource management approach, being similar to other studies (see Delgado, et al. 1991; Lenihan 2001; Maharaj 1999) but no-where in the literature is this approach critiqued, hence the value of this study.

There have been some studies by archaeologists and anthropologists into the impacts of the war on the Chuukese and Micronesians including their association with WWII sites, but nothing associated with the submerged WWII sites in Chuuk (Adams et al. 1997; Hanlon 1998; Poyer et al. 2001; Rainbird 1995, 2001; Spennemann 1992, 2006; Useem 1945). I began to consider that the conflicts arising from the different values of the submerged WWII sites, that is, the contested nature of the meanings and associations with the military landscape, could be associated with the impacts of the war, the treatment of the Chuukese by the Japanese and the one and a half years of U.S. bombing. I also questioned whether there could be other influences from past colonialism, from the times of Spanish and German colonial rule and possibly from the French, British, German, Russian and American traders and missionaries.

In addition to the impact of colonial rulers, itinerant visitors, missionaries and the implementation of the war, I also questioned whether there was a similar resistance to neo-colonialism and the current global hegemony within which heritage is perceived. Gladwin and Sarason (1953: 46),

² The description of ‘value’ I use is related to the various measures and meanings that individuals and groups place on things and it can be tangible, intangible, local, global as well as in an individual or a collective action (Eiss and Pedersen 2002: 283).

Hanlon (1999: 71), Hezel (2003) and Useem (1945) have referred to Chuukese and Micronesians appropriating introduced systems and practices for their self preservation and being active players in formulating their futures. Many traditions, customs and cultural practices however remain as a primary focus in Chuukese identity. Traditions, customs and cultural practices are often referred to by western societies as intangible heritage, which has received little attention until recent times.³ While the U.S. Historic Preservation Program is conducted in Chuuk it has not been readily adopted by the Chuuk government and community. For instance, no Chuukese legislation has been enacted to protect and manage terrestrial historic sites at a state level. This provoked questions as to whether this was related to the marginalisation of indigenous voices within a western bureaucratic structure and whether tangible heritage was being privileged over intangible heritage.

Poyer et al. (2001) notes that a number of Chuukese value and share stories associated with World War II, and that many of these are associated with military facilities where Chuukese were involved (and particularly where some died in their construction) or where such activities had influence in their lives. During my research, I recorded a number of stories from Chuukese World War II survivors who were associated with Japanese colonial and war period sites. Many of the sites were in a decaying state, overgrown with jungle or had families living in the more solid concrete buildings. Rainbird (2001: 46-47) has suggested the concept of Chuukese abandonment of landscapes associated with World War II may intensify remembrances, but it could also be indicative of greater value being placed on the associated stories rather than the tangible material aspects. There could be other reasons for this, including the guarding of land against unwanted intrusion, or the fact that Chuukese are an impoverished society with little means to preserve or promote the sites.⁴ This issue is further investigated in Chapters 9 and 10 in context with the submerged WWII sites.

The submerged WWII sites do not appear to feature in the memory of Chuukese war survivors in the same way as terrestrial sites. This could be as very few Chuukese were killed on the ships during the air raids. The submerged WWII sites are certainly well known in the community as tourist destinations and are of considerable economic value—although only those in the hospitality industry benefit, the majority being the government, diving tourist operators, dive guides, hotel staff

³ Intangible can have many slightly different meanings: the *Convention for the Safeguarding of the Intangible Cultural Heritage 2003* defines it as ‘practices, representations, expressions, knowledge, skills’. This is further discussed in Chapter 9.

⁴ See Chapter 2 for further information on the economic situation in Chuuk; as an example Chuuk has a Gross Domestic Product of about \$2000 and about one third of its society falls below the poverty line.

and boat-drivers. At the inception of this industry in the 1970s, the creation of pleasure grounds for tourists, was actively pushed by a number of Americans and fitted into the U.S. post war policy which aimed at making Micronesia economically self sufficient—in line with how western societies should be—rather than considering what best suited Chuukese society.

The investigation into the conflicts between foreign values and Chuukese values of the submerged WWII sites suggested it may reveal issues associated with how people and groups in the different societies regarded each other, and what have been some of the influences in their relations. In furthering this line of research it was essential to investigate the differences in values, including how Chuukese regard their own cultural sites, colonial period sites and World War II sites. It was therefore considered necessary to focus the investigation in a reasonably substantial manner on the influences of the Spanish, German, Japanese, American colonial and post-colonial periods, and the war period, and not just the material culture remains related to these periods.

This line of investigation led to an examination of how heritage sites, and submerged heritage sites are valued throughout the world. In Australia, the *Burra Charter* emphasizes the need to manage heritage sites according to their ‘cultural significance’, being defined as of ‘aesthetic, historic, scientific, social or spiritual value’ (Australia ICOMOS 2000: 2). In relation to submerged heritage sites, the Australian government has prepared *Guidelines for the management of Australia’s shipwrecks* which uses specific criteria in evaluating the significance or value of a site, and for its management to be conducted in accordance with these values (Henderson 1994) (see Table 1.1). These guidelines used the *Burra Charter* as a reference in their formulation. The *Burra Charter*, a document produced by what is considered the peak world-wide body in cultural heritage matters, the International Council of Monuments and Sites (ICOMOS), is a reflection of the current global view of heritage and how it is valued.

But are these values appropriate in the case of the Chuuk Lagoon submerged WWII sites? Are there any other values that are more or less appropriate in their management and if so, do they conflict with these values? The *Burra Charter* states that: ‘Co-existence of cultural values should be recognised, respected and encouraged, especially in cases where they conflict’, but in practice how effective is this co-existence (ICOMOS Australia 2000: 5)? Smith (2006: 104-106) challenges the ICOMOS role of community groups and individuals in the conservation and management process, which places them in a ‘passive’ position to support the expert authorities. I found similar anomalies in the charter in relation to the Chuuk Lagoon submerged WWII sites, and in its blinkered approach to social value through the exclusion of anything other than ‘cultural sentiment’

such as economic value (ICOMOS Australia 2000: 12). The charter reinforces a technical and objective approach to the management and conservation of places of cultural significance, gives prominence to the fabric of a place and marginalizes community input (Smith 2006: 105). Byrne (1993) and Harrington (2004) have significantly advanced the discussion on the use of national and international charters and conventions to regions not unlike Chuuk, while I wanted to focus more on the meanings behind the conflicts in the site values. This developed into my research direction.

<i>Criteria</i>	<i>Description</i>
<i>Historic</i>	Significant in the evolution and pattern of history
<i>Technical</i>	Significant in possessing or contributing to technical or creative accomplishment
<i>Social</i>	Significant through association with a community in Australia today for social, cultural or spiritual reasons
<i>Archaeological</i>	Significant for the potential to yield information to an understanding of history, technological accomplishments and social developments
<i>Scientific</i>	Significant in the potential to yield information about the composition and history of cultural remains and associated natural phenomena
<i>Interpretive</i>	Significant for its potential to contribute towards public education.

Table 1.1: Criteria for evaluating Australia's shipwrecks (Nutley 1994: 21-27)

Research Aims

The primary focus of this study is to investigate the meanings behind the conflicts in values and uses of the submerged WWII sites. These sites include multi-vocal and contested narratives and meanings associated with the transformation of ships to shipwrecks through World War II, and then to cultural heritage sites, war graves, and economically valuable sites. A major objective of the study is to investigate what influences colonialism and the war had on Chuukese, and if there is any resistance to colonialism and neo-colonialism evident in the use of the submerged WWII sites. This approach will be useful in the understanding and management of submerged WWII sites throughout the Pacific, where local cultural practices and perceptions of heritage (including World War II sites and shipwrecks) may conflict with that of past colonial rulers. This investigation of the socio-historical and socio-political issues associated with the Chuuk Lagoon submerged WWII sites will help to reveal the interactions between the different past and contemporary societies. This could lead to new perspectives that incorporate contemporary societies and better site management that is of benefit to a broader group.

Research theory overview

The theoretical approach I use in this study is a post-processual approach to ‘Underwater Cultural Heritage Management’ (UCHM). I use the term UCHM in regard to the management process for the submerged WWII sites, being the same as Cultural Heritage Management (CHM) but placing the types of sites into their environmental context. This is consistent with current international practices, such as with the UNESCO *Convention for the Protection of the Underwater Cultural Heritage 2001*. Although I refer to the sites which are the subject of this study as submerged World War II sites, not heritage sites, given they are not the only type of underwater cultural heritage in Chuuk Lagoon.

Archaeological practice has played a long-standing and significant role in the implementation of CHM and Cultural Resource Management (CRM) where processual archaeological theory and objective scientific practice have dominated. This has caused conflict, particularly between archaeologists and indigenous people, community groups, tourists and developers as the heritage process lacked a social or cultural perspective (Mason 2006: 36; Smith 2004: 2; Trigger 1980: 669). It alienated people from their heritage, concentrated on the ‘fabric’ of a place or site rather than the cultural practice associated with it, yet purported to reflect local, cultural or national identities.

A post-processual, post-colonial theoretical approach that is subjective and inclusive is used to reveal aspects of contemporary Chuukese as manifested through their value and treatment of the submerged WWII sites in comparison with Japanese and American values. Similar approaches have been employed in relation to terrestrial heritage sites, the associated past and contemporary communities and their cultural practices (Bender 1998; Byrne 1993; Greer 1996; Harrington, 2004; McIntyre-Tamwoy 2000).

Post-processual archaeological theory challenged the scientific objectivity of processualism, by requiring social theories, engagement, and subjectivity in providing pluralistic meanings and has much relevance in this study and more generally in CHM (Hodder and Hutson 2003: 235). Increasing conflict over the meaning of heritage and the need for a democratic discussion, particularly with marginalized voices is embraced within post-processualism. Hodder and Hutson (2003: 207) maintain that contemporary politics should be part of the archaeological inquiry. This is an important area of my research as I maintain the political decisions being made today by the Chuukese regarding the submerged WWII sites are influenced by their colonial experiences. While the post-processual approach seeks pluralistic meanings and therefore opens the door to potential

conflict in heritage assessment and management, this can in part be overcome through ongoing dialogue, and multi-vocal interpretation and management (Shanks and Hodder 1998: 71-74; Smith 2004: 54).

The social theory I use is post-colonialism which addresses the impacts, resistance and responses to colonialism and neo-colonialism. It was considered that by investigating the values of the submerged WWII sites during the colonial and neo-colonial periods, expressions of colonialism would be discerned (Gosden 2004: 20). I concentrated on the local history of Chuuk, as local histories rather than global theories 'provide much insight into the varied articulations of colonising and counter-colonial representations and practices' (Thomas 1994: ix). Most studies, books, films and discussions about World War II in the Pacific centre on the main protagonists, Japan and the U.S. In comparison, little research and published material has focused on local communities and their relationships with Japan and the U.S. and if this has influenced the way in which they value and use the remains of the war.

Thesis structure

The thesis includes a further ten chapters. Chapter 2 provides background information on Chuuk, its first inhabitants and their customs, traditions and cultural practices. Chuuk is now part of the independent nation of the Federated States of Micronesia (FSM) together with three other regions (now states) Yap, Pohnpei and Kosrae. Apart from some language connection, Chuuk's people have a very distinct identity tied to their social, political and geographical environment and to a lesser extent their island voyaging. Chapter 3 investigates the theoretical approach used in the study, in context with other archaeological and social theories and practices, including the practice of CHM and CRM in Australia and the U.S. respectively. I argue that a more subjective approach incorporating post-colonial theory enables an understanding of the pluralistic meanings in the submerged landscape. This chapter also introduces and examines the concepts what is heritage, and heritage value. The methods used in the study are also examined, including the underwater and terrestrial site surveys, the ethnographic surveys and oral histories, and the literature review. Background on the current knowledge of the submerged WWII sites is provided in context with other types of archaeological, ethnographic and anthropological studies undertaken in Chuuk.

In Chapter 4, I begin an investigation into Chuuk's colonial history, starting with Spanish discoveries and subsequent administration of the region, then German administration, initial Japanese contacts and administration, and other foreign influences and impacts from missionaries,

traders and explorers. Spain and Germany administered Chuuk and the larger Micronesian region initially with small contingents of civilian, military and missionary personnel. Although it has been reported that Chuuk was one of the least disturbed Micronesian regions, primarily during the Spanish period (1521-1898), a number of groups and issues had a significant impact on Chuukese society (Hezel 1995: 63). During the German period (1899-1914), further changes were made after which time a substantial Japanese domination (1914-1939) developed the region economically and Japanese and Chuukese married, brought up families and enjoyed a way of life. The investigations carried out and documented in Chapter 4 are an important part in understanding the different complexities and conflicts of colonialism in Chuuk.

Chapter 5 investigates the last few years of Japanese colonialization (1939-1945), the period leading up to and during World War II in the Pacific. It outlines Japan's war strategies and activities, the role of Japan's merchant marine, the build-up of the Chuuk base and its subsequent bombing by the U.S. It also provides evidence of how Chuukese were impacted by the war, from the changes in the Japanese civilian then military rule, and the U.S. bombing. The end of the war brought another foreign power into Chuuk, the U.S. and they initiated a number of actions that were not unlike previous colonial rulers. They also initiated a disassociation with everything to do with Japan, its people, and the material remains in Chuuk (Hezel 1995: 249-251). This aftermath of the war and the lead up to Chuuk state and FSM nationhood—'independence with strings'—is covered in Chapter 6. As in Chapters 4 and 5, the aim of Chapter 6 is to explore the complexities of this period to further my argument regarding current views about submerged World War II sites and colonialism.

Chapters 7 and 8 provide details on the submerged WWII sites. Chapter 7 introduces and analyses the historical and archival data on the numerous ships and aircraft to confirm the identity of the submerged WWII sites in Chuuk Lagoon. Chapter 8 identifies the sites, corroborates and disputes the historical record, and provides data on the nature, integrity and condition of the sites, including some recently discovered shipwrecks. Evidence of different values and uses of the submerged WWII sites, including dynamite fishing, artefact souveniring and tourism are investigated. I also briefly introduce and examine some of the many terrestrial war sites and compare values associated with these and the submerged WWII sites.

Chapter 9 explores the values of the submerged World War II sites to the Chuukese, Japanese and Americans. A number of sources and data are examined, including ethnographic surveys, oral histories, questionnaires from Chuuk HPO staff and divers, interviews provided by a Japanese

researcher, and government information, to provide an understanding of how the three different stakeholder groups value the sites. I also investigate broader Pacific Island values as well as those of the international communities. The chapter also examines the current submerged World War II site management as another indicator of site values, as well as conflicts and management issues.

Chapter 10 outlines the discourses associated with the submerged WWII sites, specifically the way that Chuukese, American and Japanese remember, use and communicate about the material remains. I use this to inform my discussion about conflicts. I refer to my investigations of Chuukese local histories as well as the post-war relations between Chuuk and Japan. I also consider the U.S. legislative framework which is used to reflect elements of U.S. national identity but which is also part of the process used to protect the sites. A comparative analysis of three similar site types in other parts of the Pacific is implemented to critique my approach and argument that the conflicts in the values of submerged WWII sites can provide a post-colonial perspective of the societies involved.

Conclusions are provided in Chapter 11, including the usefulness of this approach in understanding Chuukese attitudes to submerged WWII sites. Other approaches that just focus on the tangible remains of submerged WWII sites could not provide a multi-vocal understanding of this contested landscape, yet management is often based on one dominant approach, and a limited view of values and meanings.

Chapter 2: Chuuk Lagoon: People and Place

Chuuk Lagoon

Chuuk Lagoon is located in the West Pacific Ocean, 3,700 km south-east of Tokyo, 5,450 km west of Hawaii and 4,000 km north of Sydney (Figure 2.1) The geographical coordinates are 7° 27'00" North, 151° 53'48" East on the island of Weno, the business and government centre of Chuuk state. Chuuk lies in the Eastern Hemisphere (the 180° meridian separating the eastern and western hemispheres) of the Pacific Ocean and has the same time as Sydney in Australia and 20 hours ahead of Honolulu in Hawaii. Chuuk Lagoon is the most populated part of the Chuuk state, located in the central region of the FSM. The other island groups in Chuuk state are the Hall Islands, 100 km north; Losap Atoll, 110 km south-east; the Mortlock Islands, 300 km south-east; Pulusuk, Puluwat and Pulap Atolls, 250 km west; and Namonuito Atoll, 250 km north-west (Figure 2.2). All of these outlying atolls contain low lying coralline islets just a few metres above sea level.



Figure 2.1: Chuuk locality map (Drawing by Judi Francis, 2004).

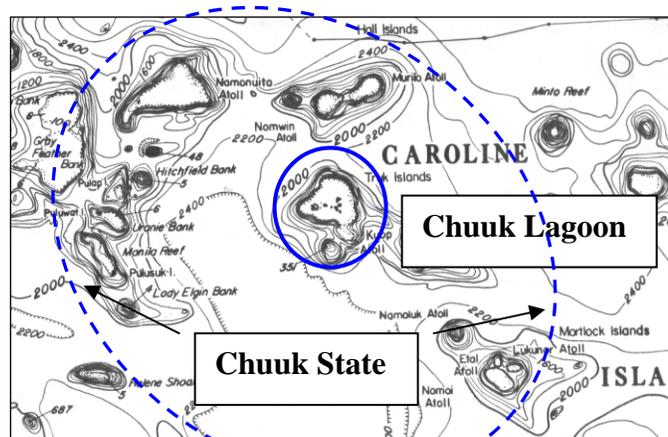


Figure 2.2: Chuuk Lagoon and outer Chuuk state atolls, showing bathymetric contours in fathoms (University of California, October 1970).

Chuuk Lagoon is enclosed by a circular shape barrier reef of approximately 63 km in diameter, of 2,125 km² in area and containing 18 inhabited high volcanic islands (LeBar 1964: 1) and has been described as the fourth largest atoll in the FSM (Hasurmai 2005: 387) (Figure 2.3). It is also referred to as an ‘almost-atoll’, the oldest physical environment in terms of atoll formation, being older than Kosrae and Pohnpei but younger than the western coral atolls (Rainbird 1995: 37). The

barrier reef contains 69 low lying coralline islets and a limited number of passes for ships and boats to sail through. Chuuk Lagoon is referred to as the deeply eroded summit of a former volcanic dome rising from the seabed over 1000 metres below (Karolle n.d.: 103). The high volcanic islands inside the lagoon are the tips of a volcanic mountain range and the corals have been colonizing the submerged slopes of the mountain range for hundreds of thousands of years, growing about 0.5 cm per year to form the circular barrier reef.¹ Kluge (1968: 38) in one of the first official tourist guidebooks of the TTPI claims Chuuk Lagoon ‘was one big island, a rolling mountainous hulk with today’s Udot Island at its approximate center which slowly sank’.

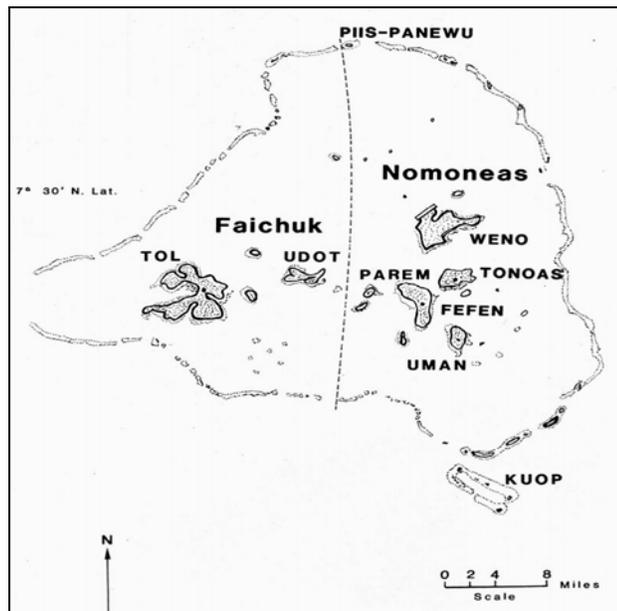


Figure 2.3: Chuuk Lagoon, showing some of the most populated high islands (Karolle n.d.).

The total land mass of the islands inside the lagoon is 91 km². ‘Nine of the largest islands, Tonoas, Weno, Fefan, Param, Patte, Polle, Tol, Udot and Uman make up 93 % of the total land of 8,478 hectares’ (Kanalz 1983). The nature of the island geography gave Chuuk its name. Feodor Lutke, Commander of a Russian scientific expedition into the Pacific in 1828 found: “‘Ruk’ or ‘Chuk’ as it is pronounced in some dialects-was originally neither the proper name for a particular island in the Truk group nor for the entire group; it is, as Kubary [in 1880] later observed, a general term used by central Carolinians of any elevated rocky land in contrast to coral reefs’ (Hezel 1973: 70, note 33). An ethnographic study revealed that some islands were named according to their shape

¹ Information on coral growth in the Pacific was found at www.carm.org accessed 5 May 2007.

and in some cases, such as on Tonoas the various features of the islands symbolized, as well as influenced the spiritual and physical characteristics of their inhabitants (Young et al. 1997: 16-17).



Figure 2.4: Panorama from Weno looking south to Tonoas (centre) and Fefan (right) and showing a large coastal area of mangroves (Photograph by Nicolas Bigourdan, 2006).

The lagoon islands contain twelve steep peaks exceeding 250 metres, the highest, Mount Tumuital on Tol is about 440 metres high (Kanalz 1983). There are also some areas of flat ground in the upland areas where the basalt and clay has mixed with debris to form fertile land that supports a lush vegetation (LeBar 1964:1). The uplands make up 73% of the islands and the coastal lowlands which consist largely of mangrove swamps, freshwater marshes, beaches, and raised beach deposits amount to 27% (Kanalz 1983) (Figure 2.4). Many of the lowlands are only a few metres above sea level and therefore susceptible to sea level rise through global warming.

Parker and King (1984: 62-63) found that Chuukese divide land into categories according to soil type, terrain, and vegetation of which there are eight primary categories and a number of subcategories particularly in the area between the shoreline and the mountain slope where ‘much of the traditional agriculture occurs’ (Figure 2. 5). Edible fruits and food grow extensively and include bananas, breadfruit, coconuts, mango, papaya and taro, of which some like breadfruit have been introduced (King and Parker 1984: 11) (see Figure 2.6 and 2.7). Chuuk is currently considered to have ‘the most endangered native forests in the FSM’², and many endemic species of reptiles, invertebrates, bats and birds are threatened by habitat loss, hunting and introduced species.³

² www.fsmgov.org/biodiv02 accessed 8 July 2006. Some of the biodiversity for the whole of FSM includes over 1,000 terrestrial plant species of which 200 are considered unique to the FSM. It has five endemic terrestrial mammals and 119 species of birds. It has also about 1000 fish species, four species of sea turtles, several species of marine mammals (inc. whales) and 350 species of hard corals.

³ www.worldwildlife.org accessed 7 July 2006.

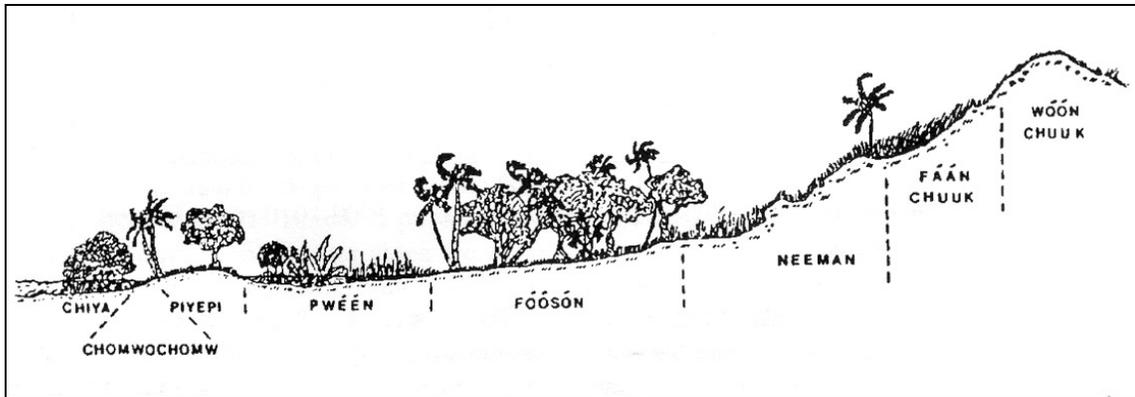


Figure 2.5: Chuukese environmental zones (King and Parker 1984: 62).



Figure 2.6: A taro patch on Weno.
(Photograph by Bill Jeffery, 2002).



Figure 2.7: Planted coconuts on Weno.
(Photograph by Bill Jeffery, 2002).

There are lowland areas where coastal transgression is taking place, which Rainbird (2004: 171) suggests could be due to a lack of traditional maintenance caused through a reliance on a western cash economy. An issue that is of concern to people in Chuuk is sea level rise. In June 2005, the Australian Bureau of Meteorology published some historical sea level data from Chuuk which showed a rise of 1.79 mm per year over the last 27.6 years.⁴ The other climate issue that affects the western Pacific and Chuuk is the El Nino effect, which was illustrated by the drought in 1997/98 and the need for food relief shipments to Chuuk.

⁴ www.bom.gov.au/fwo accessed 20 January 2007.

Chuuk's climate does not greatly vary throughout the year. Temperature remains between 24-31° C, rainfall can get as high as 365 cm a year, and the humidity can be high, particularly between July and November. This is when Chuuk is under the influence of the Inter-Tropical Convergence Zone (ITCZ) and when moist southerly winds and tropical disturbances are most frequent. From about November to June, the climate of Chuuk is influenced chiefly by north-easterly trade winds with average monthly speeds of 15-20 km per hour. By about April however, the trades begin to weaken, and by July give way to lighter and more variable winds of the doldrums (Kanalz 1983).

Typhoons are not common as the major typhoon tracts of the West Pacific lie to the north and west of Chuuk. However, typhoon *Amy*, which moved directly over Chuuk Lagoon in May, 1971 damaged several homes and buildings and destroyed 75-80% of crops, and in November 1987 super typhoon *Nina* passed close enough to cause widespread damage. In July 2002, tropical storm *Chata'an* dumped torrential rain on Chuuk causing massive land slides and killing 37 people before becoming a super typhoon and causing many more deaths in the Philippines and (to a lesser extent) Japan. Another typhoon passed by Chuuk in early 2004 causing damage to reef areas (Hasurmai et al. 2005: 389).

The water temperature in the Pacific equatorial belt which encompasses Chuuk is about 26-30° C and through the high rainfall in this region, salinity is lower than mid latitudes. Inside the lagoon, the depth of water can reach 70 metres, outside it drops off very quickly, reaching 400 metres within a few hundred metres of the reef edge, dropping down to 1,000 metres within one km of the barrier reef.

All of the islands have extensive coastal reefs and mangroves which support about 1,000 species of fish and 1,200 species of molluscs which are extensively fished for subsistence as well as for selling at the local markets and for export.⁵ Over exploitation and destructive fishing practices (dynamite fishing) are leading to a decline in some species (Hasurmai et al. 2005: 391; OPS n.d.: 114). In the 1985-1989 FSM First National Development Plan (OPS n.d.: 116) Chuuk was reported to be leading the FSM in fisheries development through the commercial exploitation of reef fish and pelagic fish such as tuna. Chuuk has an estimated 300 species of corals, the diversity and complexity being the highest in all of FSM. Surveys conducted in 1998 found a loss of 75% in hard coral coverage, which is considered to be as a consequence in the use of explosives taken from the shipwrecks (Hasurmai et al. 2005: 393-395).

⁵ These figures are for the whole of FSM (Hasurmai et al. 2005: 395)

Living in Chuuk Lagoon

Chuuk is the most populated region in the FSM, the high islands inside the lagoon accommodate 90% of Chuuk's population of 53,500 people, the total FSM population being about 107,000.⁶ The percentage of the population living inside the lagoon has increased from 67% in 1935, 70% in 1958 and 78% in 1994 which reflects the growing urbanisation of societies generally around the world who seek better access to jobs, food, housing, educational and medical facilities.⁷ The main island of Weno has a transient population of up to 20,000 people in an area of 1,900 hectares (of which much is uninhabitable) giving it the greatest population density of any island in the whole of the FSM. With this comes a number of problems, such as unemployment which for the whole of the FSM was estimated to be 22% in 2000 (4.2% for Palau in 2005 and 5.1% for the USA in 2005).⁸

Other relevant facts for Chuuk and the whole of the FSM, are that the single largest employer in the FSM in 2000 is the government, employing 67% of the population and major industries including tourism, construction, fish processing, specialized aquaculture and handicrafts. About 27% of the population are below the poverty line (USA, 12%; Palau, unknown); 89% of children over 15 can read and write (USA, 97%; Palau, 92%); and infant mortality rate is 29 deaths per 1,000 live births (USA, 6.4 deaths per 1,000; Palau, 14 deaths per 1,000).⁹

Economic figures for the FSM can vary depending on the source and those used here are Gross Domestic Product (GDP) figures to compare the state of the economy in the FSM with the U.S. and Palau. The estimated GDP for the FSM in 2005 was \$213.2 million¹⁰, which does not include the economic aid to the FSM which is about \$100 million annually. Approximately 33% of GDP 'can be attributed to subsistence activities such as fishing, agriculture, and copra production' (Hasurmai et al. 2005: 391). The FSM national per-capita GDP in 2005 was \$2,189, the highest being Yap at \$3,680, the lowest being Chuuk at \$1,288.¹¹ The estimated GDP-per capita for the U.S. in 2006 was about \$43,500 and for Palau it was estimated to be \$7,600 in 2005. It was estimated that the value of all the goods and services produced by the FSM in 2002 was about \$100 million as compared to

⁶ FSM 2000 Census at www.fsmgov.org/info/people.html accessed 28 April 2007. In 2005, Chuuk's population was 54,663, the FSM had a total of 110,352, www.spc.int/prism/Country/FM/stats/Publication/Yearbook/2005 accessed 9 May 2007.

⁷ FSM 1994 Census at www.fsmgov.org/info/people.html accessed 28 April 2007.

⁸ Figures from the FSM, the U.S. and Palau are used to provide a global and regional comparison. Palau is a separate and considered to be a prosperous Micronesian nation.

⁹ www.cia.gov accessed 16 October 2006.

¹⁰ The Chuuk currency as with all of Micronesia is US\$. FSM government economy www.spc.int/prism/Country/FM/stats/Publication/Yearbook/2005 accessed 9 May 2007.

¹¹ www.spc.int/prism/Country/FM/stats/Publication/Yearbook/2005 accessed 9 May 2007. In 2005, Yap has the second lowest population in the FSM with 11,855; Chuuk the highest with 54,663.

the USA of \$12.98 trillion (est. 2006), and Palau of \$174 million (est. 2001, which includes the USA subsidy of \$700 million over 15 years, c. \$47 million per year).¹²

The people of Chuuk are governed at a municipal, state and national level. There are 39 municipal areas, each with a constitution that can be democratic and traditional and the Chief Executive is the Mayor. Chuuk state government consists of an elected Senate (10 members) and a House of Representatives (28 members), who hold legislative powers, with an Executive branch led by a Governor and Lieutenant Governor. Chuuk is divided into five Senatorial regions, being Northern Namoneas, Southern Namoneas, Faichuk, Mortlocks, and the Northwest islands. The Chuuk Constitution respects Chuukese customs and traditions and Article IV, Section 2 records: ‘Nothing in this Constitution takes away the role or function of a traditional leader as recognized by Chuukese custom and tradition, or prevents a traditional leader from being recognized, honoured, and given formal or functional roles in government’. At the national level, which is governed by the Congress of the Federated States of Micronesia, Chuuk has six of the elected 14 Senators.¹³ The FSM has a Compact of Free Association with the U.S., which provides the U.S. with access to FSM land for military bases, influencing FSM foreign affairs, and controlling their defence, for which the FSM are financially supported. In 1991, the FSM was recognized by the United Nations as an Independent nation.

Indigenous history

In providing some cultural historical background of Chuuk, primarily in the lagoon, I have briefly covered aspects such as settlement, lifestyles and cultural practices in order to describe how Chuukese lived before foreigners arrived. A number of secondary sources were used, including Fran Hezel (1973, 1978, 1979, 1983, 1984, 1991, 1992 and 1995). Other major texts include King and Parker (1984) and their work on the Tonaachaw historic site on the island of Weno, Craib (1978, 1997), Goodenough (1951, 1966), Gladwin and Sarason (1953), Gladwin (1970), King (1977, 1978), Kiste and Marshall (1999), Parker (1981, 1987), Rainbird (1993, 1994, 1995, 2001, 2004) and Young et al. (1997). Very little anthropological or ethnohistorical work in Micronesia is from a Micronesian source, with the exception of Mauricio and Diaz, two islander academics. Rather, it comes from outsiders looking in which often results in islanders being ‘distorted or misrepresented’ (Hau’ofa cited in Rainbird 2004: 13).

¹² www.cia.gov accessed 10 May 2007.

¹³ FSM Legal Information System www.fsmlaw.org/fsm/index.html accessed 28 April 2007.

The original inhabitants of Chuuk are part of the Micronesian group as described by Craib (1997:1):

About 30,000 years ago, people from islands of Southeast Asia began moving into western Melanesia...however, it would be thousands of years later before the majority of the islands of Melanesia, Polynesia and Micronesia would receive the first human occupants; Micronesia was first inhabited during the last 3,500 years. A variety of forms of social organization arose as groups of people inhabited the variety of island environments throughout the Pacific.

Hezel (1992: 203) describes Micronesia as ‘broken up into perhaps ten cultural-linguistic groups [and] even before the first Western incursions into the area, they exhibited enough common features to be classified in that cultural family that came to be called Micronesia’. The Micronesian term, derived from the Greek and meaning ‘tiny islands’ was first put forward by Gregoire Louis Domeny de Rienzi in 1831 when he ‘asked for and received official approval from La Société de Géographie in Paris to call these islands Micronesia (Hanlon 1998: 1). Hanlon (1999: 76) has elaborated on the name Micronesia and regards it as a colonial construct in much the same manner as Rainbird (cited in Kiste 1999: 433). Goodenough maintains that ‘linguistic connectedness’ that can be found throughout the region and ‘interisland voyaging’ gives the area, a ‘certain cohesiveness’ (Kiste 1999: 434).

Linguistics, archaeological and anthropological research continues to play major roles in the study of Micronesia’s first inhabitants. Two subgroups of the Austronesian language group are present in Micronesia—West Malayo-Polynesian and Oceanic (Rainbird 2004: 51). The former is found in the western high islands of Micronesia—the Chamorro speakers in the Marianas, and Palauan speakers among the Palau group. The remainder of Micronesia is populated by ‘Nuclear Micronesian’ speaking groups, the Oceanic languages related most closely to those found in eastern Melanesia, which encompasses Chuuk (Craib 1978). There are a number of theories about the spread of the Oceanic language group.

Marck (1975: 46-47) argues for a distinct east to west linguistic divergence (population movement) beginning at or towards the extreme eastern end of Micronesia. He identifies the internal relationship of Nuclear Micronesia as follows: ‘a rather rapid settlement of Eastern Micronesia (Pohnpei, Marshalls, Kiribati) between 2800-2400 BP, by 2000 BP Truk was settled and as the movement continued west, all the western atolls were inhabited by 100 BP’. He nominates Kosrae as the probable ‘homeland’. Blust (1976: 29) has argued that by 3200 BP people had left the south-east Solomons area, moving into the atolls of Kiribati and that ‘the rest of Micronesia, apart from Palau, Yap and the Marianas was settled by a gradual south to north and east to west movement’.

Rainbird (2004: 51-69) elaborates further on the movement of people across Micronesia and expands on the use of linguistics and current archaeological and anthropological findings. He suggests that based on ‘pottery characteristics, other material culture and linguistics’, people are thought to have come from the south (Rainbird 2004: 92). The inhabited islands in Chuuk Lagoon are split into two regions, Faichuk to the west and Namoneas to the east, based on minor differences in dialect (LeBar 1964: 1) (see Figure 2.3).

Excavations on and off the island of Fefan in Chuuk Lagoon have, according to Rainbird (2004: 89) been dated between 2350 and 1650 years ago, which Craib (1997: 13) argues are the oldest pottery-bearing sites in central and eastern Micronesia. Craib (1997: 13) also suggests that Chuuk was settled prior to Pohnpei and Kosrae. However, Chuuk legends refer to the first inhabitants of Chuuk as having come from Kosrae although Goodenough (1986: 551-568) contends that the legends have been miss-interpreted and Kosrae or *Kachaw* as it is referred to, is a ‘sky world’ rather than a physical place. One of these legends refer to Mt. Tonaachaw as a significant place where the ‘culture-bearer *Sowukachaw* established his meetinghouse and brought law and social organization to the people of the islands’ (Parker 1987: 2) (Figure 2.8). In his work in Puluwat, 240 km to the west of Chuuk, Gladwin (1970: 4) heard through local tradition that these islands were settled from the east—from Chuuk—and that Chuuk itself was settled from either Pohnpei or Kosrae, ‘from whence the first woman arrived pregnant, sailing on a coconut frond. Linguistic evidence seems in this case to support tradition’.

It is generally accepted that Chuuk has been inhabited for about 2,000 BP¹⁴ (Craib 1997: 8; King and Parker 1984: 419; Rainbird 2004: 89, 170; Sinoto 1984: 122; Young et al. 1997: 1) and that the inhabitants were initially coastal dwellers living in stilt houses and who produced a simple undecorated pottery from local clays (Rainbird 1993). Around 1,500 years ago, pottery disappeared from the archaeological record, verified by radiocarbon dating and stratigraphy (King and Parker 1984: 419). A 800-1,000 year ‘long gap’ in the occupation of Chuuk was discerned from further archaeological work, and following a review of this work in the 1990s, a lack of human settlement in Chuuk was verified for this period (Rainbird 2004: 170).

¹⁴ The earliest known archaeological sites are on Fefan Island, from which many dates have come. King and Parker (1984: 419) use dates 500BC and 500AD as to the first settlement in Chuuk. Sinoto (1984: 122) uses ‘approximately 2000BP’, Rainbird (2004: 89) provides dates of ‘between 2350 and 1650 years ago’.

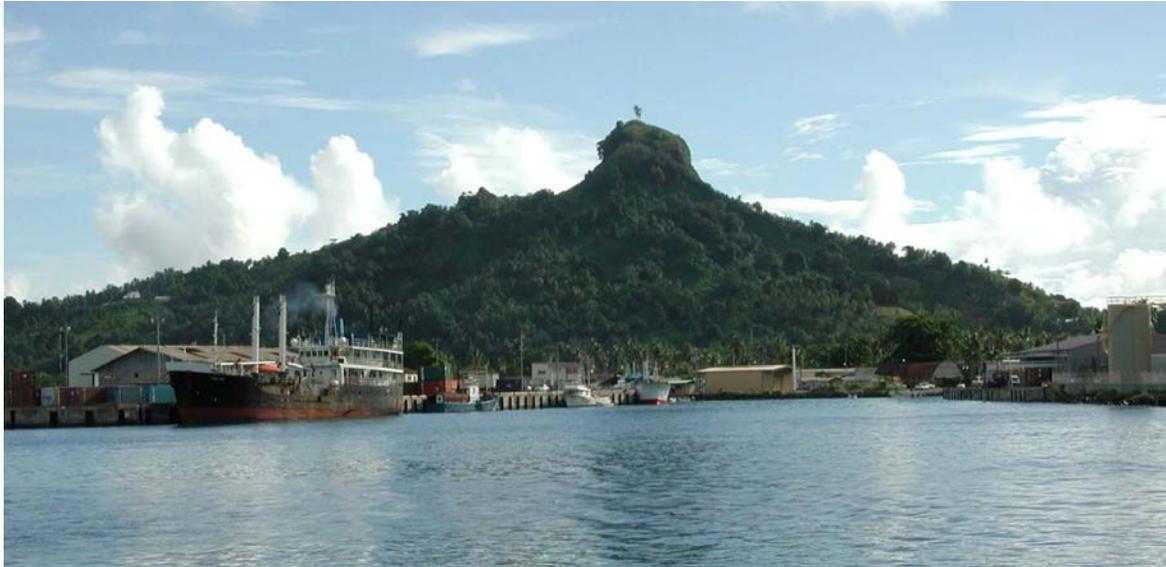


Figure 2.8: Tonaachaw on Weno (Photograph by Arimichy Rudolph, 2006).

Rainbird (1993) developed further the early settlement patterns of the high islands in Chuuk Lagoon and found evidence of hill top occupation from about 500 years ago up until European contact, and more sedentary settlement on the coast and hill slopes. The hill top settlements were characterized by shell middens, wooden meeting houses (*wuuts*) and stone forts which ‘created a perception of territoriality, this in turn seems to have caused friction which led to intra and inter-island warfare, as is suggested by the numerous forts’ (Rainbird 1993). King and Parker (1984: 14) suggest that the change in the archaeological record can be related to a change in subsistence base related to the addition of breadfruit as the new staple crop. It was found that breadfruit could be stored in pits for many months and eaten when no fresh produce was available, thus allowing for the creation of stable sedentary communities (see Figure 2.9).



Figure 2.9: A breadfruit pit—this one is utilising the shelter of a Japanese military building on Etten. (Photograph by Bill Jeffery, 2006).

In a report prepared for the Chuuk HPO, Edwards and Edwards (1978) described one of these hill-top stone fort structures:

On Tol Island in the Truk District of the Caroline islands, a large basalt fortress commands a mountain top view of Truk Lagoon. This fortress, Fauba, [an informant associated with the Edwards's work translated Fauba to mean "rock shield"] has stood guard across from Winibot Mountain since at least 1600 AD and possibly prior to historic contact. Fauba continues to this day to be a sacred spot to the people of Tol. At the time of the research 1978, little information on the archaeology and history of Fauba was available in Truk. The Trukese recognize the site as 'very old' and of religious importance. We know that Fauba, a mountain fortress, has stood guard across from Mt Winibot as a sentinel against intra and inter island threats for hundreds of years. It may well be the best preserved physical representation of aggressive social ways of Truk as noted by so many of the early explorers.

Excavation of a midden on Mount Tonaachaw by King and Parker (1984: 416) dated an associated fire-pit to 570 ± 70 BP. Excavation of a midden on Chukienu on Tol dated charcoal found underneath stone paving to 275 ± 80 BP and from another section of the midden, charcoal was dated to 480 ± 90 BP (Rainbird 1995: 72). These and later stone platforms were interpreted as foundations for community meeting houses as they were located on a vantage point, where access was difficult and the site was defensible (Rainbird 1995: 72).

Warfare between islands and sometimes between villages appeared to play a major role in Chuukese lives and the archaeological record reflects this as do a number of oral histories. Mitchell (1967) in his doctoral study of the *Cultural, Historical and Acculturative factors influencing the*

Reptires of 2 Trukese Informants found, ‘Intermittent wars between and within the peoples of various islands characterised the Trukese society as far back as we know it’. Young et al. (1997: 18-23) provides a number of accounts of the life of a warrior named Soon from Tonoas, who was constantly fighting people from the neighbouring island Fefan. These oral histories include a fight over the control of four barrier reef islands, which the people of Tonoas won and as a result Soon became chief of all of Tonoas (Figure 2.10). The barrier islands and reefs were (and still are) very important to Chuukese as it is where most of the edible fish are caught (Gladwin 1953: 56).

The oral histories related to Soon describe how people from another village on Tonoas became disobedient under Soon’s leadership, so they were attacked and conquered (Young et al 1997: 21). Hall and Pelzer (1946: 29) state that ‘wars could be set off by such minor incidents as the stealing of a woman or a coconut’, a proposition supported by Goodenough’s research in the late 1940s (Rainbird 2004: 172). Although later research found wars, particularly in the 18th and 19th centuries were related to ‘revenge and retribution and a general restructuring of political boundaries’ (King and Parker 1984: 77).



Figure 2.10: Chuukese man from c. 1900. When I showed this photograph to some Chuukese men, they said it looked like Soon, although this man is much younger than Soon, who would have been about 65 years old in 1900 (Source, Micronesian Seminar).

Chuukese clans

Chuuk society is structured around matrilineal clans which were ranked according to their time of settlement, numerical strength, knowledge and skills, amount of land ownership, and success in battle. Young et al. (1997: 8) goes on to explain clan living arrangements:

After marriage, residence was matrilineal, that is, the husband moved to live near his wife and her sisters in adjacent dwellings on clan land. Territorial grouping was centred around one or more matrilineal extended families (lineages). The husband had labor obligations to his wife's lineage and also to his own lineage. Since he might spend considerable time visiting his own lineage, his preference was to live close to his own lineage for travel convenience. The senior man of the lineage experienced the strongest loyalty to his own lineage because he was head of this group, and lineage members had to consult him on all major decisions.

From 1947-1949, the U.S. Navy sent 43 anthropologists, linguists and geographers to Micronesia as part of the Coordinated Investigation of Micronesian Anthropology (CIMA) program. Four anthropologists, a linguist and a botanist went to Romonum Island in the lagoon in 1947. Thomas Gladwin who was one of them studied Chuukese life cycle and personality. In association with Seymour Sarason (Gladwin and Sarason 1953: 51), he later documented the importance of family lineages:

Primary among these, as Goodenough has made clear, is the ownership of property, in which the lineage commonly acts as a corporation. The net effect of this joint ownership is to limit quite severely the amount of individual discretion a person can exercise in disposing of or otherwise changing the status of property without obtaining the approval of the lineage, and particularly of the oldest man in it who is normally its head. While the jurisdiction of the lineage is confined largely to land, and what grows or is built on it, the concept of community of property which exists formally in this context is generalized to include all forms of movable personal property besides.

Each clan had a chief and the highest ranking clan headed each village—the village chief, whose title was passed onto the oldest of the chief's brothers. The chief's duties were to organize economic, social, law and order arrangements, warfare and 'act as a representative of the island's protective spirit (Anu Aramas)' (Young et al. 1997: 8-9). Clan chiefs were also considered the custodian of the land (Hall and Pelzer 1946: 24). They were afforded great respect in accordance with the ranking of their clan and in their 'fairness, impartiality and general treatment of their people' (Young et al. 1997: 9). While there were a number of dialects, Chuuk (the lagoon and outer islands) was covered by the one language but was split into many small districts, several on a single island and ruled over by petty chiefs (Hezel 1992: 203). The numerous petty chiefs, the lacking of a strong central authority in combination with the Chuukese nature of being vindictive when offended, brought on the many wars according to Hezel (1995:65). Young et al. (1997: 9) documented how some villages formed alliances (districts) during warfare:

Districts functioned in warfare but were never very stable since alliances changed frequently. There were two loosely organized supra-district confederations, one called *sopwunupi* after the highest ranking clan on Moen [Weno] and another called "*chun*" that was based on Fefan. Moen ranked highest among the islands in the lagoon because of its wet taro production to which others could turn in times of famine, while Fefan was notorious as the most warlike island. Victory in war gave a

material basis for higher rank because one of the important spoils of war was fishing rights on the outer reef of the lagoon.

Itang

A village also contained an *itang*, a ritual specialist from the same clan as the village chief and who was the keeper of knowledge, legends and protective magic, and advised the village chief on policies and war strategies (Young et al 1997: 8). King and Parker (1984: 53) note that *Itang* is a 'form of speech reserved for the transmittal of lore involving history, magic, warfare, the origins of clans, navigation and control of the natural environment' and to which Goodenough and Sugita (cited in King and Parker 1984: 53) refer as 'a special style of poetic discourse, or rhetoric, rich in metaphor, obscure allusion and hidden meaning'. There were seven schools of *itang*, from high to low with only the lower levels being used today (King and Parker 1984: 53). It was the *itang* that passed on Chuukese legends, lore and information about traditionally important sites. For example, *Tonaachaw*, in addition to its significance in traditional history:

Is viewed as a supernatural octopus, *kuus*, whose tentacles stretch out across Truk Lagoon to the outer islands. Landmarks on the slopes of the mountain, on the fringing reef, and even on other islands, lying along the metaphorical tentacles are viewed as important, and as being related to the mountain peak itself. It is probable that the octopus metaphor is associated with the transmission of sailing directions that in prehistoric times helped navigators find their way around the Lagoon and across the open sea. (King and Parker 1984: 55) (Figure 2.8)

Food

Chuukese lived off scale fish (which both men and women caught by deep water trawling, netting and using stone weirs), shell fish, turtle, breadfruit, taro, banana, mango and coconuts of which the lagoon, reefs and islands had a good supply (Figure 2.11). The subsistence economy in the Pacific is proportionally relatively high; families can produce all they need in '3-4 male labour hours a day' (Fisk cited in Hezel 1992: 204). This meant that plenty of time was allowed for people to maintain social relationships within the family and the lineage, and even develop elaborate social rituals (Hezel 1992: 203). Gladwin and Sarason (1953: 52) also emphasized the importance of food and family relationships: 'It is not surprising to find that it is in matters related to food that the solidarity between kinsmen finds its most explicit expression in everyday life'. This special relationship to food and kinship is extended to land. Marshall (1999: 121-125) emphasizes these special relationships and notes that people in Chuuk refer to land as food. Flinn (1990: 107) also noted the kin relations and sharing of land symbolism in sharing food, and seen to be a fundamental element in Chuukese cultural identity.

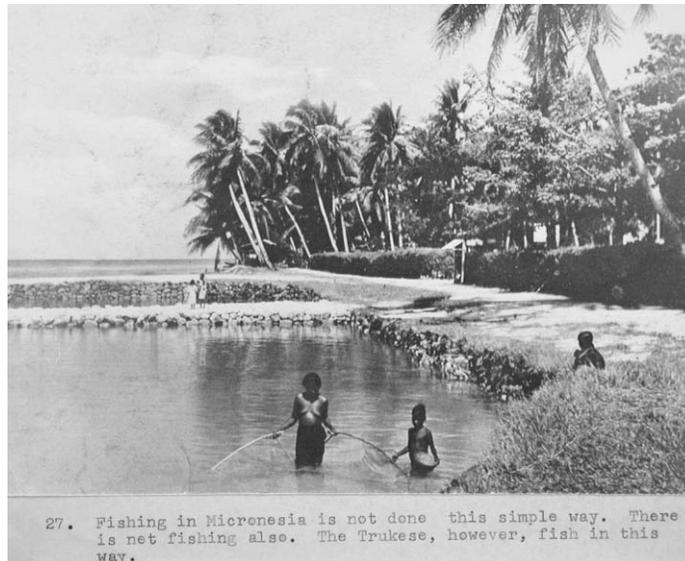


Figure 2.11: Fishing on the shallow reefs, carried out by Chuukese women (Source, Micronesian Seminar).

Water craft

Water transportation was, and is an important aspect of life in Chuuk. Today this is carried out using fibreglass boats and outboard motors and the shopping area around ‘Downtown’ on Weno is constantly a buzz with these craft coming and going from the other lagoon islands and reefs, and the outer islands. In 1830, Benjamin Morrell, captain of the trading vessel *Antarctic*, documented two types of paddling canoes in Chuuk and while a number of sailing canoes were later documented by Hornell (in the 1930s) in other parts of Micronesia, including Yap, none were documented from Chuuk Lagoon (Neyret 1976: 145). One of the canoes documented in Chuuk was a single hull canoe with outrigger that contained ornamental pieces ‘representing a sea swallow’ on the extremities of the canoe: ‘They can be raised or lowered at will with a rope, and indicate the hostile or passive intentions of the crew. Erected, they signify war; lowered they signify peace’ (Figure 2.12). The larger canoe was a twin-hull war canoe which consisted of two tree trunks dug out into two canoes about 12 metres long and joined together by numerous traverses of bamboo separating them by 2.5 to 3 metres. This enabled the transport of 50 fighters and a great quantity of weapons and food (Neyret 1976: 146) (Figure 2.13).¹⁵

¹⁵ Translated from the original French text by French national Nicolas Bigourdan.

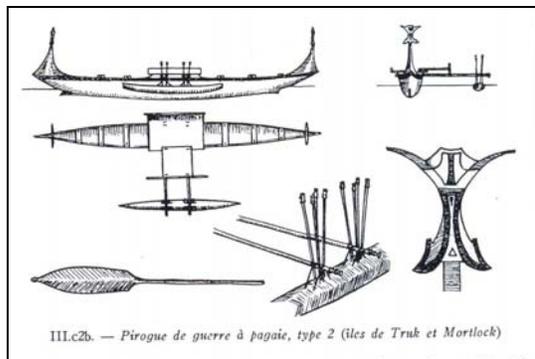


Figure 2.12: Single hull canoe with outrigger (Neyret 1976).

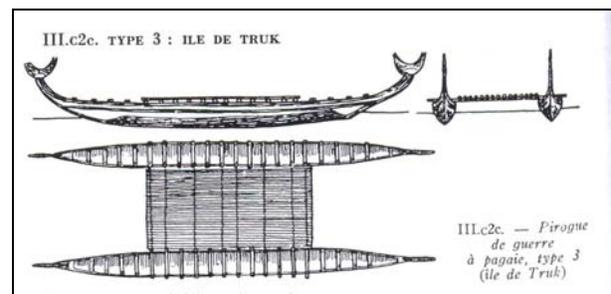


Figure 2.13: Twin-hull craft (Neyret 1976).

Hezel (1992: 204) provides the following explanation as to the lack of sailing canoes in Chuuk Lagoon: ‘Micronesians engaged in some inter-island trade, but this was of marginal importance since most places had the same limited resources anyway. Only the atoll-dwellers, exposed to the fury of the typhoons that periodically denuded their islands, were the traditional trading networks essential’. The inhabitants of the region from Yap to Chuuk were some of the most knowledgeable and highly skilled navigators of Micronesia and on a number of occasions they ventured to the Philippines, Guam and the Marshalls (Hezel 1983: 102). One of the indications that Chuukese may have been associated with these voyages can be seen in the poncho style clothing worn by some Chuukese. Brown (1927: 94-95) suggested that they could have been acquired through the drift voyages to the Philippines and Guam where sailors aboard the Spanish Manila galleons, originating from central America could have been encountered. Another associated feature of the canoes was the canoe house which was located adjacent to the shore. Today, it is rare to see any type of canoe, or specific canoe house in Chuuk Lagoon. King and Parker (1984: 420) have described *wuuts* as being used as canoe houses, which was found to be the case in a building described as a ‘boathouse or uut [wuut] from Uman’, (see Figure 2.14).



Figure 2.14: ‘Boathouse or uut in Uman’, unknown date (Source, *Micronesian Seminar* Pl 23).

Conclusions

In concluding this brief outline of some aspects of the first inhabitants of Chuuk Lagoon there are a number of aspects that I would like to highlight. One is in the Chuuk landscape and its spiritual associations known through traditional stories, and the ownership of the land and water by lineages and clans. Many landscape features provide spiritual connections to Chuukese history, mythology and settlement of the islands as well as in a metaphorical manner, through the *Itang* language. The sites and stories are still a strong and tangible part of Chuukese society in the same way land ownership is. In a compilation of short stories by students of the College of Micronesia in 1985, they told of the value of land to Chuukese:

The Trukese value land as being more important than any of their possessions. We believe that if a person does not have a piece of land or two, then he is not a real Trukese. If a person has no land, he will be considered very poor and he might lose his identity and self-respect. The Trukese value land so much that fights occur if there is a dispute over its ownership, even between relatives. The Trukese firmly believe that a man can only exist if he has land. Land is the source of food as well as wealth to the Trukese. Besides food and wealth, land ownership has another advantage. All parts of native thatched roof houses can be made from parts of tress that grow on one's land. Trukese get fish from the sea, but indirectly from the land. Without the products of the land, they would not be able to build boats and make equipment necessary for fishing. (Ashby 1985)

Ownership of a piece of land also meant ownership of the adjacent reef and its resources and for a clan or village this could extend to a section of the barrier reef. Victors of wars between villages and islands gained ownership of island reefs as well as the sections of the barrier reef. Ownership of the submerged reefs inside the lagoon has been enshrined in today's Chuukese Constitution which states:

Section 4. Traditional rights over all reefs, tidelands, and other submerged lands, including their water columns, and successors rights thereto, are recognized. The Legislature may regulate their reasonable use [and the case notes help to define these tidelands, being]¹⁶

Case annotations: The people of Chuuk have always considered themselves to have rights and ownership of the tidelands, and thereby hold the property rights in them, throughout all of the several foreign administrations. These traditional and customary claims came down from time immemorial.¹⁷ Tidelands traditionally are those lands from the dry land to the deep water at the edge of the reef, and must be shallow enough for Chuukese women to engage in traditional methods of fishing.¹⁸

Hall and Pelzer (1946: 29) suggest that land and reef ownership in the past included 'property rights to lagoon, like those to fish weirs [and] following the recent removal of Okinawan fisherman from

¹⁶ www.fsmlaw.org/chuuk/index.htm accessed 8 October 2005.

¹⁷ *Nimeisa v. Department of Public Works*, 6 FSM Intrm. 205, 208 (Chk. S. Ct. Tr. 1993) accessed 8 October 2005

¹⁸ *Sellem v. Maras*, 7 FSM Intrm. 1, 4 (Chk. S. Ct. Tr. 1995), accessed 8 October 2005.

Truk [after the war] there may be a tendency to start reasserting property rights to lagoon.’ As of 2007, this had not been asserted and little information was found on this issue during this study. It is indicative of how marine tenure in Micronesia is a complex issue which is further illustrated through what happens in Yap. In Yap where they have a surrounding reef flat that can extend to over 3 km offshore, it is all owned by different family estates and various other estates can have access to fish in these areas but only using prescribed fishing techniques. Marine tenure in Yap can also extend to outside the reef flat and include access to flying fish unlike Chuuk where tenure stops at the reef front. In Yap, this information was only passed-on as oral history but more recently it has been documented to assist the current government in managing marine resources (Uwate 1987).

There are a number of landscapes and archaeological sites that are still considered important to Chuukese and some that do not receive much interest. Landscapes that are valued by lineages and clans for their association with traditional history include Mt. Tonaachaw on the island of Weno (see Figure 2.8), the Turtle Cave on the island of Pata, as just two examples, and there are a number of similar sites and features on many other islands. There is at least one petroglyph site on the island of Weno, and while some Chuukese regard it as an important site from their past, little is known about it (Figure 2.15).

There are also a number of tangible remains of the pre-contact period that Chuukese today value because of their association with early traditional history. They include some of the villages located on the lagoon islands that have been dated using archaeological material to the beginning of Chuukese settlement. Examples of these include the village of Iras on Weno (2300 BP) (King and Parker 1984: 225-326); the village of Sapota on Fefan (2350 to 1650 BP) (Rainbird 2004: 89); and from Mechitiw, the village established by the first Chuukese chief, *Sowukachaw* (King 1978). Significant structures include the remains of meeting houses, as either reconstructed houses today (generally re-built in concrete to resist the typhoons) which can be found on all of the lagoon islands. As Chuukese moved up the hillsides to settle, stone platforms for *wuuts* or defensive sites can be found, such as on Mount Tonaachaw on Weno, Chukienu on Tol, and the most well-known fort site of Fauba on Tol, dating c. 400BP (Rainbird 2004: 173).

The other aspect I want to highlight as significant in the society and culture of Chuukese is the social organisation. Hall and Pelzer (1946: 22) state that ‘Truk society is divided into three large groups: chiefs, chief’s people and common people or low-class people. In the old days status was predetermined at birth [and] in the chief, his activities and his associates one finds the core of Truk

culture'. Without going into more detail than has already been stated, as an individual in a lineage, Chuukese had little individual rights, they were governed by the chief and he had control over land (and what grew on it), movable personal property, food and marriages (Gladwin and Sarason 1953: 51). Lineages were formed into clans and the chief of the leading clan was the village chief. The hierarchy usually stopped here, there were no island chiefs except when through expediency, villages fought together against a common enemy, once the fighting was finished, social structure quickly reverted (Hall and Pelzer 1946: 29).



Figure 2.15: Petroglyphs on Weno (Photograph by Bill Jeffery, 2002).

Most importantly, Chuukese cultural practices, customs and traditions are inherent in every aspect of daily life. These include social structure and relationships, education, kinship, associations with the land and reefs, growing, preparing and sharing food, fishing practices, dances, family stories and magic. Aspects of these cultural practices can be manifested in what is sometimes called tangible heritage, but much of it is intangible. All constitute an important part of being Chuukese. In contrast to western, scientific construction of heritage, tangible heritage is of less value in relation to Chuukese cultural identity.

I want to make a final important point about the fluidity of Chuukese culture and practices. I have attempted to show, by means of phenomena such as the 'long gap' of occupation and loss of pottery described by Parker and King (1984: 419) and Rainbird (2004: 170-176), that lifestyles can and

perhaps have to change to meet new challenges. As time moved on, Chuukese moved from being coastal dwellers to hill top inhabitants, to preserving breadfruit, and from fighting wars over women to fighting wars over political boundaries. It illustrates the dynamic nature of Chuukese culture and practices. However other elements, such as kinship, land and food remain static and as an important core in meeting these new challenges.

Chapter 3: Searching for meaning

Introduction

Throughout this thesis, I argue that the present day conflicts in the management of Chuuk Lagoon's submerged WWII sites are a result of the different values and discourses associated with them, and from a Chuukese perspective, the conflicts are in response to colonialism and neo-colonialism. As part of this study, I examine how an investigation of submerged WWII sites can provide information about social issues, such as in this case, past and present colonial attitudes and the impacts on Chuukese. As a result of investigating how Chuukese value the submerged WWII sites and the impact of colonialism, I also focus on how this has impacted the management of the sites. This differs from other approaches to the management of submerged WWII sites, which tend to use the dominant cultural perspective, knowledge and scientific practice of the archaeological professional to compile a statement of significance and subsequent management regime. This study of Chuuk Lagoon's submerged WWII sites provides information about a present day community, their perceptions of this material and on what basis they perceive it.

I use this chapter to explore the theoretical approaches that allow for this perspective. Four previous heritage management investigations of Chuuk Lagoon's submerged WWII sites have been implemented in the past but not within any explicit theoretical context (Carrell 1991; Hezel and Graham 1997; Lenihan 1992; United States National Park Service (U.S.NPS) 1989). These investigations, along with other examples of the value and management of submerged WWII sites in the U.S. and elsewhere in the Pacific, are critiqued in Chapter 10 to compare the approaches used and the information they provide.

Shipwreck Anthropology

In the *Shipwreck Anthropology* seminar article, 'Looking below the Surface: Shipwreck Archaeology as Anthropology', Gould introduces his discussion on theories in maritime archaeology with the following scenarios:

Consider the predicament of an underwater archaeologist about to confront a series of wrecks in a setting like Truk [Chuuk] Lagoon or the Great Lakes, where the materials consist of ships wrecked fairly recently and on a massive scale. The accepted image of shipwreck archaeology is based on

wrecks of great classical or historical antiquity and finite or limited scale—for example, amphora wrecks of the Mediterranean or Spanish wrecks from the Armada of 1588. Descending into Truk Lagoon or Lake Superior, our hypothetical underwater archaeologist soon perceives that the inherited wisdom of wreck archaeology may not help him as much as he would like. For one thing, the sizes and numbers involved preclude any realistic attempt at total excavation. And their relative recency, in some cases as little as thirty-five or forty years, confounds the conventional view of archaeology as dealing with the ancient past. What is our hypothetical underwater archaeologist doing here anyway? (1983: 3-4)

I contend, and this is confirmed by the underwater archaeologists that visited Chuuk, that they focused their investigation on the management of the shipwrecks (Carrell 1991; Lenihan 1992). Gould makes no mention of site or heritage management in his paper, and does not place the research of the Chuuk Lagoon shipwrecks into any theoretical framework. He explains the aim of his paper and of the seminar in which the paper was provided, namely that ‘shipwrecks are part of the legitimate domain of archaeology and can produce results that are as significant for our ability to explain variability in human behaviour’ (Gould 1983: 5). He used the Chuuk example as a relatively recent group of shipwrecks, not only to highlight the quandary the archaeologist may have in studying such a modern group of artefacts but how historical documents are used extensively in researching sites and artefacts associated with the historic period. This has led to ‘historical particularism justifying much of the current work in shipwreck archaeology’ and often referred to as the culture history approach (Gould 1983: 4). This approach considers the shipwreck as a time-capsule of the wrecking event and the societies involved and together with pertinent historical documents, the studies of the material remains provide a window into the cultures / societies at that time. Gould’s view is that that there should be ‘urgent concern for the conservation and selective study of shipwreck remains as a resource capable of providing unique information and ideas about human behaviour. A new willingness to posit generalizations about past and present-day human behaviour based upon shipwreck remains’ (Gould 1983: 21).

Gould is arguing here for a processual archaeological approach, the use of research designs and objective scientific techniques to help explain human behaviour and provide universal laws. In a later book by Gould (2000: 3) *Archaeology and the Social History of Ships*, he states that shipwreck archaeology should ‘go beyond their immediate circumstances to include the social conditions that surround them’, and be part of an investigation into ‘sociocultural processes’. This concept would appear to argue for an investigation of the socio-cultural processes that make up a society, which may provide for various explanations of human behaviour. As an example, Leone and Potter (2001: 570-598) demonstrated in the interpretation of their archaeological and oral history research in Annapolis that it is possible to encourage and accommodate alternative interpretations of the past.

However, Gould (2000: 330-333) does not accept that 'all "pasts" are valid' and takes the view that 'alternative archaeologies' put forward by Hodder, Shanks and Tilley are irrelevant unless they are guided by 'good archaeological science' (see Shanks, M. and Hodder, I., 1998). Gould's view is in context with a discussion on the need for underwater archaeology practitioners not to accept alternative pasts from treasure hunters, although it could be argued that they are not 'alternative archaeologies' and are irrelevant. An issue to come out of this discussion by Gould is the preoccupation of some maritime archaeology practitioners with material remains, and which has been influenced by the need to combat treasure hunting, rather than in pursuing theoretical aspects in Underwater Cultural Heritage Management (UCHM). An appreciation of alternative pasts in relation to Chuuk Lagoon's submerged WWII sites is crucial in understanding their different values and in considering what may be an effective management regime. What currently dominates the management of the sites is one view and one value, even though there may be other important values and interpretations.

It is interesting that Gould used the Chuuk shipwrecks as an introduction to his paper and in summing-up the seminar on *Shipwreck Anthropology*. While not specifically addressing the Chuuk shipwrecks, a number of examples were provided in the seminar as to how they could be studied to provide an explanation of human behaviour using explicit research designs to test an hypothesis—the hypothetico-deductive approach. Gould also alluded to some work by the U.S.NPS in Chuuk, which is discussed later in this chapter (Carrell 1991). On the last and most detailed investigation, they found site management to be a major concern (Lenihan 1992). This issue was and still is of primary importance in the ongoing preservation of a group of shipwrecks that are unique. But no mention was made in *Shipwreck Anthropology* about the theoretical frameworks used in UCHM, nor is it found in Gould's (2000) later work. Lenihan (1983: 37-64) notes a number of 'CRM-inspired' shipwreck research projects have been implemented on the east coast of the U.S., utilising archaeological and anthropological theories and guided by 'research designs and a strong sensitivity for the fragile, nonrenewable nature of the resource'. In 1980, U.S.NPS established the Submerged Cultural Resources Unit (SCRU, now SRU), and since then UCHM using the CRM framework has become the dominant framework used by a number of different federal and state agencies (Aubry 1992; Lenihan and Murphy 1998; Street 2006; Varmer and Blanco 1999).

Tom King (2004: 258-262) a prominent author and practitioner of CRM, has a contentious point of view regarding the management of shipwrecks. He describes shipwrecks as a 'pretty neat kind of cultural resource' and espouses their commercial salvage. King (2004: 259-261) is of the view that

the U.S. *Abandoned Shipwrecks Act* (ASA) provides flexibility and could allow for commercial salvage whereas the UNESCO *Convention on the Protection of the Underwater Cultural Heritage* would not, and he suggests that this is a reason why the U.S. has not ratified it.¹ Street (2006: 477) in his discussion on the management of underwater cultural heritage in the U.S. outlines a number of issues with regard to the conflict between archaeologists and commercial salvors, including the need to define the meaning of abandonment in the ASA to close a major loophole in site protection, as well as the judiciary's contentious decisions in favour of commercial shipwreck salvors. Kaoru and Hoagland (1994: 196) provide a further CRM related view of shipwrecks and suggest an assessment of 'nonmarket economic values' of shipwrecks which could be used as a comparison with commercial salvage options, and resolve conflicts in shipwreck management. These examples are indicative of how economics and combating commercial salvage / treasure hunting still dominates the thinking of U.S. maritime archaeology practitioners, academics and bureaucrats as compared to discussing other issues such as UCHM theory and practice. It is also indicative of how some see underwater cultural heritage sites as a resource and not as heritage.

Underwater Cultural Heritage Management

King (2004: 8-9) is of the view that the management of shipwrecks in the U.S. uses CRM processes. In Australia they also fall under the umbrella of CRM (Green 2004: 369-389; Henderson (1986: 166), although the CHM process is also used, given 'cultural resources ... tend to exclude intangible heritage, and the heritage that belongs to the Indigenous communities' (Anderson et al. 2006: 138). I am sure King (2004: 9-10) would strongly disagree with this view given his definitions of cultural resources, which include 'religious practices ... religious beliefs ... living people with deep knowledge of history and culture'. While there has been a shift by some in what CRM encapsulates, there remain some fundamental differences in the concept and management of 'resources' and 'heritage' (Smith 2004: 6, 95-97). Both processes have, and continue to use similar archaeological approaches and methods in many cases and I consider that it is the research design, scientific objective process that still dominates much of UCHM in Australia and the U.S. But is this the most applicable framework for managing Chuuk's submerged WWII sites? Is it the most appropriate approach in understanding past and contemporary societies' values of the sites? Any form of heritage management must have a social approach as it is an activity that involves people and is implemented for their benefit. As Gould (1997: 377-380) has observed, anthropology after

¹ The wording of the UNESCO Convention on the Protection of the Underwater Cultural Heritage was agreed upon in 2001 and it needs 20 countries to ratify it before it comes into force. As at August 2007, 15 countries have ratified it.

the 1920s was being 'redirected toward explaining the operation and functioning of cultures for the present'. Given contemporary societies are the focus of this research, I wanted to investigate which theoretical approach would be best suited to guide this research and in doing so, I examine the theoretical approaches and processes used in CRM and CHM.

Many definitions can be found for CRM and CHM. Smith (2004: 1) defines CRM as 'the process and procedures, often underpinned by public policy and legislation, used to protect, preserve and/or conserve cultural heritage items, sites, places and monuments'.² King (2004: 8-13) is not as explicit and concludes that while it 'ought to embrace all kinds of resources, and all kinds of impacts on them', including the physical and nonmaterial world, CRM is mostly used by archaeologists in managing historic places of archaeological and historical interest according to certain laws. He refers to CRM as an invention of archaeologists 'to equate what they did with natural resource management' (King 2004: 8). Archaeology therefore has developed a special place in the implementation of CRM, particularly with the development of 'New Archaeology' (processual archaeology) in the 1960s (Binford 1962; Binford 1988: 107; Smith 2004: 2). Archaeology was a fundamental practice in the salvage and rescue of historic sites in the U.S. in the 1950s and 1960s under federal law which led to the proclamation of the *Archaeological and Historic Preservation Act* 1974 and the emergence of 'CRM archaeology' (Green and Doershuk 1998: 123). Legislation protecting historic and indigenous sites spread around the world in the 1960s and 1970s and with them, the CRM process with its objective and scientific archaeological discourse, in a similar manner and in some cases collaboratively as the process in managing natural resources developed (King 2004: 25; Smith 2004: 5).³ Site databases were developed and processual archaeology utilising scientific principles and practices assessed which sites were of value and should be conserved (Smith 2004: 41). CRM practitioners, government policy makers and archaeologists in assessing the value of, and protecting cultural heritage sites were influencing 'concepts and notions of cultural, social or historical identity, such as a sense of place, community or belonging' (Smith 2004: 2). Archaeologists became to be seen as 'stewards of the past' and as objective and scientific custodians of 'universal culture' and as the only ones with the knowledge and power to convince

² Harrison (2005) reviewed Smith's work in *Archaeology in Oceania* and concluded: 'Smith builds on a series of arguments which she has been developing in various forms over the past 15 years to produce one of the most intelligent and informed accounts of AHM [Archaeological Heritage Management] which is currently available'. Smith examines critically CRM, CHM and AHM in three countries, the U.S., Australia and the U.K. while King only examines CRM laws and practice in the U.S.

³ 'The discourse of archaeology is a formation of concepts and language which can be deployed in order to make a certain sense of the physical traces of the human past. For better or worse, archaeology is now recognized as the "proper knowledge" of these traces' (Byrne et al. 2003: 62).

governments into adopting credible protection laws and policies (Shanks and McGuire 1996: 11-12; Smith 2004: 82).

Smith (2004: 6) argues that on occasions this has brought archaeology, archaeologists and government into conflict with native Americans and indigenous Australians over the management of indigenous heritage sites and perceptions of cultural identity, which has caused archaeology to 'occupy a privileged position'. Controlled access to some sites and databases by stewards of the past, and the emphasis on discovering universal laws in the absence of any cultural or historical perspective worked to alienate Indigenous peoples (Trigger 1980: 669-670). What were seen as important cultural sites, important in the cultural identity of indigenous people, were referred to by archaeologists and CRM practitioners as archaeological resources. This has led some countries such as Australia to use the term Cultural Heritage Management (CHM) in place of CRM which acknowledges that particular relationships exist between people, places and practices rather than sites being perceived as resources.⁴ Recent studies in CHM in Australia, the U.K. and Thailand have shown that the scientific archaeological, and bureaucratic processes inherent in CRM, not local narratives or cultural practices, still dominate the CHM process and influence perceptions of local identity (McIntyre-Tamwoy 2000: 229-232; Harrington 2004: 39-43, 321). Other issues such as different interpretations of the past, land claims, reburials, repatriations, site registration and conservation, tax rebates for conservation, and tourism have contributed to politicizing CHM, CRM and archaeology and widened the conflict to include developers, community individuals and groups. As a counter to this dominant discourse and conflict, Byrne (1993), Greer (1996), Harrington (2004), McIntyre-Tamwoy (2000) and Smith (2004) all argue for a less scientific and bureaucratic approach and for a more socially inclusive and subjective approach to what is heritage and its management—a post-processual approach.

An investigation of these studies has been useful in illustrating the current dominant theory and practice of CRM and CHM as being a tool of government (bureaucratic stewards) using objective and scientific archaeological theory (processual theory—socially and culturally exclusive) to assess the value and management of heritage sites. These sites can help to reflect a national identity that may be in conflict with communities and ethnic groups, their cultural practices and how they view their cultural identity. In this heritage management orientated research topic on the Chuuk Lagoon

⁴ Other countries also do not use the term CRM, such as in Sri Lanka, where they do not regard their cultural heritage sites as a 'resource' which implies it could be bought and sold (Bandaranayaka, Professor 2006 pers.comm.). In the U.S. many state and federal agencies implement a historic preservation program, considered to be 'only one part of CRM' (King 2004: 14).

submerged WWII sites, I investigate all the known values inherent in the sites—being Chuukese, Japanese and American. And rather than investigate the material evidence of the shipwrecks to provide generalisations about past and present human behaviour, I investigate the associated meanings and conflicts of the submerged WWII sites to contemporary Chuukese, Japanese and Americans in a post-colonial context. While a CRM framework using processual theory was not suitable for this investigation, post-processual frameworks were. This is further discussed in the following sections.

Culture history approach

The culture history approach developed during Europe's preoccupation in the late nineteenth and early twentieth centuries with issues of nationalism and the lack of evolutionary theory in identifying particular cultures and histories from its material culture (Trigger 2006: 209-210). The culture history approach or historical particularism developed in archaeology where the material culture was excavated, catalogued, analyzed and reconstructed to describe the histories of past societies (Smith 2004: 36-37).

In maritime archaeology the greatest exponent of the culture history approach has been George Bass and his work in the Mediterranean which he commenced in the 1960s (Bass 1983; Bass 1987). Bass was the first to use terrestrial archaeological techniques underwater and he implemented comprehensive excavations and research to analyse artefact assemblages and reconstruct hull remains (Katzev 1972: 50-64; Gibbins and Adams 2001: 285). Further examples of the culture history approach can be seen in the excavations conducted during the 1960s, 1970s and 1980s of the *Vasa* (Kvarning 1997), *Batavia* (Green 1975) and *Mary Rose* (Rule 1982) respectively, where extensive artefact assemblages have been recovered, conserved and analyzed and are now on display in museums in Sweden, Australia and England (Figure 3.1).



Figure 3.1: The remains of Batavia hull and part of the vessel's cargo, the stone portico, now on display at the Western Australian Shipwreck Museum (Photograph by Bill Jeffery, 2005).

In Australian maritime archaeology, Oxford graduate Jeremy Green implemented the first, and still the most extensive excavation of a shipwreck, using a culture history approach and employing a scientific methodology, beginning in 1972. Further work in maritime archaeology developed the use of research designs and scientific objectivity in combination with historical research on artefact assemblages and their social contexts, of which some has been hypothesis driven (Henderson and Stanbury 1988), and some has not (Gesner and Campbell 2000). The influence in much of this work has been government needs to fill museum display cases (McCarthy 2006: 9). Gibbins and Adams (2001: 285) made similar conclusions about the maritime archaeological work implemented in Europe up until and during the 1990s, stating that it has used 'an uncompromisingly historiographic framework seeking to elucidate historical events and trajectories'.

In this study, a culture history approach to Chuuk Lagoon's submerged WWII sites would provide some interesting information on a range of topics including the operations of the war in Chuuk, Japanese shipping and American strategies. But on its own as a guiding framework it would not address the different values of the sites. But the use of historical documents, submerged WWII site and ethnographic surveys to provide information on historic events and the groups involved, in association with other theories, are very relevant and valuable aspects in this study.

Processual theory

In the 1960s processual theory or processual archaeology developed in the U.S. in response to the disillusionment of a number of archaeologists with the culture history approach (Trigger 2006: 386). Binford (1962) called for the explicit use of theory and hypothetico-deductive methodologies, to explain human behaviour and cultural processes, which would lead to the establishment of universal laws of human behaviour. He urged archaeologists to ‘shoulder their full share of responsibility within anthropology’ (Binford 1962: 224). He also made the point that archaeologists need to devise the means to extract socio-cultural information from the archaeological record as he considered most of these components can be found there (Binford 1962: 219). The relevance of processual archaeology to cultural issues, to different communities, to the use of scientific rigour, and to an alignment with anthropology also gave archaeology credibility in the U.S. where government agencies were involved in the management of indigenous sites (Smith 2004: 36). However, due to its objective and scientific methodology and its independent testing of theories, processual archaeology did not engage with social science concepts and was unable to recognize credible cultural processes or formulate law-like theories (Hodder and Hutson 2003: 217; Smith 2004: 37).

A processual approach influenced by the ecological prehistory of Grahame Clark and the use of modern scientific practices was introduced in Australia in the 1960s when a number of ‘Cambridge-trained’ archaeologists initiated some of the first systematic archaeological investigations, resulting in some revolutionary analysis of Aboriginal stone tools (Murray and White 1981: 257; Trigger 2006: 206). Processual theory underpins much of the archaeology carried out in America, Britain and Australia today and installs archaeologists with a sense of authority. This can be both positive, where they hold the archaeological record in public trust, and negative, where access to the archaeological record (and to what it can provide) is restricted (Smith 2004: 82). It provides archaeologists with knowledge and power to make decisions over other voices.

In maritime archaeology, Gibbins and Adams (2001: 284) single out Keith Muckelroy as someone who was influenced by processual archaeology and whose book *Maritime Archaeology* (Muckelroy 1978) is seen as a watershed in method and theory, which developed into research termed the ‘maritime middle-range’. Binford (1977) is credited with introducing ‘middle range theory’ as a way of bridging the gap between static archaeological records and explaining the associated cultural behaviour, from which developed the concept and use of site formation processes as a way of explaining cultural behaviour (Murphy 1997: 386-388; Raab and Goodyear 1998: 215-216). A

small number of practitioners and their maritime archaeological investigations have applied this theory (Lenihan 1983: 37-64; Muckelroy 1978; Murphy 1983: 65-89, 1991). Gibbs (2006: 18) however noted the shortcomings of site-formation research in maritime archaeology, essentially being ‘environmentally’ focused and he put forward a shipwreck disaster-response model to help ‘understand and generalize about the cultural behaviour surrounding shipwrecks’. Gibbins and Adams (2001: 285) also considered the limitations of processualism in maritime archaeology, noting that ‘few major wreck investigations were explicitly “driven” by hypothesis-testing in the language of anthropology’.

In some recent cases in Australia, excavation and analysis has been in part driven by an investigation into a number of social research issues, using a processual approach (Veth 2006: 13-26). Richards (2002: 49) in his investigation of abandoned watercraft in Australia used a processual approach and makes a case for this approach in studying abandoned watercraft in cultural heritage management. He argues that the ‘significance of discarded watercraft’ must be analyzed through looking at their ongoing use—the cultural process—and not just in a site specific manner as seen through the culture history approach (Richards 2002: 384-385). McCarthy excavated and examined the remains of a 19th century steamship *Xantho* and considered the archaeological evidence within a processual theoretical framework to explain the behaviour of its owner Charles Broadhurst (McCarthy 2000; Veth 2006: 21-22; Veth and McCarthy 1999: 12-15). Staniforth, using a post-processual approach and the framework of the *Annales* school of history investigated cargo (primarily ceramic wares) from a number of Australian shipwrecks to provide different social and cultural meanings of the objects in the new Australian colony (Staniforth 2003; Veth 2006: 19). This leads to the discussion of post-processual theory.

Post-processual theory

Post-processualism has been defined as all ‘critical theories that in some sense come “after” processualism’ and as a reaction and rejection to the scientific positivism, objectivity and lack of social discourses in processual theory (Smith 2004: 44). It is also described as interpretive archaeology where the archaeologist is the ‘translator, guide or go-between’ and who takes a subjective approach in understanding and interpreting the meanings of things (Shanks and Hodder 1998: 70-71). Increasing conflict over the meaning of heritage and the need for a democratic discussion, particularly with marginalized voices was required, and taken on within post-processualism. Hodder and Hutson (2003: 235) maintain that while ‘archaeology is archaeology, it is strongest when most broadly networked with other disciplines and most relevant when

interwoven with social issues' including current politics. They conclude that post-processual archaeology is about engaging with social theories and groups (Hodder and Hutson 2003: 207). Trigger (2006: 444, 455) credits Hodder as providing the post-processual archaeology label and describes Hodder's research in Africa which refuted processual archaeological assumptions that 'material culture invariably reflects social organization', and warned of the 'dangers inherent in all interpretations of archaeological evidence analysed in isolation from its broader cultural context'.

Smith (2004: 55) also points out some failures, stating that post-processual theory arose because of the criticisms of marginalized voices, but 'has reinforced the authority of archaeological knowledge and discourse'. It was in this context that I considered it important to acquire emic as well as etic knowledge in my study, as well as to interpret and use this information, but not from a position of power.⁵

Gibbins and Adams (2001: 286) make similar comments about the inclusiveness of post-processualism, where it 'involves the use of comparative materials drawn from a wide variety of disciplines and intellectual traditions rather than from a single theoretical dogma'. One of the few studies in Australia using this approach can be seen in McCarthy and Silvester (2000: 133) in their *Australian Contact Shipwrecks Program*. They advocated for 'more broad-reaching studies by historians, archaeologists, anthropologists, regional Aboriginal academics and historians'. Jeffery (2001: 29-38) in his work on Aboriginal-European contact in the Coroong in South Australia added, 'Whatever contact studies are conducted, they need to consider questions, issues, sites and beliefs of both cultures to help explain the contact and the effects it had, and perhaps continue to have'. Stewart (2007: 113) uses a post-processual approach in investigating the belief systems and social relations associated with 412 maritime related gravestones and memorials as part of the maritime cultural landscape of the U.K. and the U.S. He concludes that memorials and their use complement existing research into social 'power relations' and 'advances the maritime cultural landscape approach's goal of examining maritime life within its wider cultural context' (Stewart 2007: 123). Flatman (2003: 145-147) provides a broader perspective on the application of theory in maritime archaeology, from an engendered maritime archaeology to a Marxist perspective that would consider 'understanding the different needs of different groups within society as regards archaeology' within the contemporary context. There are a number of perspectives that are

⁵ Some of the first anthropological studies using emic knowledge were implemented by George Murdock's Coordinated Investigation of Micronesian Anthropology (CIMA) team in Chuuk in Micronesia in the late 1940s (Kiste 1999: 469).

highlighted in Flatman's paper that demonstrate the vitality and relevance of maritime archaeology investigations to many different past and contemporary social groups using alternative and post-processual approaches, including the way in which the state has used maritime archaeology as a source of power / knowledge for its own political aims. This latter point is illustrated through the work of Fowler (1987: 230), where he found 'official' archaeological interpretations of sites in Mexico, Great Britain, China, Israel and the U.S. being used in legitimizing power and national ideologies.

An investigation of landscape research also reveals some parallels to the present study. Australian maritime archaeologists have been discussing ideas of a maritime cultural landscape, inclusive of tangible and intangible land and sea remains and memories since the early 1990s but not within any theoretical framework (Jeffery 1990; Kenderdine 1992). Westerdahl (1992: 5) proposed the use of the maritime cultural landscapes concept to provide broader interpretations of maritime cultures. In discussing the war landscape of the western front, Saunders (2001: 50-52) highlights the contested nature of war landscapes, and how the many pilgrims, tourists, landowners and heritage bureaucrats see different values in landscape that highlight different associations and meanings, some of which are more dominant than others. My approach in studying the Chuuk Lagoon submerged WWII sites is also not unlike that used by Bender (1998) in studying Stonehenge, as a contested contemporary icon. Bender (1998: 6) uses a phenomenological approach to study the multi-vocality, and contemporaneous nature of the Stonehenge landscape, and how this 'permits questions about heritage and identity, allows people to place themselves, explores the social, cultural, economic and political relationships within which people's experiences of the world are embedded, and posits many ways of engaging, imagining, and contesting'.

The major aim of this research is to investigate whether the values of the submerged WWII sites and the current management practices that have arisen, are a legacy of colonialism and neo-colonialism. I want to use this study to see what it can suggest about present communities, and to demonstrate that by using this type of framework a different approach to UCHM is possible. This is a departure from many maritime heritage studies where the culture history approach and / or the processual archaeological approach have been used to guide research into shipwrecks and maritime artefacts. It is a different approach from other Australian academic studies on maritime material culture as it includes contemporary issues and people and what impact this has had on historic cultural material of a maritime origin. This will demonstrate that post-processual approaches allow other forms of understanding of maritime archaeological material.

While Smith (2004) has outlined some short-comings of the post-processual approach, I consider it to be the most relevant approach and framework for this research. It not only allows for, but requires community input, alternative views, a subjective inclusive approach as well as social theories to be explored and included in the research. It also includes the acquisition and interpretation of etic knowledge which I have included in Chapters 7 and 8. The social theory that I now want to explore is post-colonial theory.

Post-colonialism

Although historians initially used the term post-colonial as having chronological meanings related to the post World War period and the post-independence movement, it became a term that was used by literary critics to discuss the various impacts of colonization (Ashcroft et al. 1998: 186). French theorists Derrida and Foucault in their analysis of discourse, power and knowledge, 'have been used by people such as Edward Said, Gayatri Spivak and Homi Bhabha to uncover the Eurocentric biases of much First World discussion on colonialism, the nature of global culture and marginality within that culture in the present' (Gosden 1999: 197). In *Orientalism*, Said (1978) maintained a basic premise that 'the west has created and maintained a simplified, clichéd and essentialised view of the east through much of its history' which concluded that the east was inferior and backward as compared to the west's view of itself as democratic and progressive (Gosden 1999: 198). Much of the study into post-colonialism has been in investigating colonial texts but it can be seen in other areas such as in educational studies (Philips 1992), tourism (Biddlecomb 1981; Rajotte 1980; Tanirono 1980), material culture (Thomas 1991, 1994) and archaeology (Gosden 1999, 2004). Thomas (1994: 1) has considered, 'to what extent did disciplines such as anthropology and development economics inform and legitimize the colonial projects of Western governments?' to which Hanlon (1999: 69) noted in regard to Chuuk, and Micronesia in general, 'the CIMA [Coordinated Investigation of Micronesian Anthropology in 1947] project, like the USCC [United States Commercial Company] survey, was commissioned to support military rule in the islands'. Goodenough (1951: 12) is of a similar view. Hanlon (1999: 70-71) is also of the view that many of the histories compiled through the CIMA program were histories of colonialism, which excluded islanders, and where local people were not seen as actors in making their own history.

Many post-colonial investigations and theories have come out of the work of Foucault, Said, Spivak and Bhabha, along with many descriptions of colonialism. Colonialism includes many things: the political ideologies which sanctioned the invasion; occupation and exploitation of inhabited lands;

and a way of maintaining unequal relations of economic and political power employing social, cultural and religious means of control. The study and analysis of post-colonialism used in this study attempts to capture some of the impacts of colonialism, including the social, political, economic and cultural practices which have arisen in response and resistance to colonialism and neo-colonialism (Ashcroft et al. 1998: 187).⁶ Neo-colonialism refers to the control of former colonies and is used in connection with the super powers such as the U.S. where their development, monetary, educational and cultural programs are a significant factor in the future of some countries (Ashcroft et al. 1998: 162-163). The colonizers' use of power, knowledge and the narrative—the discourse—in the subjugation of the colonized and its justification with the rest of the world, is the focus for many post-colonial studies. Gosden (2004: 19-20) highlights how 'subaltern studies' focus more on the 'conditions of people', than on 'forms of discourse'. Colonialism is a complex and developing focus of study and one that Gosden (2004: 20) maintains still influences how we actually view and study colonialism.

The Chuuk Lagoon submerged WWII sites exist because Japan, a former colonial power in Chuuk used the locality as a major war-time base that was attacked by the U.S, a subsequent colonial power in Chuuk. Today, the ships that were sunk by the U.S. are seen as an economic resource to the Chuukese and as war graves to the Japanese. To the Americans, they represent a great success in the war campaign, and as pay-back for Pearl Harbor (*Naval Aviation News* Number 25, October 1, 1945). These values can be seen today in Japanese and U.S. memorials against the lack of any Chuukese memorials, and in the values and activities associated with the sites. My contention is that the conflicts arising from these values and activities are related to past colonialism and continue to be influenced by neo-colonialism. They stand as a reminder to many Chuukese of their colonial past, and they are not valued as the Japanese and U.S. value them.

I have been conscious of the need to investigate local histories and local values associated with the submerged WWII sites. This type of approach was also thought to be the most valid with regard to investigating a post-colonial discourse of the Chuukese, and complements Thomas (1994: ix) in the need for local histories and local examples of colonialism and its resistance. However Gosden (2004: 20) concludes that it is best to use a comparative framework suggesting that nothing can be understood on its own. Throughout this study, the major focus is on how Chuuk (and to some extent other states of the FSM) have been impacted by foreign colonial powers and how Chuukese

⁶ <http://www.sou.edu/English/IDTC/Issues/postcol/Resources/Terry/dehay.htm> accessed 4 June 2004.

appropriated aspects of these powers for their own use, but some comparative examples are used to critique my arguments (Delgado et al. 1991; Ballard 1993; Lenihan 2001). Gosden (2004: 20) stresses the need to examine material remains in the post-colonial discourse: 'The stress on discourses of power and knowledge exclude the material world too much. It is the values attached to things and the manner in which these values can be remade across the colonial encounter that is crucial to many forms of colonialism. Material things are the basis of much local strategy and the subtlety of strategies can only be understood in a material context'. Although the material things Gosden refers to are quite different to the submerged WWII sites and artefacts, I believe the manner in which this material has been reinterpreted for the Chuukese by Americans and foreigners as sites to be salvaged, as sites for diving tourists, and as sites requiring legal protection which, coupled with the values forced on the Chuukese, is a valid form of colonialism and a valid topic of post-colonial study.

What is heritage?

I examine concepts of heritage and heritage value to help place in context the investigation of the different site values and conflicts of the submerged World War II sites. In *Uses of Heritage*, Smith (2006: 11) concludes that heritage is not so much a physical entity but a set of values and meanings and 'ultimately a cultural practice'. She argues that sites or tangible remains help to facilitate this practice, although they are not essential. Heritage is about 'acquiring or engaging with a sense of history' and is recognized as actions or practice rather than as just static sites (Smith 2006: 45). A number of other texts support this concept. For example, Greer (1996: v) in investigating heritage and its use in the construction of identity utilized a community-based approach, and found that archaeological sites can be 'theatrical props and mnemonic devices which invoke memories', contemporary cultural practices, and cultural identity. Heritage is seen as a number of cultural elements inherited by individuals and groups of people, and not as sites placed in a temporal framework by a scientific discourse (Greer 1996: 233). Heritage can provide a 'sense of place', an association with the tangible and intangible aspects of heritage, including a 'sense of belonging', and of 'our place' in the community and with other nations (Smith 2006: 75). Heritage is therefore many things: it is a cultural practice; it is memory making; it informs cultural identity; and it can provide groups with a standing in society. The view that individuals and communities use material remains to help construct and maintain individual, group or cultural identities is further emphasized by Harvey (2001: 332). In a Pacific Island context, heritage can be expressed in creative expressions as well as in the 'total way of life' (Crocombe 1994: 23), to which Lindstrom and White (1994: 9) add that as cultural practices they can change as they are lived. It combines the

areas of culture, customs and traditions and it is these aspects to which I refer, when I use the term ‘cultural practices’.⁷ As was discussed in Chapters 2, Chuukese have spiritual and customary associations with whole and parts of islands, which are part of their cultural identity and inform a sense of place. Tangible remains, in association with stories and metaphors from *itang*, are an important part of being Chuukese, in addition to the dynamic cultural practices that are inherent in daily life.

It is also argued that it is the discourse that is important in understanding how people value heritage, which can also reflect a number of issues such as social and power-knowledge relations (Smith 2006: 14-15). Harrington (2004: 36-39) argues that there is an expert, scientific discourse, or what Smith (2006: 11) calls the ‘authorized heritage discourse’ that prioritizes and promotes the grand monuments or the technical wonders as heritage according to expert judgements, and in the process marginalizes social and cultural practices and local heritage. An example of this can be seen in Byrne (1993: 212-213) where ‘conflict arose between heritage managers and a group of Western Australian aboriginals who wanted to paint over some rock paintings’. The heritage managers saw this as damaging the unique works or art but to the aboriginal group, this was the ‘periodic practice of ritually repainting Wandjina spirit-beings’. It was ‘the spiritual essence of the place occupied by the physical remains’ that was important, not just the fabric (Byrne 1993: 212). Smith also uses a number of examples to illustrate the differences between the ‘authorized heritage discourse’ and what people see as heritage. This included aboriginal women in Queensland using sites as ‘background and a sense of occasion to pass on and receive cultural meaning, knowledge and memories’ (Smith 2006: 46). Greer (1996: 231-241) expanded on this concept where she emphasized the need for heritage to focus on cultural practice rather than the fabric, which enables heritage to be seen as dynamic. Other examples of community views on heritage include the results of a U.K. museum visitor survey which showed that people wanted to experience how people lived, and experience their sense of place (Smith 2006: 216), and at Castleford, where the community are working toward other meanings of heritage outside the ‘authorized heritage discourse’ and who wish to express their own cultural identity (Smith 2006: 247).

⁷ Lindstrom and White (1994: 3-5) in the book on *Culture-Kastom[Custom]-Tradition* provide a Pacific view on these aspects: culture—‘a system of more-or-less shared, more-or-less conscious, knowledge and understanding by which people organize how they live together’ and ‘it is possible to change one’s culture’ such as changes in language. ‘Kastom’ or Custom is ‘all conspicuous cultural forms and practices that people talk about and incorporate into their sense of identity.’ Tradition—‘the large subset of custom that is tagged explicitly as handed down from the past.’ Colonial views of custom have looked more at ‘religion, warfare, kinship’ to the exclusion of ‘practices of socialization and teaching.’ Gegeo (in Lindstrom and White 1994: 43-54) characterizes custom ‘as lacking rigid boundaries’, and ‘at the heart of kastom is life as it is lived every day...[and a] constant reworking of knowledge and ways of thinking’

The next concept of heritage I want to investigate is from the perspective of the legal documents that define and codify heritage. In association with the development of CRM in the U.S. during the 1950s and 1960s, protective legislation was enacted. While the U.S. *National Historic Preservation Act of 1966* does not define heritage, it is interpreted to be associated with designated prehistoric or historic districts, sites, buildings, structures and objects that meet certain criteria and important traditional religious and cultural properties (King 2006; U.S. NPS 2001). The Federated States of Micronesia (FSM) Code, Title 26, *Historical Sites and Antiquities* legislation records that: ‘It is the policy of the Federated States of Micronesia to protect and preserve the diverse cultural heritage of the peoples of Micronesia’ and includes tangible and intangible forms in their definitions of ‘cultural attribute’, ‘historic property’ and ‘historical artifacts’. In comparison, the *Burra Charter* defines cultural heritage as pertaining to the ‘aesthetic, historic, scientific or social value’ of a place and is indicative of cultural practices (Australia ICOMOS 2000: 12). From a global perspective, the *World Heritage Convention 1972* uses a number of criteria in defining what types of sites are eligible to be placed on the UNESCO World Heritage List (WHL), and in terms of cultural heritage sites they can include monuments, groups of buildings or sites which are of ‘outstanding universal value’.⁸ This convention also lists cultural landscapes, being the ‘combined works of nature and of man’. In the context with submerged WWII sites, the UNESCO *Convention on the Protection of the Underwater Cultural Heritage 2001* records: “‘Underwater cultural heritage’ means all traces of human existence having a cultural, historical or archaeological character which have been partially or totally under water, periodically or continuously, for at least 100 years’.

The FSM heritage discourse includes both tangible and intangible heritage, as does to a certain extent the U.S. legislation. However, the U.S. legislation, including the other legal instruments not cited, tend to focus on the tangible aspects of heritage, such as buildings, sites and structures, which must satisfy certain criteria before they are protected. Further work has been carried out in the area of intangible heritage at an international level. In 2003, UNESCO adopted the *Convention for the Safeguarding of the Intangible Cultural Heritage 2003*, defining “‘intangible cultural heritage’ as being the practices, representations, expressions, knowledge, skills—as well as the instruments, objects, artefacts and cultural spaces associated therewith—that communities, groups, and in some cases, individuals recognize as part of their cultural heritage’.

⁸ World Heritage Convention text <http://whc.unesco.org/en/conventiontext/> accessed 12 June 2007.

As a comparison, both the 2007 Oxford and Webster dictionaries (and those of the 1980s) define heritage as something that is 'inherited', being the origin of the word, 'heritage'. The Webster dictionary includes the concept of immaterial possessions being inherited.⁹ These are interesting in that they highlight the paradox with the major CRM and CHM discourses, illustrating that heritage has become a political and bureaucratic process of assessing and protecting which material remains will be inherited rather than a cultural practice (Australia ICOMOS 2000; U.S. *National Historic Preservation Act of 1966 cited in King 2004: 13; WHC 1972*). Obviously this does not exclude individuals, families and larger groups from inheriting all material and non-material remains, but what it does is recognize certain material remains as 'national heritage', which is often seen as a reflection of national identity. As these Euro-American dominated approaches permeate into other parts of the world, this approach to heritage is being disseminated through government bureaucratic programs. The result is that legislation, and the associated programs and guidelines, promote and privilege material remains as a major focus in the identities of groups, states, nations and the international community (Smith 2006: 48). It follows that those who assess the material remains and formulate the decisions about what constitute heritage and national identity tend to be heritage professionals working or associated with government, bureaucrats and politicians (Jeffery and Moran 2001: 121-127; Smith 2006: 29). This results in a Euro-American, bureaucratic, hegemonic view that dominates many nations and in so doing 'ignores a diversity of sub-national cultural and social experiences' (Smith 2006: 30).

Discourses about cultural heritage, particularly at the international level include the concept of a 'universal heritage' inherited by all people (WHC 1972). This appears (by definition) to exclude ethnicity and the many forms of cultural heritage that this evokes at the local level. A focus on material remains or tangible heritage remains ignores the fact that to many ethnic groups, material remains are secondary and in some cases, perhaps irrelevant. This cultural hegemony which places greater importance on material culture and an inheritance of all cultural remains by the international community takes its direction from globalization. This interpretation places pressure on some groups to value, and therefore manage (often through a CRM program), that which may be irrelevant to them. This study investigates if the dominant hegemonic view of the Chuuk Lagoon submerged WWII sites as 'heritage sites' is working in practice or if other discourses are more appropriate in relation to the management of these sites.

⁹ www.websters-online-dictionary.org accessed 8 May 2007.

There are many other views about what is heritage and it is not my intention to provide more than these few already mentioned in order to outline the current hegemonic heritage discourses and the potential conflicts that they can produce. A final relevant view can be found in Graham (2002: 1004) where he defines heritage as ‘the contemporary use of the past, and if its meanings are defined in the present, then we create the heritage that we require and manage it for a range of purposes defined by the needs of our present societies’. Graham (2002: 1004-1006) also makes mention of Bourdieu’s ‘cultural capital’ in which a country creates a national identity in support of its own ideologies and which National Registers, and the World Heritage List at an international perspective seem to portray. He also admits heritage can be interpreted in many different ways in the one culture and across time, pointing out that all societies contain both tangible and intangible heritage (Graham 2002: 1004). It can therefore be seen as knowledge and a resource for contemporary societies—a cultural, political and economic resource—that can be ‘accompanied by a complex and often conflicting array of identifications and potential conflicts’ (Graham 2002: 1006).

Heritage values

Eiss and Pedersen (2002: 283) state that ‘value is about measure or meaning; it is material or symbolic, secular or sacred, abstract or concrete, individual or collective, qualitative or quantitative, global or local. To inquire into value often has meant to choose between focusing on social relations or objects, the makeup of persons or of politics, systems of meaning or patterns of action’. The authors of the introductory article, ‘Values of value’ in the journal *Cultural Anthropology*, which contains a number of different articles on value as a theoretical concept and mode of analysis, conclude that these investigations have led to the use of the concept of value to explore differences and to interpret societies. ‘The authors use value analysis to move across temporal boundaries, showing history to be critical to an understanding of the present and its possible futures’ (Eiss and Pedersen 2002: 287). It is in this context that I have investigated the different values of the submerged WWII sites, the meaning of the sites, the sense of place as experienced by Americans, Japanese and Chuukese and what this provides in understanding present communities, particularly the Chuukese. To do this, I explore in more detail the concept of heritage value, and the types of tangible and intangible heritage appropriate to the three different groups, and how this relates to the submerged WWII sites.

The 2006 summer edition of *CRM: The Journal of Heritage Stewardship* contains two articles related to heritage values (Mason 2006; Spennemann 2006) which are pertinent to this study. While

Mason (2006: 22) refers to the use of different values in heritage management as dating back to the Athens Charter of 1931, he notes its use in U.S. historic preservation programs as a recent phenomenon.¹⁰ It is also only a recent occurrence in Australia where the value-based approach was included in the 1999 version of the *Burra Charter* and in the recently developed Australian *Environment and Heritage Legislation Amendment Act (No. 1) 2003* which is an amendment to the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). This act prioritizes value over place: 'It is the national heritage values of a place that will be recorded in the National Heritage list and it is these values, and not necessarily the entire place itself, that will be protected through listing.'¹¹ Mason (2006: 31-33) also makes a case for 'values-centered' historic preservation rather than just considering the quality of the fabric, arguing also that 'for historic preservation to truly account for site values holistically, economic values must be included'. He notes the conflicts that accompany economic and heritage value-based schemes in heritage and the reluctance of some processes to include it. The *Burra Charter* for instance excludes economic value, and considers it secondary to the heritage value of a place (Mason 2006: 36). This disparity between culture and economics is not reflected in some Pacific Island societies, where exchanges, a tribute or a gift are an important aspect in traditional cultural practices and can be found in a number of existing sites and objects, and in their preservation (Roe and Taki 1999: 420). As an example, Yapese 'stone money' (*rai*) weighing from a few kilograms to over 2,000 kilograms were quarried and transported by traditional canoes and rafts from Palau over a 600 year period to be used in a number of different social transactions in Yap depending on their size and the associated cultural practices. Even during the latter and more numerous period of importation by European ships (18th and 19th centuries) the *rai* maintained its 'symbol of wealth, status, and power' (Hazell and Fitzpatrick 2006: 13).

Site value-based heritage assessment can invite conflict and dissension as it is often subjective. But do we need to reconcile the conflicts that reflect the way that various groups value sites? These can inform a broader discussion about sites, about the communities in general and help in more effective or different management. Mason found these conflicts valuable in two cases highlighted in his article, as it led to non-traditional preservation practices. He concluded: 'As heritage professionals, we, of course, see these places for their heritage value. Many other people do not sense this value. Understanding the ways these places are valued for non-heritage reasons has been essential to connecting our arguments for preservation to other, non-heritage plans for the place'

¹⁰ The Athens Charter can be accessed at http://www.icomos.org/athens_charter.html accessed 8 May 2007.

¹¹ Accessed online <http://www.deh.gov.au/heritage/national/implications.html> 26 June 2005.

(Mason 2006: 44). This led to the conclusion that heritage, social and other values including economic value, should be used collectively to make historic preservation a more viable part of a site's future and relevant to today's society (Mason 2006: 45). McBryde (1995: 13) has a similar view and argues for a new understanding of different values and their collective application in heritage management, which could lead to the enrichment of the lives of individuals and societies.

Spennemann (2006: 6-20) considers heritage value assessed by communities, its role and conflict with the 'official, professional approach', even when there has been community participation in assessing heritage value by heritage professionals. He used questionnaires to get the views of the silent majority, those that do not attend heritage related workshops or public meetings, but whom, like all taxpayers have a stake in heritage management strategies (Spennemann 2006:12-16). In one such questionnaire, teachers and students from the Commonwealth of the Northern Mariana Islands (CNMI) on the 'relative significance of the various phases and aspects of heritage in CNMI', were asked to rank in importance the 12 different historic periods in CNMI including five traditional types of heritage (dance, crafts, stories, knowledge, plants and animals). The five traditional types of heritage all ranked higher than the colonial periods, with World War II second last and the TTPI historic period last (Spennemann 2006: 15).

Methodology

I began this research topic with many years of bureaucratic and practical experience in maritime archaeology. I had some understanding of the value of the submerged WWII sites from my western perspective but little background and understanding of the history of the Chuukese people, the values they place on the submerged WWII sites, and the issues associated in their management. The post-colonial perspective employing a post-processual theoretical approach is a significant deviation from many other maritime archaeology studies and required a number of multi-disciplinary tasks including the review of different literature. It also required the field surveys of a large number of submerged WWII sites to be more multi-disciplinary with a focus on documenting the range of contemporary values, uses and impacts of a cross section of sites, rather than implementing intensive archaeological surveys. These intensive surveys, concentrating on the Japanese material culture would provide limited data on contemporary Chuukese values and uses. On occasions, some of the field surveys were carried out in association with diving tourists, in order to gain an appreciation of their perspective. Ethnographic research and the collection of oral histories were obtained during terrestrial field surveys or general conversations with a range of Chuukese and visitors to Chuuk. Research into Japanese perspectives was problematic, but I obtained some oral

and literature histories through collaboration with Japanese nationals and people from Chuuk and Pohnpei. I sought and obtained data from two questionnaires (see Appendices 3 and 4). I initiated dialogue with American war survivors through an internet chat site, and I sought communication with diving tourists who had visited Chuuk. This amounted to a considerable and diverse quantity of information that needed to be analysed and extracted.

Literature review

The literature review was implemented at a number of institutions and included the topics, archival documents and collections shown in Table 3.1. In some instances I have cited secondary sources where the primary source (eg. Japanese author, war documents) was difficult to obtain but necessary for my research.

<i>Literature topics</i>	<i>Archival documents and collections</i>	<i>Institutions/Libraries</i>
<i>Chuuk and Pacific Island history</i>	Annual Report of the American Board of Commissioners for Foreign Mission (ABCFM 1923)	James Cook University (JCU), Townsville, Queensland and a number of lending libraries
<i>Chuuk archaeology and anthropology</i>	including 1922 Annual Report of the League of Nations	Australian National University Library, Canberra
<i>Archaeological theory</i>	<i>Japanese Naval and Merchant Shipping Losses. During World War II by all causes</i> (JANAC 1947)	Australian War Memorial Archives, Canberra
<i>World War II in the Pacific from a Japanese, American and Chuukese perspective</i>	U.S. Trust Territory of the Pacific Islands (TTPI) records from 1945-1951	Library of Congress, Washington DC
<i>Colonialism in Micronesia</i>	Joint Intelligence Center Pacific Ocean Areas Bulletins (JICPOA)	National Archives and Records Administration (U.S.) in Washington and San Francisco
<i>The impact of the war on Pacific Islanders</i>	United States Strategic Bombing Surveys (U.S.SBS)	San Francisco Maritime Museum, California
<i>Heritage management and legislation</i>	Japanese Monographs (U.S.N 1952)	National Maritime Museum, Greenwich, London
<i>Tourism in the Pacific Islands</i>	Letters from Australian Flight Officer Lt. Captain Yeowart concerning the first bombing of Chuuk by the Australians	University of Guam, Guam
<i>Maritime archaeology</i>	Japanese war court proceedings	Micronesia Seminar, Pohnpei, FSM
<i>Japanese shipping</i>	Captured and Archival Japanese War Documents, translated by Japanese researchers	Xavier College Library, Chuuk, FSM
<i>Marine sciences</i>	Chuuk photographic and map collections	Historic Preservation Office (HPO)
<i>War aviation</i>	Divers' underwater photographic collections	Libraries in Chuuk, Pohnpei and Yap
	FSM and Chuuk Constitution and other legal documents	Japanese Archives ¹²

Table 3.1: Literature topics, archival sources and institutions researched

¹² http://www.jacar.go.jp/index_e.htm accessed online only, 28 April 2004. All other institutions were visited.

Fieldwork

Fieldwork commenced in October 2001 and was implemented on six separate occasions until the end of August 2007 (5 October 2001 to 20 December 2001; 25 January 2002 to 10 May 2002; and 8 February 2004 to 25 March 2004; 26 June 2006 to 10 August 2006; 10 November 2006 to 13 December 2006; 30 July 2007 to 11 August 2007). A total of about 11 month's fieldwork was undertaken. Some of this time was implemented in association with employment in the Chuuk Historic Preservation Office (HPO), a Chuuk government agency funded by Chuuk state and the U.S. Department of the Interior. My role in Chuuk HPO was to initiate a maritime archaeology program, to develop a database and management plan for the submerged WWII sites and to train staff from Chuuk HPO in documenting these sites (Jeffery 2004c). I also implemented other historic preservation duties, staff training and terrestrial site surveys.

Some of the maritime archaeology work for Chuuk state and the field work required for my PhD dovetailed very well. The Chuuk government had very limited information on the location, nature, extent and condition of the submerged WWII sites. This was the type of information I needed to begin researching the values, uses of, and impacts on the sites. Chuuk HPO had employed two very experienced divers (ex-dive guides for tourists visiting the submerged WWII sites) Arimichy Rudolph and Anerit Mailo and they were of great assistance in the fieldwork. The site surveys in this study, which are expanded in Chapter 8 were used to verify site identity, the nature and condition of the remains, and enabled shipwreck, aircraft and artefact databases to be compiled. They were limited in intensity due to the large and complex nature of the sites and their depth in the water, but site documentation, through the collection of site dimensions, drawings, photographs and site condition reports were obtained.

As part of the work with Chuuk HPO, which also proved to be of assistance in my PhD field work, I successfully applied for funding from the U.S. Historic Preservation Fund to enable a side scan sonar survey to be implemented on many of the sites, providing further location, descriptive and condition information (see Chapter 8 and Jeffery 2004c). I also gained additional funding for Chuuk HPO from the same source for a corrosion survey of the submerged WWII sites and Dr Ian MacLeod, a materials corrosion scientist from the Western Australian Museum assessed their condition, deterioration and longevity (MacLeod 2003, 2005, 2006a, 2006b). MacLeod's work, the first time a corrosion survey had been carried out in Chuuk, was of benefit in this research as it provided additional, multi-disciplinary data on site condition.

A further grant for Chuuk HPO allowed for the production and printing of a tourist orientated booklet and interpretive signs on some aspects of the World War II sites. The interpretive material concentrated on the many terrestrial World War II sites on Tonoas and Weno, and by including the submerged WWII sites it gave a more holistic picture of Chuuk's World War II landscape and an introduction in some different values (Jeffery 2003). This essentially terrestrial-orientated project meant I was able to implement reconnaissance surveys and conduct ethnographic research of the many military facilities on Tonoas (headquarters for the Japanese in Chuuk) and Weno, and I have included some of the outcomes in this study (see Chapter 8).

In 2005, I was successful in an application to the Earthwatch Institute for funding to continue and extend my research in Chuuk which included implementing further archaeological and corrosion surveys, and initiating biological / ecological surveys. This meant collaboration with two other Principal Investigators (PIs), Dr Ian MacLeod, and Maria Beger a marine ecologist from the University of Queensland. While my 2002 and 2004 field work was successful and had provided considerable data to analyze and complete most of my research, I had always been keen to further extend the multi-disciplinary surveys to acquire more holistic (cultural and natural) site values and the health of the sites.¹³ The natural heritage values are a big attraction for diving tourists and they also come under considerable pressure from dynamite fishers, an activity that not only kills the living organisms but has a detrimental effect on the cultural fabric. This combination of the natural and cultural values was seen as an important linkage in any further site investigations. The Earthwatch project entails volunteers assisting PIs to record and analyse the various aspects of the submerged WWII sites for two months a year, commencing in July 2006 and running through to December 2008.¹⁴ The last three periods of my fieldwork for this study were implemented with the two other PIs and Earthwatch volunteers. While I have included some information from the Earthwatch project in this study (see Chapter 8), such as the nature of some flora and fauna and their relationships with metal corrosion, further documentation of site uses and impacts, and documentation of a 'new' shipwreck, much of it remains as work in progress.

¹³ At the commencement of my field work in 2001, I had successfully encouraged a marine biologist (Canadian Mandy Hengeveld who had worked in the Marshall Island) to help in some flora and fauna surveys and although she was awarded a PADI Aware grant (US\$1,100), it was not enough money for her to join me during that year. She deferred her PADI grant and joined me as part of the Earthwatch project in November/December 2006.

¹⁴ The project was planned to commence in 2005 but was delayed a year due to a general election in Chuuk, a change of government, and a government agency re-organisation. Earthwatch Institute, through volunteer contributions is currently sponsoring over 150 scientific/community/environmental projects around the world, see www.earthwatch.org accessed 17 March 2007.

The Earthwatch project is a collaborative one with Chuuk HPO and another Chuuk government agency, the Chuuk Department of Marine Resources which gave an additional opportunity to investigate the values and issues associated with the sites with another representative of the Chuuk government. The project is aimed at documenting the health of the submerged WWII sites, and increasing an awareness of the different values and uses of the sites to assist the Chuuk government in their management strategies. This awareness extends to socio-historic and socio-economic issues. Through the assistance of volunteers and staff from Chuuk, FSM, Australian and U.S. universities and government agencies, the project reports and articles that are produced and contain information on the objectives, methods and outcomes are widely disseminated.

Site Locations

A hand-held 'Garmin' Global Positioning System (GPS) and the 'Arcview' Geographical Information System (GIS) software were used to acquire and display site locations. Using the GPS coordinates of the shipwrecks and the terrestrial sites in conjunction with 'Arcview' GIS program, I compiled all the site maps and plans contained in this study.

I obtained a digital copy of the 'Moen' 1:25,000 map from the U.S. Geological Survey which is the only map used in the site locality figures in Chapter 8 as it contains most of the shipwreck locations around the main lagoon islands of Weno, Tonoas, Fefan, Uman and Etten.¹⁵ There are three other 1:25,000 scale maps in the series that cover Chuuk Lagoon (being Tol, Piis Moen, and Ruo), which are available from the U.S. Geological Survey. The map series for Chuuk Lagoon uses an old datum and map projection which needs to be converted into a more modern map datum / projection, World Geographical Series (WGS) 1984 in order to allow their interaction with the GPS.

The accuracy of the GPS was checked by obtaining the coordinates of a known survey station in Chuuk (adjacent to the weather station near the airport) and this was found to be within one-two metres of what had been surveyed by the U.S. Geological Survey. This verified the accuracy of the GPS unit, and therefore the accuracy of the 'Moen' map could be ascertained. After converting the map into WGS 1984 and inputting the GPS coordinates of some sites into this map, it was discovered that there was an error of c.70 metres in the map. The map was then geo-referenced (moved 70 metres) to the east to coincide with the various GPS coordinates through an accessory in

¹⁵ I use the Chuukese spelling for the islands of Tonoas and Etten. Etten, is pronounced as Et-ten and it is also used by the Chuuk and Federated States of Micronesian governments and in Rainbird (2004), although many texts spell it as Eten.

‘ArcView 8’ software. A check found many of the points to be within a few metres of their location on the map (see Figure 3.2).

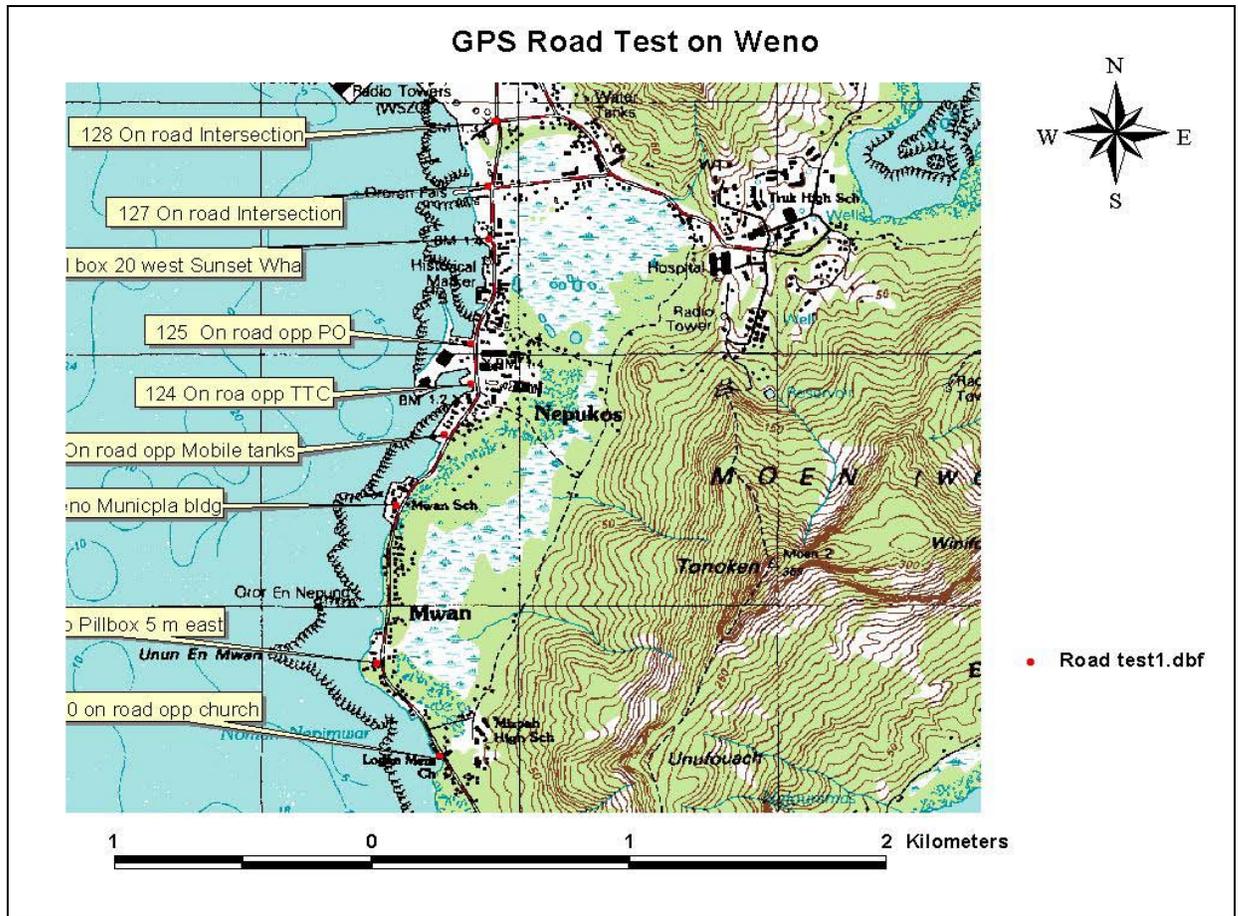


Figure 3.2: GPS and GIS raster map verification using a major road and features on Weno in 2004 (Compiled by Bill Jeffery).

A further number of GPS coordinates were obtained during the side scan sonar surveys. In this case, Differential GPS (DGPS) coordinates were obtained which uses a further satellite to increase their accuracy. As a result all the GPS coordinates of the shipwrecks and aircraft shown in the maps in Chapter 8 are considered to be within a few metres accuracy of their true value and are also considered to be placed within a few metres accuracy on the ‘Moen’ map.

The GPS coordinates of the shipwrecks are not commonly known. The dive guides that are required by law when tourists dive the shipwrecks use their own marks, or the buoys submerged six metres below sea level.

Ethnographic research

During my field work in Chuuk, I talked to many Chuukese people about Chuukese life, history, politics and about various aspects of the submerged and terrestrial World War II sites as a participant observer. I lived in a house in one of the villages (Tunnuk) on Weno, where I discussed many of these aspects with my Chuukese neighbours, particularly some of the social problems and local politics. I had learnt the very basics of the Chuukese language and developed an understanding of Chuukese society, and many people were happy to see I had made an effort and were prepared to talk with me in English about many issues. One of my neighbours was a Chuukese man married to an American woman whose Okinawan grandmother was killed during the war. On the other side of my apartment was a young Chuukese family, who also had Japanese ancestry. Many more informal discussions took place with a number of Chuukese, including the Governor at that time, Ansito Walter, students from the College of Micronesia (COM), the boat operators from the Department of Transport who transported me to the other islands, Chuuk government bureaucrats, dive shop proprietors, taxi drivers and dive guides.

More formal interviews and recordings were carried out with Chuuk HPO staff members, Arimichy Rudolph and Anerit Mailo and the chiefs of Tonoas during the terrestrial site surveys (see acknowledgements for a list of the chiefs of Tonoas). The terrestrial site surveys provided a unique opportunity to work with the Mayor of Tonoas, Gradvin Aisek, owner of the Blue Lagoon dive shop, and son of Kimiuo Aisek who was instrumental in starting the diving tourism industry. A number of the village chiefs of Tonoas, many of whom were young men during the war passed on many stories about their interests in the sites, and the Chuukese relationships with the Japanese. Their stories were recorded on tape at the various sites (with the help of an interpreter) and later transcribed into a field note book. Arimichy Rudolph did most of the interpretation although Anerit Mailo also contributed. While both men were very helpful and knowledgeable about the range of things of interest to me, Arimichy (being an older man) had better English comprehension and was therefore more confident in discussing not only issues about the submerged WWII sites but about many different aspects about Chuukese life, history and politics. During one of the periods I worked for Chuuk HPO, I implemented a training program for young COM students on site recording techniques, and I took the opportunity to gain their feedback, as well as HPO staff, on their view of heritage in Chuuk through a questionnaire (see Chapter 9 and Appendix 2). The objective of the questionnaire was to investigate what types of sites, stories or cultural practices they regarded as important and why. I also solicited comments from diving tourists through a questionnaire and while I had minimal feedback, an analysis of the material is contained in Chapter 9 (see Appendix

3). This questionnaire was aimed at gaining an understanding of how visitors perceived the submerged WWII sites, including their history, diving appeal and management. As part of my research into dive tourism, I obtained tourist figures to gain an understanding of the number and the different nationalities of tourists, from the FSM Department of Immigration and the Chuuk State Visitors' Bureau.

I am conscious that as a participant observer in my associations with many Chuukese, I could provide interpretations from my conversation and interviews that could be biased in some way. I conversed with a number of Chuukese men on similar issues during my fieldwork in an attempt to get a range of views and to counter any particular bias. I have referred to Chuukese men as being responsible for my collage of stories, histories and discussion on relevant issues. I acknowledge that this is a limitation in my research. I did not intentionally avoid Chuukese women in this investigation as they are central to Chuukese (matrilineal) society. Traditionally, they did most of the reef fishing and were impacted by the war as much as the men. Poyer et al. (2001: 54) has touched on how the war affected Chuukese and Micronesian women, and it is an area of investigation that would enhance this study.

Forums and discussions

In Chuuk, I met Clark Graham who had co-authored a publication about the submerged WWII sites and ran a dive shop for a number of years (Hezel and Graham 1997).¹⁶ We discussed many of the issues he was concerned about in regard to the management of the sites. In Pohnpei and Saipan, I talked with Fran Hezel, Director of the Micronesian Seminar, who has written many books and articles on Micronesian history and society, particularly Chuukese society. During formal U.S. National Park and Micronesia Historic Preservation consultative meetings, I met and discussed some of the issues to do with Chuuk with U.S. National Park officials and other Micronesian Historic Preservation Officers from FSM, Guam, Palau, Commonwealth of the North Mariana Islands (CNMI), and the Marshall Islands. I solicited and received feedback and comment on my research through making a number of presentations at different forums (see Table 3.2).

¹⁶ Clark Graham was an American Peace Corp volunteer who went to Chuuk in 1970s stayed, married and raised a family and established one of the first dive shops on Weno. He has been very active in teaching high school students in the areas of maritime archaeology, marine biology, drug abuse and sports.

<i>Date</i>	<i>Forum</i>
<i>June 2003</i>	World Archaeology Congress, Washington DC, U.S.
<i>June 2003</i>	U.S. NPS staff forum, Western Pacific Regional Office, Oakland, U.S.
<i>January 2004</i>	Micronesian Endowment for Historic Preservation (MEHP) meeting, and annual consultative meeting between U.S. NPS and Micronesian HPOs, and Public Seminar, Guam
<i>February 2005</i>	Micronesian Endowment for Historic Preservation (MEHP) meeting and annual consultative meeting between U.S. NPS and Micronesian HPOs, and Public Seminar, Saipan, CNMI
<i>January 2005</i>	Society for Historical Archaeology (SHA) Conference, York, England
<i>November 2005 and March 2007</i>	Earthwatch annual conference, Boston, U.S. and Poster Presentation
<i>November 2005</i>	U.S. NPS staff forum, Western Pacific Regional Office, Oakland, U.S.
<i>November 2005</i>	Australasian Institute for Maritime Archaeology (AIMA) - Australian Archaeology Association (AAA) annual conference in Perth, Australia
<i>September 2006</i>	AIMA - Australasian Society for Historical Archaeology (ASHA) annual conference in Darwin, Australia
<i>October 2006.</i>	James Cook University (JCU), School of Anthropology Archaeology and Sociology (SAAS) seminar series, Townsville, Australia

Table 3.2: The different forums and dates for the presentations made in soliciting feedback on my research

Previous investigations

Many of the previous studies and consultant's reports in Chuuk have concentrated on the anthropology, ethnography, language and archaeology of indigenous Micronesians (Brown 1927; Edwards and Edwards 1978; Gladwin and Sarason 1953; Goodenough 1951; Goodenough and Sugita 1980; King 1978; King and Parker 1981, 1984; LeBar 1964; Rainbird 1993, 1994, 1995; Takayama and Intoh 1978; Takayama 1981; Young et al. 1997). Many of the later studies came about through the need to implement surveys under Section 106 of the *National Historic Preservation Act 1966* prior to development, such as the extension of the Chuuk airport (King 2004: 81-190) (see Table 3.3).

<i>Year</i>	<i>Researcher</i>	<i>Nature of work</i>	<i>Island</i>
1970	Clune	Reconnaissance Survey	Lagoon
1972-73	Takayama & Seki	Excavations (two sites)	Tol
1973	Clune	Excavations (three sites)	Tol
1973-74	Takayama	Excavation (one site)	Tol
1975-76	Takayama & Intoh	Excavation (one site)	Tol
1977	Sinoto, Shutler & Takayama	Salvage excavation	Fefan
1978	King	Predictions: Site locations	Weno
1978	Craib	Survey: Capital Improvement Projects	Weno and Tonoas
1978	Edwards	Road survey	Tol
1978	Edwards	Site Development Plan: Fauba Fort	Tol
1978-79	King	Survey and salvage excavations: Truk Airport and Iras Sewer	Weno
1979	HPO Truk	Survey: Sapuk dredge site	Weno
1979	Takayama	Test excavations	Mortlocks
1979	Susumu Ent. & Takayama & Nishikawa	Site development: Fauba Fort	Tol
1979	Denfield	Survey: World War II land sites	Chuuk
1979	Russell	Site Development Plan: Lighthouse	Puluwat
1979	HPO Truk	Survey: Nepukos village	Weno
1979	HPO Truk	Survey: Tunnuk village	Weno
1980	HPO Truk & Cordy	Survey: Tunnuk village	Weno
1980	HPO Truk & Cordy	Survey: Sapuk village	Weno
1980	Brooks	Geo-archaeological: Sourcing and sea-level studies	
1984	King	Survey: Winikopos	Tonoas
1984	King & Parker	Archaeology in Tonaachaw	Weno
1984	Shutler, Sinoto & Takayama	Excavations: Sapore district	Fefan
1993	Rainbird	Survey: Wininis to Mwen villages	Fefan
1997	Craib	Survey: Pwene	Tonoas

Table 3.3: Past ethnographic and archaeological surveys implemented in Chuuk.

There are also a number of studies on the histories of the foreign powers associated with Chuuk (Heine 1974; Hezel 1973, 1978, 1979, 1983, 1992, 1995; Kahn 1966; Peattie 1988; Pomeroy 1970). However, little work has concentrated on the material culture associated with the Spanish, German and American periods. By far the largest amount of work on foreign material culture has been carried out on the Japanese period sites (Craib 1997; Denfield 1981; Rainbird 2001). The remains of the Japanese occupation and use of Chuuk is the dominant foreign feature of the cultural landscape in Chuuk Lagoon. Denfield (1981: vii) found during his survey: 'The results of the survey show that Truk is rich in World War II sites. It has *in situ* as many guns as all of Europe'.

There is an increasing number of texts on the impacts of World War II on indigenous Pacific Islanders throughout the greater Pacific region (Lindstrom and White 1990; Poyer et al., 2001; White and Lindstrom 1989; White 1991). Turner and Falgout (2002: 112) concluded that 'those who experienced the intense suffering during the Japanese military buildup and the American campaign describe it as the greatest hardship they ever endured'. While I have implemented a number of interviews with Chuuk HPO staff, the chiefs of Tonoas and others, I found the work of Poyer et al. (2001) a most useful contribution in furthering my understanding of the impact of the war in Chuuk, its impact on the Chuukese and their relations with Japan and the U.S. During this work, the authors interviewed over 300 Micronesians (many from Chuuk) who lived through the war, recording many stories.

In terms of the submerged WWII sites there are a number of popular texts (Bailey 2000; Earle and Giddings 1976; Lindemann 1982, 1990; Stewart 1989), a few consultants' reports (Carrell 1991; Hezel and Graham 1997; Lenihan 1992; U.S.NPS 1985; U.S.NPS 1989), but no academic studies.

Following Cousteau's promotion of the shipwreck diving in Chuuk, thousands of divers have visited Chuuk and many popular magazine articles, and more recently websites, have been published around the world, extolling their dramatic and scenic attributes.¹⁷ Marine biologist, Dr Sylvia Earle accompanied by film maker Al Giddings (1976: 600-603) wrote in *National Geographic* about the 'sunken warships as places of worship ... the world's largest collection of undisturbed reefs' and which in her pioneer study found 'a new genus and several new species of plants, records on coral growth, food chains, habits of fishes and invertebrates'. They also

¹⁷ Some websites extolling the brilliance of the diving in Chuuk are <http://www.spislandtravel.com/truk.html> <http://www.aquaexplorers.com/truklagoonscuba.htm> <http://www.submerged.co.uk/truklagoon.php> accessed 4 December 2007.

photographed and reported on the many intact artefacts, including porcelain platters, bowls, plates, cups, brass telescopes and ship's compasses stating it was 'like browsing through an antique store' (Earle and Giddings 1976: 595). In 1980, Earle returned to Chuuk with C. and W. Bayer to make a film about the transformation of the shipwrecks into artificial reefs (Earle, Sylvia, pers.comm. 2001).

While aimed at the popular reader, Bailey's (2000) work stands out as the seminal account of the submerged WWII sites in Chuuk Lagoon. It includes an exhaustive study of the U.S. military action reports from 1944-1945, Japanese communication and intelligence data, and descriptive information containing maps, plans and photographs of the 49 ships and some of the hundreds of aircraft sunk or destroyed, and the many land-based military facilities established by the Japanese. Bailey built up this impressive work over 30 years and during more than 40 visits to the region. He highlights some of the social and ecological issues that affect the current management of the sites, but his publication is primarily aimed at promoting their historic and aesthetic values (Bailey 2000: 3-7). Hezel and Graham's (1997) work, as part of the Micronesian Endowment for Historic Preservation (MEHP), *Micronesian Resources Study*, lists 40 shipwrecks located inside the lagoon and 20 located outside, and provides further details on protection issues and recommends some strategies for future management.

Before Bailey, Lindemann's work (1982 and 1990) in addition to Carrell (1991) were regarded as providing good documentation on the submerged WWII sites (Delgado 1997: 427). Lindemann (1982), in *Hailstorm over Truk* provides some useful background history and archival and shipwreck documentation on 38 shipwrecks, and has supplemented this with further information and previously un-located wrecks (Lindemann 1990).

Toni Carrell (1991) edited the 624 page *Cultural Resource Assessment of Micronesia*, the field work being implemented by SCRUI from 1981-1988. The aims of this work were site documentation and evaluation of submerged sites (not just WW II sites) throughout Micronesia. Over half of the report is devoted to an historical overview of the region and known sites that encompassed indigenous settlement, Spanish exploration, German and Japanese colonialization, and the World War II period. It provides information on the hundreds of ships and aircraft sunk and destroyed throughout the Micronesian region, although only a small number are documented through site surveys, the majority being Japanese ships sunk during World War II. The report identifies 75 ships to have been lost in the vicinity of Chuuk, all Japanese World War II merchant

and naval ships and provides some additional historical information but no site survey documentation (Carrell 1991: 285, 460).

Specific management issues can be found throughout the report and a management summary is contained in a five page 'Management Recommendations and Conclusions' chapter organized according to the different Micronesian regions (Carrell 1991: 549-553). In regard to Chuuk the report concludes: 'SCRU visited only some of the sites briefly over a three-day period and cannot meaningfully add to the body of information presently available in other forms [published books]'. It also concluded that site management was under review given 'the serious allegations of increasing attrition of the sites' (Carrell 1991: 460). The recommendations for all the Micronesian regions in the final chapter are centred on foreign shipwrecks, there are no recommendations about submerged indigenous sites, even though they were included in the project's research design. The obsession with shipwrecks, artefacts and management programs focusing on this material is very antiquarian, and highlights the lack of a theoretical approach incorporating any social discourses.

In May 1992, SCRU implemented a further survey of some sites in Chuuk and made some recommendations on further work required, primarily on the need for the development and implementation of a management plan (Lenihan 1992: 5-14). SCRU's priorities were essentially in the area of CRM and they made a number of recommendations including the need for resources in implementing site protection and law enforcement. This included the prohibition of dynamite fishing, implementation of site surveys to document the shipwrecks, the development of educational materials, upgrading of the National Register, and artefact conservation and display.

In another U.S. NPS report titled *Truk Lagoon Historical Park Study*, the unknown author investigated whether it was feasible to include any nationally significant areas, such as 'Chuuk Lagoon District Monument' within a NPS system of management for the FSM government (U.S.NPS 1989). It was concluded that the submerged WWII sites 'are utterly unique' and 'for the sunken wrecks, the establishment of a historical park or reserve seems to be particularly appropriate in light of the long-standing concerns over looting and vandalism' (U.S. NPS 1989: 61). The report recommended that a national park management agency and approach at a FSM national level be adopted given the significance of the submerged WWII sites. It also noted that while numerous significant World War II sites exist on some of the islands and a similar management approach would be in their best interests, this was not recommended, due to the 'scarcity of land and the adaptive uses to which many of the World War II structures have been put' (U.S.NPS 1989: 63).

Chapter 4: Foreign conquests

Introduction

This chapter provides some historical background to the exploration and settlement of Chuuk (primarily Chuuk Lagoon) during the Spanish, German and Japanese colonial periods until 1939 which is about the time the Japanese navy took control and a different period with different influences and consequences developed. It is not an exhaustive study of these histories, nor is it an exhaustive study of primary documents related to these periods. A number of secondary sources have been investigated including those of Fran Hezel (cited in Chapter 3), Clyde (1967), Cheyne (1852), Hanlon (1988, 1998), King and Parker (1984), Peattie (1988), Price (1936), Rosenman (1992) on the French voyages in the 1830s and 1840s, and the *1922 Annual Report to the League of Nations on the Administration of the South Seas Islands under Japanese Mandate* (American Board of Commissioners for the Foreign Missions (ABCFM) 1923). While the chapter relies on these authors for the historical narratives and particularly Hezel, given their focus is Micronesia, there are narratives that provide further information on the impact, resistance and agency of seafarers and indigenous people in their encounters in other areas of the Pacific (Denning 2004).

The chapter investigates how and why these countries and other agents took an interest in Chuuk and what influences they had on Chuukese lifestyles. Global and regional perspectives are also provided in order to understand some of the ways that relationships and the colonial administrations developed. However where possible, I provide more local perspectives on Chuukese-foreign relationships and the way this affected Chuukese people and their islands.

Spanish period, 1521-1898

A division of the world by Pope Alexander VI in 1493-4 effectively sliced the world, like an apple through the 135th meridian, 370 leagues west of the Cape Verde islands—with Spain claiming all the new world to the west and Portugal to the east, including Brazil.¹ Both countries claimed the Spice Islands (present day Indonesia) although Portugal denied Spain any access to them, as well as the Philippines. When Ferdinand Magellan discovered a new route to the Spice Islands through the Pacific in 1520, ‘there began in the Far East a conflict that lasted nearly a century’ (Carano and

¹ Referred to as the *Treaty of Tordesillas*

Sanchez 1964: 42-43). Magellan reached Guam on the 6 March 1521 and his first encounter with the Chamorro, the indigenous inhabitants of Guam, resulted in a number of deaths when they refused to leave his vessel. When they did leave, they took his skiff (a small boat). Magellan reportedly retaliated the next day, burning about 50 thatched huts and a number of sailing canoes, and killing seven or eight Chamorro, including women (Beardsley 1980: 106). Magellan was ‘killed in a battle with the natives’ in the Philippines on 27 April 1521 but the vessel *Victoria* under the command of Juan Sebastian Elcano reached Spain on 6 September 1522 with only 18 men aboard—from originally five vessels and 237 crew (Carano and Sanchez 1964: 42).

Thus began the Spanish incursions into the region that would become known as Micronesia, although it was not until 1686 that an island, then an island group south of Guam became known as La Carolina, in honour of Charles II of Spain (Carano and Sanchez 1964: 92). The next fleet was sent out from Spain in 1525, returning 11 years later. The long duration was caused in part by their imprisonment by the Portuguese when found in the Moluccas in the Spice Islands. The next expedition was in 1565, under the command of Miguel López De Legazpi who departed from Mexico. This was the expedition that saw the vessel *San Lucas*, under the command of Alonso de Arellano to be the first foreign ship to enter Chuuk Lagoon, on 17 January 1565, coming under the following pressure and resulting in some details of the region being charted (see Figure 4.1):

Arellano reports in his *relacion* of the voyage that after he had brought his ship into the lagoon, the natives who came out to meet him in canoes invited him to enter the inlet near the large island of Tonowas. Adverse winds, however, and the alarming sight of numerous canoes from the other islands bearing down on his ship caused Arellano to turn about and make for the pass in the reef. Before he could escape, some of the canoes caught up with the *San Lucas* and Arellano's crew was forced to defend the ship's launch from the repeated attempts of the Trukese to cut it loose. Out of desperation the warriors hurled spears at the ship. The Spaniards replied with a volley, and in the confusion that followed the *San Lucas* slipped away from the canoes. (Hezel 1973: 52-53)



Figure 4.1: Description of the Western Isles Southeast Asia by Lopez de Velasco, 1570. Arellano named Pulap Atoll (circled), 250 km west of Chuuk Lagoon as ‘Los Martires’ in commemoration of two of his crew being killed there (Hezel 1973:51). It is about 6° north of its true position (Source, Australian National Maritime Museum, Sydney).

Hezel (1973: 27-28) records only four more Spanish vessels to have travelled through the Chuuk region (in 1799, 1801, 1806 and 1814) with the last one entering Chuuk Lagoon, the *San Antonio* under the command of Captain Manuel Dublon on 10 December, 1814. The name ‘Dublon’ was subsequently given to one of the Chuuk Lagoon islands, known today as Tonoas (also called Toloas and Tonowas).

Spanish motives for exploration of the Pacific were to gain access to the ‘riches of China and the Indies and to find the unknown continent of *Terra Australis*’ (United Kingdom Naval Intelligence Division 1945). Manilla in the Philippines was settled in 1565 for this purpose but it was not until 1668 that the Jesuits established a mission on Guam. Within forty years many of the local population had died from introduced diseases and forced resettlement (Hezel 1995: 6).

Chuuk was not part of the Spanish plan for the region, even given the superb anchorage that the lagoon afforded. It was south of the trading routes for the galleons sailing between Mexico, Guam and Manila. If there was any reason to occupy the Chuuk islands in 1565, they may have also been deterred by the reported unfriendliness of some Chuukese. There was a complete absence from Chuuk for 134 years (1565-1799) and then with only one following visit in 1814:

The Spanish stopovers [in Micronesia] were infrequent, short, and of little lasting impact aside from the introduction of the marvel of iron tools. Even if the Spanish had not bedazzled islanders with nails and iron hoop, however, the latter would have discovered this technological wonder on their own—as they did in fact on drift voyages to the Philippines and the Marianas in the seventeenth and early eighteenth centuries. (Hezel 1992: 205)

It is possible that it was these drift voyages by the western Carolinians that were the source of information for the first maps of the Carolines and of Chuuk (Hezel 1973: 2) (Figure 4.2). Drawn by Spanish missionaries Fr. Paul Klein in 1706 and Fr. Juan Cantova in 1722, ‘a large island known as either “Torres” or “Hogoleu” and situated in roughly the position of Truk found its way onto European maps by the middle of the 18th century’ and became the accepted terms used to designate Chuuk (Hezel 1973: 2) (see Figure 5.4). An opinion is that the names Torres and Hogoleu were thought to be ‘West Carolinian corruptions’ of Chuukese names for two high islands inside the lagoon, the former considered to be a corruption of Tonoas (Hezel 1973: 2). On a later chart compiled by British Hydrographer G.H. Richards in 1872 (with corrections made in 1887) Torres Island is the name given to a small island on the edge of the barrier reef west of Tol, and Hogoleu to

the Chuuk Lagoon islands in general.² This chart was compiled from surveys initially carried out by Dumont d'Urville (1838), with additions from Captain Simpson on HMS *Blanche* in 1872, and finally by Captain I. Bray of the *Morning Star* in 1880. The information is also corroborated by British trader Andrew Cheyne (1852: 128).

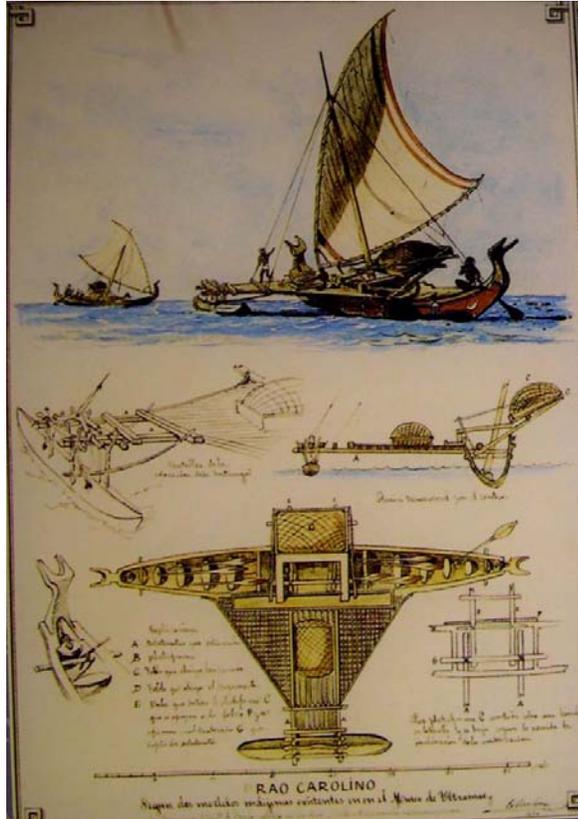


Figure 4.2: A Carolinian Proa, drawing by Rafael Monleon (1890)
(Source, Australian National Maritime Museum, Sydney).

It was the rivalry between the European powers in the 1880s, notably Spain and Germany that led to Spain claiming the Caroline Islands as their colonies. Germany had been controlling much of the trade in the Carolines and the Marshalls since the early 1880s and Spain, reduced in power through wars with Britain and pre-occupied with its other Pacific colonies, the Philippines and Guam, had no real interest in the Carolines. Hezel (1995: 6) explained however that colonial expansion was a matter of national pride, ‘colonies are merely the expression of the spirit of enterprise of strong nations [and] the acquisition of dependencies was both a manifestation of nationalistic fervor and a claim to a place of prominence in the community of “civilized” nations.’ In 1885, Germany announced that it was going to annex the Carolines and initiated a series of visits to a number of the

² Don Luis Torres was Vice-Governor of Guam and in 1804 he visited many of the Carolines encouraging the Carolinians to resume their long distance voyaging to Guam, which they did for the rest of the century (Hezel 1983: 103-104).

islands, just ahead of the Spanish, in which they presented papers and the German colours to various chiefs. The Spanish were outraged and through Pope Leo XIII an agreement was reached in December 1885 in which Spanish sovereignty over the Carolines was recognized, but granted Germany freedom of trade and the right to establish coaling and naval stations on the islands (Hezel 1995: 8).

Two Spanish administrative centres were established, one for the Western Carolines in Yap (June 1886), the other for the Eastern Carolines in Pohnpei (March 1887). In Yap, Spanish authorities and missionaries aimed to reform the Yapese, however the ‘Yapese had no need of the Spanish to bring order into their lives, for their society was remarkably well defined and well regulated’ (Hezel 1995: 16). In Pohnpei it was a different, more troubled colonization. American Protestant missionaries had been in Pohnpei since 1852 and the Spanish had brought with them their Catholic faith, which in a short time came in conflict and resulted in the deportation of the Protestant missionary in June 1887 (Hezel 1995: 28). The Spanish were quick to establish government buildings, houses and mission schools, and to exploit Pohnpeians for work on government projects, coming into conflict with the island chiefs. An armed battle developed in which all the Spanish withdrew from the island, less 50 that were killed including the Spanish Governor. The Spanish returned with reinforcements in October and reasserted their authority, the five chiefs of Pohnpei eventually complying without any further warfare. A wall fortifying part of the colony was built and sections of it can still be seen today (Figure 4.3).



Figure 4.3: Remains of the Spanish wall in Pohnpei (Photograph by Bill Jeffery, 2002).

In Chuuk, the ‘Spanish gave little thought to this remote part of their dominion, so preoccupied were they with their problems on Pohnpei’ (Hezel 1995: 69). While the initial flag raising was

implemented in Chuuk in 1886 it was a further nine years before they revisited the lagoon, primarily to try and stamp out the violence between Chuukese clans and islands. In this particular case, the Spanish with the assistance of the local Protestant missionary, managed to negotiate a truce between some of the chiefs of Uman and Fefan although within a year they were fighting again. Chuuk changed little throughout the 19th century and one missionary called it ‘the terror of the Carolines’ (Hezel 1995: 63).

Hezel (1995: 55) best sums up the Spanish interests in Micronesia, stating that ‘they pursued what they thought were nobler goals, even in the age of mercantilism’. The German Jaluit Company dominated trade throughout the Caroline Islands while the Spanish regulated the trade and tried unsuccessfully to curb local violence and gun smuggling by American whalers. Tangible remains of Spanish rule can be found in Pohnpei but not in Chuuk although later Spanish missionary churches can be found on a few islands in the lagoon.

Other foreign contact

Other foreign contact during the 19th century included American and British whalers, French, German, Russian and British explorers, shipwreck survivors, missionaries, traders seeking beche-de-mer and turtle shell, labour traders and British and German warships. Compared to some of the other islands such as Kosrae and in particular Pohnpei, where 150 non indigenous people lived in 1850, Chuuk Lagoon in 1881 only had the one non-indigenous resident (Bray cited in Hezel 1973: 51). This could be the result of a number of bad experiences between Chuukese and foreigners, although as Lutke had pointed out, these were not confined to Chuuk: ‘On the whole, his experiences in Truk and its surrounding islands contrast sharply with his stay off Ponape where his sextant had nearly been stolen, his crewmen threatened, and their work interfered with’ (Hezel 1973: 4).

Some further examples of the 19th century foreign contact with the Chuuk region occurred in 1795 when Captain James Mortlock on a passage to China from Port Jackson, Australia, discovered the group of atolls about 200 km to the south east of Chuuk Lagoon that were originally named after his ship *Young William*. They became known as the Mortlocks (Hezel, 1973: 2).³ People from the Mortlocks in comparison with the lagoon inhabitants were seen in a favourable light and this was probably a factor in the area becoming known as a place to visit for foreigners compared with

³ Hezel (1983: 82) later credits the discovery of the Mortlock Islands to Captain Raven in the vessel *Britannia* sometime after 1793 and Captain Mortlock as the discoverer of Puluwat Island to the west of Chuuk Lagoon.

Chuuk Lagoon. As British traders through the Honourable East India Company carried out a steady stream of voyages to Canton in the 1780s, they came in contact with Palau, located on the inner passage to China where they considered establishing a base for their China trade. With the establishment of the penal colony in Sydney, New South Wales in 1788, a number of whalers and traders had a base from which to venture into Micronesia over the next 40 years (Hezel 1983: 64). Two of the vessels from the 'first fleet' to New South Wales, the *Charlotte* and *Scarborough* with Captains Gilbert and Marshall in command, sailed to Canton through the island groups that bear their names.⁴ This outer passage to China, as it became known, brought the British to the Chuuk region.

In 1802, Captain Jenkes in the U.S. brig *Arthur*, while on a trading voyage from Port Jackson to Canton, made 'a fair description of the islanders' dress and physical appearance' (Hezel 1979: 27). Frenchman Louis Duperrey, captain of the *Coquille* sailed around Chuuk Lagoon in 1824 although he did not enter the lagoon and had minimal contact with Chuukese but his charts are said to be the first good charts of these islands (Hezel 1979: 28). Fedor Lutke visited Chuuk Lagoon in 1828 and noted some differences between the inhabitants of the Mortlocks and those in the lagoon, including the use of fighting weapons, not seen in the Mortlocks. Lutke also learnt 'that the name "Hogoleu" was not understood by the natives there; "Ruk" was the name they gave their island group and a name that soon afterwards gained currency among Europeans through Lutke's influence' (Hezel 1973: 4).

'Dreaded Hogoleu'

In 1828, French Captain Dumont d'Urville in the *Astrolabe* passed Chuuk Lagoon but it was during his second voyage into the Pacific in 1838 that he entered Chuuk Lagoon anchoring at the Tsis anchorage and providing the first, most detailed description of the Chuukese (Hezel 1973: 54). Dumont d'Urville found Chuukese cautiously friendly, observing that they had secreted Chuukese women out of their sight. The French in the two vessels *Astrolabe* and *Zelee*, spent four days surveying the islands and trading with Chuukese, and were the first foreigners to set foot on the islands (Hezel 1983: 91). However, toward the end of their stay the situation changed:

On the 26 December, Duroch and Dumoulin set off for the day in the cutter to make a hydrographic survey of the islands, but returned some-what shaken before noon. There was a great gathering of canoes, some from another island ... They were assailed by a flight of spears, one narrowly missing Dumoulin, while another grazed Duroch's shoulder. On the shore they could see women fleeing towards the hills carrying their children and household goods, then the attack began in earnest.

⁴ The Gilbert islands are now called Kiribati.

Twenty-one canoes from Truk, watched by others from another island, came out in close formation to join in, while other savages gathered on a nearby reef ... With scattershot the blunderbuss destroyed the chief's canoe while Dumoulin and Duroch picked off the two dancers—the rifle practice on board had stood them in good stead. (Rosenman 1992: 159)

Dumont d'Urville's final words on the people of Chuuk Lagoon were, 'the reputation of the Carolines has been tarnished, for we have found here treacherous and wicked people, however engaging their appearance' (Dumont d'Urville cited in Hezel 1973: 55).

It is difficult to speculate upon the cause of this violence, but there were other similar episodes, one involving a British trader named Andrew Cheyne:

I visited this group in October, 1844, with two vessels, a brig [*Naiad*⁵] and schooner [*Will-O'-The-Wisp*⁶], for the purpose of collecting biche de mer. The natives at first appeared very friendly, and assisted us to erect houses on shore for cutting the slug. They managed so completely to take me off my guard, that I left the schooner to take charge of the station we had formed, and removed my brig to another village, intending to form another curing establishment; but the second morning after my departure, they attacked the schooner with an immense force, supposed to be not less than two thousand men. After a desperate engagement they managed to beat them off, but with a loss of six men killed, and five severely wounded...[In retaliation, Cheyne] anchored close to the enemy's town with springs on our cables, and commenced firing on it... We burned the greater part of the town, and broke up all their proas and war canoes. (1852: 127-128)⁷

Cheyne (1852: 126-127) noted the population of the whole group (in 1844) was about 15,000-20,000, and subsequently warned anyone sailing passed the area not to have anything to do with the inhabitants, given their treacherous nature. Young et al. (1997: 6) estimated Chuuk's population to be about 35,000 in 1827 and 11,000 in 1911, the decline caused from introduced diseases.

From 1824-1834, twelve American and British whaling vessels sighted or made landfall in Chuuk Lagoon or its outer atolls, with only two during the period 1840-1860 as compared to Pohnpei which had 40 vessels per year. Lutke suggests the whaling vessel decline was due to the diminishing number of whales in the equatorial region of the Pacific (Hezel 1973: 56-57). Pohnpei was regarded as having the safest harbour with good quantities of fresh water compared to Chuuk Lagoon's limited available fresh water. Another favoured aspect of Pohnpei over Chuuk was that Chuukese women were secreted away when foreigners visited compared to Pohnpei where women

⁵ The names of Cheyne's two vessels can be found in Hezel (1979: 31).

⁶ A schooner named *Will-O'-The-Wisp* was wrecked off the coast of Townsville, Queensland, Australia in 1848 and the *Gladstone Advocate* (December 16, 1899, p2 cited in McDonald 1988: 33-34) refers to two Spanish cannon being recovered from the wreck site found by survivors from a later shipwreck in 1859.

⁷ In Chapter 2, I have referred to Hezel (1992: 204) inferring that Chuukese in lagoon did not use sailing canoes 'proa' but Cheyne recorded some in the lagoon in 1844.

were sold to whalers (Hanlon 1988: 98). Whalers did not use islands like Pohnpei and the Chuuk Lagoon Islands for catching whales but for recreational purposes and replenishing supplies.

It would appear that Dumont d'Urville's accounts of the treachery by the inhabitants of Chuuk Lagoon did not play a large role in deterring whalers and traders from visiting the lagoon. However, Cheyne's influence was far greater, through his contribution to British hydrography and information found in his book, *A description of the Western Pacific Ocean, north and south of the Equator with sailing directions* (1852) where he described Chuuk Lagoon as the 'Dreaded Hogoleu' (Hezel 1973: 60).⁸ Cheyne was quoted in Findlay's *Directory*, the *Nautical Magazine* and other leading maritime journals of the day which would have had an influence on many traders for the next forty years (Hezel 1983: 257). This fear of Chuukese in Chuuk Lagoon was reinforced through the treatment of a group of shipwrecked sailors from the *Norna* (1861) and in further attacks on a German trading vessel *Vesta* (1866). In the case of the *Norna*, the inhabitants of the island of Tol were rewarded by rescuers for their assistance given to the shipwrecked sailors who had fled the island of Fefan where they had been treated like slaves, an indication that the lagoon islands in the 1860s had separate identities and practices (Hezel 1973: 59; Hezel 1979: 32).

Another incident in 1872 would have further contributed to the great wariness between foreigners and Chuukese. Hezel (1979: 32-33) reported a labour recruitment vessel named *Carl* from Melbourne, Australia put in at the Mortlock Islands, 300 km south-east of Chuuk Lagoon and 'carrying off 47 natives by smashing the canoes when they came alongside the ship'. A British man-of-war HMS *Blanche*, when investigating these claims of 'black-birding' in 1872, found whole villages deserted, cooked food left behind and Chuukese in canoes fleeing from them (Hezel 1979: 32-33).

Cheyne's dislike and warnings of the Chuuk Lagoon inhabitants extended to the outer Chuukese atolls, notably the Mortlocks, but this appeared totally unjustified. 'When Lutke and the other naval commanders surveyed the area between 1815 and 1849, they found the atoll-dwellers of the central Carolines and the Mortlocks far more cosmopolitan and sophisticated [and friendly] than the inhabitants of the larger volcanic islands of Yap, Truk, Pohnpei and Kosrae' (Hezel 1992: 205). The Mortlocks had strong trading, cultural and linguistic ties with Chuuk Lagoon and were seen as stepping stones for foreign influences including missionaries into Chuuk (Hezel 1973: 10).

⁸ Hezel (1983: 199) noted that 'Cheyne had trouble almost everywhere he went.'

Missionaries in Chuuk Lagoon

Missionaries came into contact with and began influencing the lives of the inhabitants of Chuuk Lagoon from 1874 with the arrival of Protestant missionaries in the Mortlocks. In 1879, a mission was established on the lagoon island of Uman under the protection of a chief (Hezel 1991: 123). In 1884, Reverend Robert Logan, the first American missionary arrived in Chuuk and found existing churches on four lagoon islands. Chuukese chiefs were reported to be keen to enlist the services of mission teachers (Hezel 1973: 60), while the stated goal of the American missionaries was to establish 'native churches that were self-financing, self-governing, and self-propagating [and] to withdraw outside support at the earliest opportunity' (Hezel 1978: 1-2).

Spanish Catholicism came to Chuuk Lagoon about 40 years after the Protestant missionaries arrived, being the last of the principal island groups to be evangelized (Hezel 1991: 123). While it was reported that Catholic missionaries tended to be more tolerant of native customs neither religions could do much about the warfare between Chuukese clans and islands (Hezel 1978: 7). Protestant missionaries insisted on Chuukese men, women, children and babies being clothed and for them to buy the clothes rather than receive them as gifts. The Catholic missionaries distributed gifts and 'hoped that their liberality would win the affection of the natives and prepare the way for their conversion [although they] drew the line at divination, belief in spirits, and the use of all kinds of "magic"'. Baptismal names were Spanish or German, depending on the period, and religious processions were similar to what was seen in Europe at that time (Hezel 1978: 4).

There are a number of other examples of what the missionaries thought and attempted in pursuing their religious endeavours in Chuuk. Protestant missionaries prohibited long hair, dances and the use of turmeric as body decoration (Hezel 1978: 4). They began to interfere in the traditional land holding system particularly in Pohnpei, labelling it as socialism. They found land was owned by groups and not individuals and bemoaned the fact that they could not find any individual action or individual responsibility. 'Efforts to do away with communal ownership of land, which proved unsuccessful, led to their tinkering with a number of interlocking traditional institutions in the name of Christian morality' (Hezel 1978: 5).

While Hezel (1978: 6-7) notes that some of the best ethnographical studies in Micronesia were written by missionaries, he concludes:

For a number of reasons the attitudes of both missionaries and native Christians were not conducive to the cultural adaptation of religious practices and teachings to the local traditions. Indigenization

meant, in the case of the Protestant churches, a native clergy supported by a native congregation -- but it went no further than this. Catholics had not progressed nearly as far in promoting native church leadership nor in working towards self-support, although they tended to be somewhat more tolerant of native customs. Neither Catholics nor Protestants adopted any positive policy that might deliberately promote a synthesis between the Christian faith and the culture of the people.

A German critic of the missionary's work in Micronesia described it as 'a veneer of a formalistic piety that lacked any real substance'. The only lasting change he could discern was the 'conversion of simple, unpretentious people into grasping "dollar-worshippers" who would not work for less than two or three dollars a day' (Hezel 1983: 315). Hezel (1983: 315) rebukes this and argues that some of the missionary achievements throughout Micronesia were effective. Many people had been taught to read and write in their own language, medicines that were imported saved numerous lives during times of epidemics, and warfare in some areas had been eliminated. But in other areas such as in Chuuk, many reforms failed. Kinship, land ownership, social and political structures remained largely unchanged, and internal warfare did not cease.

This combination of a developing trade with foreigners and the involvement of missionaries had a number of effects on Chuukese life and customs. The trade with Chuukese was initially with the chiefs who hoarded trade goods according to traditional practices, and later with all Chuukese, who as they acquired wealth, started to change their traditional ways of life (Hezel 1992: 207). It began with small amounts of iron goods, tobacco and clothing. Fifteen years later, traders were doing a brisk business in guns, dynamite, and liquor which caused one of the missionaries to state, 'living at Ruk is like living over a volcano' (Hezel 1995: 63). From a Chuukese viewpoint, guns were obviously a significant acquisition for internal warfare. From an outsider's viewpoint the killings had now escalated to dangerous levels, not only among Chuukese but also foreigners, causing one later anthropologist to comment: 'Trukese surely became more deeply conscious of the need for effective social controls that only a supra-familial authority could provide' (Hezel 1973: 68).

While Chuuk was the last of the Micronesian islands to be opened up, contact with the Spanish, with various foreign explorers, traders, exploiters and missionaries had been made. This influenced Chuukese interactions with foreigners (and *vice versa*) as well as how they were interacting between clans and islands.



Figure 4.4: Island warriors, c. 1900 (Source, Micronesian Seminar, 960 FWS-28).

German period, 1899-1914

Although the annexation of the Carolines by the Spanish in 1886 interrupted Germany's plans for a large Pacific colony, it acquired the Marshall Islands in October 1885. German trading firms, particularly the Jaluit Company had been in the Marshalls since 1875 and by 1885 the Marshalls was the richest source of copra in Micronesia and the major trading destination in the northern Pacific. The international business community suspected that Germany's interest in annexing all of the Carolines was a 'feint to cover the acquisition of the Marshall Islands' (Hezel 1995: 46).

Germany was keen to extend its colonial possessions in the Pacific and negotiated a deal with Spain on the purchase of the Caroline and Marshall Islands during the Spanish-American War of 1898 (Hezel 1995: 94). While the U.S. wanted to acquire all Spanish interests in the Pacific, it finally approved of Germany's purchase at a cost of 25 million pesetas (about \$4.2 million) leaving the U.S. with the Philippines and Guam (Hezel 1995: 95).⁹

The German Protectorate of New Guinea oversaw the administration of the Caroline and Mariana Islands, with Yap and Pohnpei chosen as the centres of government for the Caroline Islands, and Saipan for the Marianas. Unlike the Spanish, the German authorities did not establish a large force to protect themselves, a situation which the Pohnpeians tried to take advantage of within a few days

⁹ The U.S. had offered to buy Kosrae from Spain for \$1 million to be used as an American cable station (Clyde 1967: 25).

of the formal ceremonies, by attempting to steal rifles and ammunition. As a result, the German Deputy Governor of New Guinea, Albert Hahl, took up residence in Pohnpei as the new district officer and he successfully implemented stamping out the trade of guns and liquor from visiting trading vessels to Pohnpei. 'In early January 1901, Hahl and a company of Melanesian police paid an unannounced visit to Chuuk on the cruiser *Kormoran* surprising a large group of Japanese traders in the midst of their New Year revels. All except one Mori Koben, were expelled and the half-dozen European traders in Chuuk were served strong warning that they could expect the same treatment unless they observed the law' (Hezel 1995: 97). Hahl also rounded up three Chuukese men who had been involved in recent murders, one being an *itang* named 'Soon' from Tonoas (referred to in Chapter 2), and took them in irons to Pohnpei, where they were imprisoned for two or three years (King and Parker 1984: 86; Young et al. 1997: 22) (see Figure 2.10).¹⁰

Hezel (1995: 98) interpreted this show of strength by the Germans in Chuuk as one of the reasons they were successful in gaining the cooperation of Chuukese as 'no murders had occurred since the arrest of the three chiefs in 1901'. In addition, they encouraged Chuukese to make more use of their land, threatening that it could be confiscated for use by other islanders if left unused. Hahl's successor in 1901, Victor Berg, initiated the appointment of regional chiefs over six areas of Chuuk Lagoon 'each of them given a flag as a symbol of his share in the imperial authority of Germany' (Hezel 1995: 98). In 1904, Berg visited Chuuk and peacefully confiscated 436 guns and 25,000 cartridges, compensating Chuukese with 9,000 Marks. As a show of Germany's strength, the German vessel *Kondor* fired its guns into the lagoon islet Piis Iras until it was totally destroyed (Parker and King 1984: 461-462) (Figure 4.5). While fighting between Chuukese clans was not totally extinguished, German intimidation and chiefly structuring is seen as a major turning point in Chuukese pacification and acquiescence. Hezel (1995: 98) considers that, 'perhaps even with a sense of relief that the constant fighting was over at last [and it was] as if Chuukese had been waiting for years for a show of leadership, indigenous or foreign, strong enough to compel their submission'. German administrators also encouraged the revival of Chuukese traditional dances in which traditional dress and turmeric was used in an attempt to contact the spirits through mediums, and their missionaries established many schools.

¹⁰ Hezel (1995: 97) spells Soon as Son.



Figure 4.5: The German vessel Jagnor displaying the same show of strength in Pohnpei (Source, Micronesian Seminar, 960 MCI-17).

The German government was very keen to assist commercial groups in developing profitable industries throughout the Carolines as it had done in the Marshalls. The Jaluit Company (named after a Marshallese Island that contained a good harbour) had administered the Marshall Islands ‘like the company store’ for the German government for 18 years from 1888 (Hezel 1995: 48). Impressive commercial and residential facilities were built on Jaluit and many of the Marshallese chiefs greatly prospered from the coconuts on their land, although many ordinary Marshallese did not. A number of strikes and blockades from 1901-1904 saw the Jaluit Company increase the pay of ordinary Marshallese. In Chuuk, the Jaluit Company was established on Etten in about the 1890s amongst the constant warfare between villages and islands. Etten being adjacent to the island of Tonoas, came under the authority of the chief of Tonoas and it is likely that similar commercial incentives were made with this chief as in the Marshalls. At one stage Chuuk was also proposed as the capital of German government in Micronesia because of the constant warfare between the Pohnpeians and the Germans in the first few years of their colonialization, but this never eventuated (Hezel 1995: 136). It was not until 1909 that a German government administrative centre was established on Tonoas in Chuuk, together with a small dispensary.¹¹

¹¹ In 1909 and 1910, Augustin Krämer and colleagues visited Chuuk, as part of a German scientific expedition to the western Pacific. While only staying a few days on each occasion, they made and published a number of ethnographic observations, in addition to estimating the lagoon population to be around 13,000 (Craib 1997: 17).

The German authorities introduced a tax system to pay for public works, a system never before seen in Chuuk. While Chuukese are reported to have worked willingly to pay off the tax, German economic development did not extend to Chuuk:

Very little in the traditional social organization of Chuuk encouraged surplus production. There were no titles to which individuals could aspire as on Pohnpei, none of the organized competition for prestige that existed on Palau, not even the same degree of chiefly authority as in the Marshalls or Yap. Chuuk was a society built on a number of loosely linked extended families, with little in the way of centralized government, even on the island level. There was simply no reason for people to push themselves to produce more once they have satisfied their hunger. (Hezel 1995: 144)

With Germany's introduction of a cash-based economy, a number of younger Chuukese looked elsewhere for work such as in the phosphate mines in Nauru and Palau, discovered and developed by the Germans.

In other areas of Micronesia, similar reforms and social upheavals were taking place. In the Marshall Islands traditional dress styles were being lost, the Marshallese stick charts were disappearing, and even drinking coconuts were hard to get in some places because of the copra industry wanting to maximize its profits (Hezel 1995: 54). In Pohnpei, a major rebellion, called the 'Sokehs Uprising' was put down in 1911. This was stimulated in part through the compulsory labour requirement of the German government and a proposed change to the traditional land tenure system. The uprising involved five German warships and an additional 300 marines to the already 200-strong police force. A result was the execution of 15 Pohnpeians and the exile of 460 from Sokehs (one of the five different Pohnpeian groups). The matrilineal land tenure system was changed to one where the oldest male heir inherited land. Compulsory labour for public programs was enforced and the tax system was changed such that everyone (including foreigners) had to pay 40 Marks a year, or work it off. Another more insidious impact of German colonialization was from western diseases, shown in the reduced population. In the Marshalls, for example a government census in 1908 gave the population as 9,200 compared to the estimated 13,000-15,000 before German annexation (Hezel 1995: 125). Germany also established a submarine cable connecting Yap, Guam, Shanghai, and Mendano (Celebes) in 1904 and a radio telegraph on Yap in 1913, and German culture was spread by hundreds of Catholic and Protestant priests (Clyde 1967: 19).

The poor economic development of Micronesia and the 'strong challenge from other nations, especially Australia and Japan' forced Germany to make some major changes:

[Governor] Hahl's goals for the Marshalls, as for the entire island territory, went beyond economic development as such. He envisioned the collapse of the whole system of chiefly control of the land and foresaw a day when "despotic order should no longer be the incentive for activity, but rather the joy of having property, of having goods of civilization." To hasten that day, the German administration in 1914 drew up plans to break its long alliance with the Marshallese chiefs and retain for itself all the copra tax that normally was collected by and shared by the chiefs. This would have been a forceful initial step in undermining the tribute system in the Marshalls, but, like the plantation syndicate system, it was never acted on. World War I intervened. (Hezel 1995: 131-132)

From 1886-1914, Chuukese had some major changes thrust on them as well as accepting others. Physical signatures of the changes are more evident in other parts of Micronesia, such as in Pohnpei and the Marshalls. Spanish and German government buildings, foreign traders' facilities and churches were more commonly erected in these islands than in Chuuk. However, Chuuk traditional political and social structures were being reorganized, a cash-based system was influencing subsistence living, and foreign religions, languages and dress were being introduced to suit colonial endeavours—particularly from Germany. At a World Council of Indigenous Peoples Pacific Region Conference in 1984, Roman Bedor (1984: 47) spoke of Christianity in Micronesia: 'Christianity was used to alienate the land from the people. Land was given to the Catholic Church ... Germany did not believe that this sort of Christianity was good for us, so they disposed of the Catholic Church and brought in a Lutheran-Protestant mission to the islands. Once again land was alienated and given to the church'.

German arrival in Chuuk meant major changes. Rather than acting for humanitarian reasons, these actions were implemented by German administrators to help make the islands more profitable, and to which Clyde (1967: 19) noted, German efficiency 'resulted in an administration that had much to recommend it [but] the basic motive was economic exploitation and imperialistic greed'.

Japanese period, 1914-1939¹²

The Japanese period has been divided into two as they are two distinctive phases where some very different Japanese-Chuukese relationships and consequences resulted. The first phase largely involves the civilian government from 1914-1939; the latter one is dominated by the military government and the build-up to war from 1939-1945, which is covered in Chapter 5. This first phase touches on some of the earliest contact by the Japanese in Micronesia in the late 19th century and, although it was 20-30 years after the commencement of the Meiji period, this was still a major

¹² Throughout this thesis when citing Japanese people, I have used the Japanese system of family name first followed by the given name.

influence on many Japanese and the Japanese government's desire to expand.¹³ This first phase also covers a number of significant developments and events in which Japan was a major player, some of which occurred in Micronesia, and includes the establishment of the League of Nations after World War I and Japan's control over Micronesia, and expansion into China. A primary aim of this section is to examine what influence Japan had in Chuuk, and it is investigated in context with Japan's activities throughout Micronesia and the Pacific, with its neighbours and other major world powers, in particular with the U.S.

Although Japanese took control of Micronesia in 1914 there had been Japanese trading ventures into Micronesia since the late 1880s and according to Clyde (1967: 22), 'a training cruiser, the *Ryujo*, visited Kusaie [Kosrae] in 1884'.¹⁴ At the beginning of the German period in 1899, there were five Japanese traders in Chuuk and as previously mentioned they were expelled for selling weapons, with the exception of Mori Koben (King and Parker 1984: 83).¹⁵ Mori arrived in Chuuk in 1892 at the age of 22, and remained there until his death in 1945. Married to a chief's daughter, he had twelve children and eventually became known in Japan as the 'King of the South Seas' (Peattie 1988: 196). He was said to have 'made a vow to dedicate his life to the South Seas and to Japan's southward advance' (Kashino cited in Peattie 1988: 28). Peattie (1988: 2) refers to the 'southward advance' (*nanshin*) as being part of Japan's early Meiji era, 'whereby the nation would find glory, prosperity, and new territory'. Mori quickly established himself as a prominent trader. He acquired fluency in the Chuukese language and their customs, became a military advisor in the inter-island clan wars, but was still devoted to Japan (Peattie 1988: 30). He became a successful planter and trader amassing a small fortune that he used to improve the education, transportation and commercial facilities in Chuuk. He later became an advisor to the Japanese government in Micronesia and prepared a detailed outline of the customs and culture of Chuuk, which Peattie (1988: 195) saw as an exceptional piece of scholarly work. This fervor for South Seas expansion, trade and the domination of the Micronesians displayed by Mori in Chuuk was indicative of the Japanese in Micronesia in general, and was further enhanced through Japanese immigration and their colonial and trading policies.

¹³ The Meiji period or restoration commenced in 1868 and is regarded as the start of Japan becoming a modern nation, outward looking, rather than the closed door of previous times.

¹⁴ Price (1936: 167) also notes this visit of the *Ryujo* to Kosrae 'The [Kosraean] king told the visitors that his people were descendants of the Japanese race. There are frequent traces of the Japanese language in the dialects of the islands. There are many similarities in culture. The primitive gods of Japan and the Islands were about the same.'

¹⁵ Mori was an agent for the German trading firm, the Jaluit Trading Company and may have been the reason for him not being expelled.



Figure 4.6: The Mori Koben memorial on Tonoas (Photograph by Bill Jeffery, 2001).

However, Mori was not the first Japanese in Chuuk. In 1895, during the Spanish period, 15 Japanese traders were found in Chuuk, many of them on the island of Udot. Here they carried out an illicit trade in Murata repeating rifles, explosives for fishing, and distilled spirits, away from the scrutiny of the American Protestant Pastors (Hezel 1995: 79). The missionaries and the Spanish were powerless to stop these trading activities, with the Spanish doing little except making occasional visits to protect the missionaries. It was known that if the Japanese traders did not import guns to trade, American vessels would. The wife of Robert Logan the American Protestant Pastor, wrote in 1891: ‘The people are wild for them [guns] and will buy nothing else if they can get them. Would that the sale of them might be stopped in some way. The Spaniards have even said that they are glad to have the people fight and kill each other, as it will save them the trouble of doing it’ (Logan cited in King and Parker 1984: 81).

Although Japanese traders had looked at establishing trading centres in Yap and Pohnpei in the early 1890s, they established themselves in Palau (1891) and Chuuk (1892), preferring to be away from Spanish administrators. These centres stimulated further growth with the Japanese government who was keen to expand southwards: ‘The flow of popular writings on the Pacific, including those by Taguchi and Suzuki themselves, was fast enkindling the national imagination’ (Hezel 1995: 76). Unemployment in Japan, combined with entrepreneurs wishing to create wealth, contributed to

immigration into Micronesia. In 1891, after a failed venture in Pohnpei, two Japanese merchants founded the South Seas Hiki Trading Company, the *Nan'yō Bōeki Hiki Gōshigaisha* which although it was suspended by the Germans in 1901 and later impacted by two violent typhoons in 1905 and 1907, the company managed to show 'a profit each year prior to its merger with Nan'yō Bōeki Murayama Gōshigaisha in 1908' to form the 'great organization that ruled trade in Micronesia until the 1940s, known as the Nan'yō Bōeki Kaisha' and referred to as NBK or *Nambō* (Hezel 1995: 77). 'Nan'yō', which simply means 'South Seas' was used by many of the Japanese trading, development companies and government agencies that worked and administered Micronesia (Peattie 1988: xvii).

At a global level, and with considerable British help in training and provisioning its navy, Japan defeated China in the Sino-Japanese War of 1894-1895, gaining Formosa (present day Taiwan) and the Pescadores. Japan had also achieved a crushing defeat of the Russian Baltic Fleet at the Battle of Tsushima in 1905, gaining Liaotung Peninsula in Southern Manchuria and the island of Sakhalin.¹⁶ In 1875, Japan had secured recognition from Russia of the Kurile Islands and together with the above annexations and that of Korea in 1910, was greatly expanding its empire (Clyde 1967: 21).¹⁷ However, the U.S. saw Japan as a potential threat, possibly restricting access between Guam and its Philippine territories from Hawaii, which it acquired in 1898, and the Wake Islands, occupied by the U.S. since 1900. Strategists on both sides considered the outcomes of a war involving Japan and the U.S. in the Pacific with no clear solution from the U.S. point of view, and a 'strategy of attrition' required for success by Japanese forces but as an outcome both countries became aware of the potential strategic importance of Micronesia (Clyde 1967: 36). Japan had achieved at this time business interests in Malaya, the Philippines, the Netherlands East Indies (Indonesia) and a few hundred Japanese traders and fishermen in German Micronesia, although no government foothold (Peattie 1988: 37). These factors contributed to some influential Japanese in the debate on whether there should either be a north Asia (*hokushin*) or southward expansion (*nanshin*), to propose a southward expansion and 'establish naval hegemony in those waters against the advance of the American Naval Power' (Peattie 1988: 37).

¹⁶ Peattie (1988:34), who refers to Russia as 'the world's greatest land power', concludes that these two naval victories placed Japan as the 'predominant naval power in East Asia'. The U.S. supported Japan in its war with Russia.

¹⁷ The U.S. agreed to Japan's annexation of Korea in return for Japan's agreement not to challenge its annexation of the Philippines <http://www.aplconference.ca/apwbackgrounder.htm> accessed 3 April 2005.

Japan's military rule in Micronesia

With the outbreak of war in Europe in the summer of 1914, Britain requested Japan's help to counter the German navy in the East China Sea. Germany had no base in the Pacific but was established on the Shantung peninsula in China. As war began in Europe, the German fleet were in Pohnpei on a flag-waving cruise. They planned to return to Germany and as Britain was anxious about their shipping in the East China Sea, Japan was asked to sink the German ships without occupying German island territories (Peattie 1988: 40). Japan declared war against Germany on 23 August 1914 on the basis of honouring its commitments under the Anglo-Japanese Alliance and began its search for the German East Asiatic Squadron in Micronesia. By this time, the German squadron had left the Marshalls, bound for Germany via Cape Horn. There was considerable debate between Japanese politicians and the navy about whether the Japanese forces should occupy the islands when in pursuit of the German force. The politicians did not want to offend Britain and occupy any of the islands, whereas some of the influential Naval General Staff argued strongly that, 'Japan ought to have something to show for its efforts [and] the South Seas were an underdeveloped, underpopulated treasure house of natural riches, waiting to be developed by Japanese enterprise and resourceful immigrants' (Peattie 1988: 43). When it first touched the Marshalls on 29 September 1914, the Japanese force left no personnel behind, but it was ordered to return and establish a base there on the 3 October 1914. Within another 11 days, Japanese forces occupied all of the major Micronesian islands, except Guam and the Gilbert Islands, and the navy 'made it plain that it did not welcome the entry of any other ships into Micronesian waters, even those of its allies' (Peattie 1988: 44).

On 12 October 1914 the Japanese battleship *Kurama* anchored in Chuuk Lagoon. Later in the year Chuuk became the headquarters for the Japanese in Micronesia under the command of the Provisional South Seas Defence Force with five other naval districts—Saipan, Palau, Pohnpei, Jaluit and Yap. Over the next three years, discussions took place with Britain about the seizure of the islands. When another request came from Britain for Japanese help in the war in Europe in 1917, Japan agreed to help provided Britain gave assurances regarding disposition of Shantung and the Pacific islands, which they did, sealing the fate of the islands (Peattie 1988: 46). Another factor that would have contributed to the acquiescence by Britain was that Australia and New Zealand were determined to retain New Guinea, the Bismarck Peninsula and German Samoa, 'if for no other reason that to prevent further Japanese southward expansion in the Pacific' (Peattie 1988: 47). By the end of March 1917, Britain, France, Russia and Italy approved of Japan's claim on Micronesia.

The League of Nations

The U.S., not being party to any of these negotiations, was alarmed at Japan's move south and subsequent occupation of the Pacific Islands. The President of the U.S. at the time, Wilson, proposed a new system of dealing with the occupation of Germany's territories, designed as a system of international guardianship supervised by the new League of Nations and was 'adamantly opposed to the permanent acquisition of Micronesia by Japan and unprepared to recognize the secret treaties of 1917' (Peattie 1988: 50, 53)¹⁸. Japan, Australia, New Zealand, South Africa and France all argued for annexation of the former German colonies that they had an interest (Clyde 1967: 30-32). At the end of the political debate during the Paris Peace Conference in May 1919, the German islands north of the equator were awarded to Japan as a Class C Mandate under the League of Nations and contained in the *Treaty of Versailles* (Peattie 1988: 56). Similarly, the islands south of the equator were awarded to Australia, New Zealand and France prompting Japan to argue that they be open for trade and immigration of all nations (Peattie 1988: 56). This was rejected, resulting in Japan retaliating by keeping Micronesian waters off-limits to the ships of other nations (Peattie 1988: 57). This became a major irritation for the U.S. government who later argued that Yap should be excluded from the mandated islands because of the cable station located there. In 1922 an agreement was ratified which provided American access to the Yap-Guam cable, and freedom for American missionaries to operate, although in 1934 when Clyde visited Yap, no Americans could be found, 'an example of needlessly inept diplomacy' (Clyde 1967: 61-62).

Japan now appeared blocked from lands further south, particularly New Guinea, although an internal navy memorandum declared: 'The newly occupied territories in the South Seas fill a most important position as a link between Japan and the East Indies, the Philippines, New Guinea, and Borneo. Even if our occupation brings no immediate advantage the islands must be carefully kept in our possession as stepping stones to the treasure houses of the southern regions' (Kaigunshō cited in Peattie 1988: 51). During the Japanese navy's administration of Micronesia (1914-1922), it enthusiastically issued:

Laws and regulations necessary to insure peace and order, [and] on the larger islands the officers saw to a host of public works—roads, navigation buoys, docks, and wharves; undertook the detailed charting of coasts and reefs; directed surveys and censuses; supervised justice, education, hygiene, and sanitation; subsidized steamship services between the islands; encouraged agriculture and trade; promoted Japanese language instruction; controlled village life through a cautious restructuring of

¹⁸ General Smuts of South Africa put forward the Mandate system under the League of Nations which would administer the system although he proposed to exclude the German colonies in the Pacific and Africa as they 'are inhabited by barbarians and to whom it would be impracticable to apply any idea of political self-determination' (Clyde 1967: 30).

traditional political hierarchies; and drafted extensive reports and recommendations to Tokyo for the future administration and development of the islands. (Peattie 1988: 64)

In 1914, the Japanese navy introduced the game of baseball to Chuukese as a ‘substitute for war’ and ‘transformed a bellicose island society into a peaceful one’ (Murdock cited in Brown 1991: 51). Another view of the administration of Micronesia under the Japanese navy can be found in a letter from a F.J. Woodward of Sydney to Reverend E.F. Bell of the American Board of Commissioners for Foreign Missions in Boston (Woodward 1917). Woodward was conveying to Bell information he obtained from a Captain I.R. Handley of the Burns Philp Company who spent four months in the Marshall Islands trading for the company and taking supplies to missionaries. In part, the letter states:

One of the native chiefs on Arno was condemned to the ‘thumb screw’, because he refused to concede to the wishes of the Japanese. A woman was publically beaten for insinuating that a Japanese would steal. An old [Marshallese] man from Ebon called on Miss Hoppin and was sitting talking to her in front of her house inside her fence. A Japanese official came along and dragged the old man out of her place of residence and beat him all the way down the street. The natives are hired to work and sent away unpaid. Lands are requisitioned at will by the Japanese, and any produce thereof taken without leave or license. Old time heathen dancing is encouraged. Immorality is worse than ever. Everyone knows that the old conditions under the Germans were not the best morally on Jaluit, but things are many times worse now. All religious work is at a standstill now. There is a high death rate amongst the native children, in particular infants, because of some disease that has been imported by the Japanese.

While the letter exhibits a certain religious and anti-Japanese zeal, it does provide a first hand account of what was happening in the Marshall Islands and therefore what was most likely occurring in other parts of Micronesia under Japanese navy administration. At the bottom of the letter is a handwritten note from the author: ‘As Japan is an ally of Great Britain nothing is allowed published here [in Australia] that would be detrimental to her and also nothing may be published that will effect the trading between Japan and Australia’. In March 1922, a Japanese civilian administration named *Nan’yō-chō* (South Seas Government) took over as per the League of Nation conditions, with a Governor based in Palau.

The Japanese mandated islands under civilian rule

Article 22 of the Covenant of the League of Nations identified the provisions for Japan and the other nations to administer the former German territories, including Micronesia. Very briefly it concluded that the territories and people be entrusted to developed nations as ‘a sacred trust of civilization’. It prohibited human abuses, the trading of weapons, sale of liquor, establishment of military or naval bases, and the military training of indigenous people, other than as police. In the

case of the Pacific Islands and Southwest Africa they were best administered as a Class C Mandate 'owing to the sparseness of their population or their small size, or their remoteness from the centres of civilization, [they] can be best administered under the laws of the Mandatory [Japan, Australia, etc.] as integral portions of its territory, subject to the safeguards mentioned in the interests of the indigenous population' (Clyde 1967: 34-35).

In the first annual report from *Nan'yō-chō* in 1922, it was reported that the South Seas Naval Garrison was abolished, the Japanese navy had withdrawn, and no military bases were being maintained in Micronesia (ABCFM 1923: 12). A hierarchy of superintendents, police inspectors and constables, assisted by native police and a court system using Japanese judges was established to maintain peace and order (ABCFM 1923: 2). A number of interesting points were also made in the report on how the Micronesians were to be governed.¹⁹ Firstly, in regard to indigenous chiefs, *Nan'yō-chō* developed regulations for Native Village Officials in which 'defined the duties and powers of the Village Chiefs and Vice-Chiefs ... They are thus given opportunities gradually to take part in the administration with a view to facilitating the acquisition of their administrative knowledge and the elevation of their position' (ABCFM 1923: 4). Interestingly, given that under traditional law the chiefs were already at the peak of power, under a Japanese system their power was reduced to fit into the Japanese system. Village chiefs and vice-chiefs were also appointed by *Nan'yō-chō*, some were traditional chiefs, and some had 'no legitimacy in a traditional sense' (Peattie 1988: 76). They were part of the Japanese bureaucracy at a very subordinate level. A chief in Pohnpei later recalled, 'The Japanese policeman gave the orders; I was forced to see that they were carried out' (USA Navy cited in Peattie 1988: 76).

Nan'yō-chō also noted in the League of Nations report that there has been no importation of guns or munitions (ABCFM 1923: 11). This was to satisfy conditions of the mandate but it could have also been a regulatory measure the Japanese used to curb violence against Japanese traders and inter-lineage or village warfare, unlike the earlier German period when Japanese traders were importing guns and munitions. It was also reported that *Nan'yō-chō* took no action against, interfered with, or suppressed religious freedom, although this contradicts the evidence from Captain Hanley (ABCFM 1923: 12; Woodward 1917).

¹⁹ This was an official report by the Japanese government and which would have been written to satisfy the League of Nations and therefore may not be an accurate record of what existed in Micronesia.

There were three Catholic and three Protestant mission schools and they probably had the most influence in changing the clothing worn by Micronesian women to 'a garment resembling the nightgown worn by western ladies' (ABCFM 1923: 15; Clyde 1967: 41). It was also noted in 1934 that Chuukese made holes in the 'ear-lobes and gradually enlarged until large rings made of shell may be suspended from them ... These practices are today, however, slowly disappearing' (Clyde 1967: 41) (Figures 4.7 and 4.8). Japanese were suppressing traditional dances and feuds were rare. While Clyde (1967: 44) acknowledges that because of the climate and abundance of food 'work ceases to be a virtue', he also provides an interesting and relevant view on what Micronesians may have been thinking:

Why is it that the Spaniard, the German, the American and the Japanese cannot leave me alone? Why must I take their religion, load and unload their cargoes, build roads, clear the jungle and forsake the dress of my ancestors? [to which Clyde answered] Beyond these questions the thoughts of the Kanaka [Micronesians] probably do not go, yet it would be strange indeed if his simple mind were not confused by the succession of sovereignties to which in the past forty years he has owed allegiance.

Whilst on the one hand it provides a typical colonial view of indigenous Micronesians, it could also provide an accurate summation of what Micronesians were thinking.

It is also interesting to note another colonial source of information on Chuukese at this time, but prepared by the U.S. military as background material in 1944 (Joint Intelligence Center Pacific Ocean Areas (JICPOA) 1944a): 'The natives of Truk are dark Micronesians. They are not industrious and retain many of their primitive customs. The younger natives are required to attend Japanese schools up to the fifth and sixth grades. However, most of them return to their native homes and take up their old customs. In 1935 a number of the natives were working for one to two yen per day (U.S.\$0.30-0.60c) for the Japanese'.

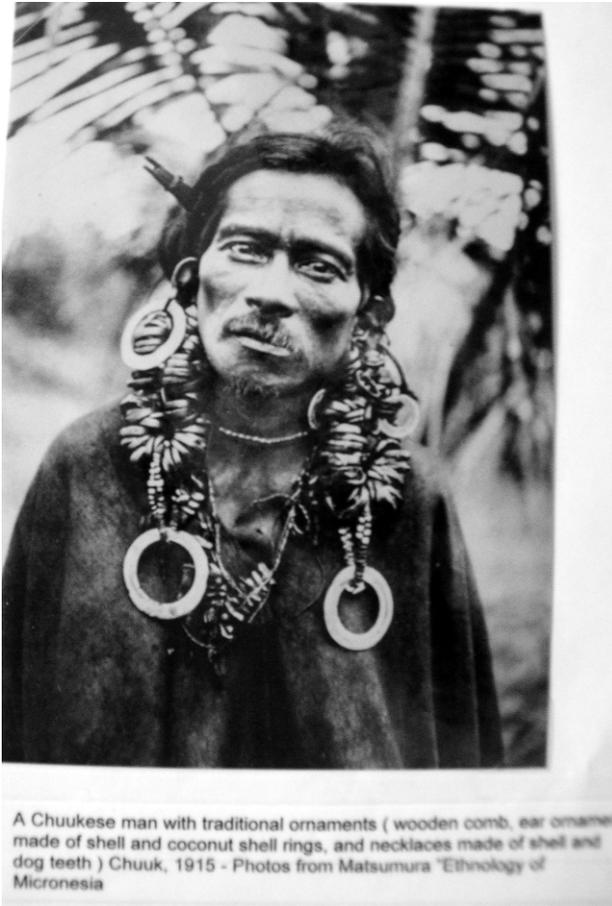


Figure 4.7: Male ornamentation, 1915
(Source, *Micronesian Seminar*, OJ-077).

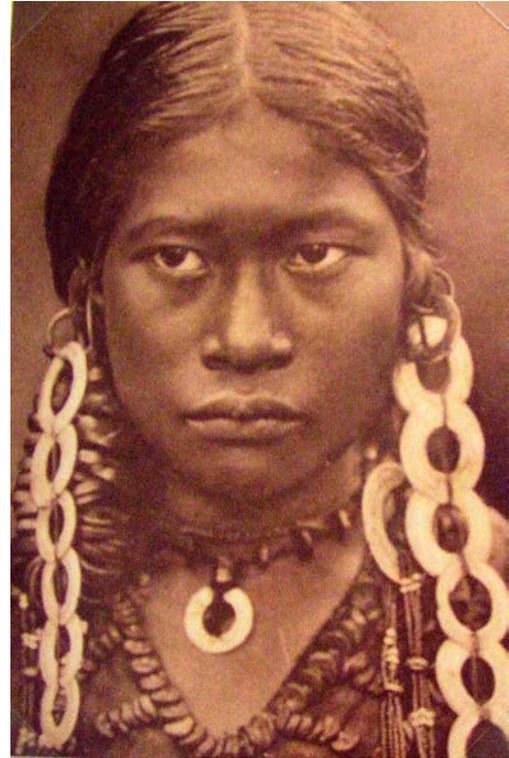


Figure 4.8: Female ornamentation
(Source, *Micronesian Seminar*, ESE 01-017).

The developing Japanese commercial and government activity in Micronesia was moving swiftly along in conjunction with Japanese migration. Table 4.1 provides some figures on this migration in comparison with Micronesian and Chuukese populations. It is worth noting that the indigenous population changed little in Chuuk Lagoon from 1920 to 1940 (considering the 1940 figure included an additional 5,000 from outside the lagoon). In other regions of Micronesia, there was a slight increase, but in Yap there was a decrease during the period from 1920 to 1930 of 1,800 (Clyde 1967: 150). In regard to Japanese immigration, reasons for this increase are many, including an earthquake in 1923, crop failures and a financial crisis in Japan, and the need for both men and women to work in *Nan'yō-chō*, and as merchants from 1922 onwards. These migrants came from a number of different regions including mainland Japan and Okinawa, in search of work in the sugar fields in the Marianas and as fishermen in Chuuk, Saipan and Palau (Hezel 1995: 186-191; Peattie 1988: 157-160). The Marianas took 75% of the Japanese migrants to 1934 (Clyde 1967: 153) but this changed in the latter part of the 1930s as they moved into the Carolines for other commercial

activities. It is also interesting to note the significant increase in the number of Japanese in Chuuk in 1940 and 1945 which is primarily related to the military presence, and which is discussed in more detail in Chapter 5.

<i>Date</i>	<i>Micronesia (incl. Chuuk)²⁰</i>	<i>Chuuk Lagoon</i>
1920		9,822 Chuukese; 589 Japanese
1922	48,481 Micronesians; 3,406 Japanese; 61 Foreigners (incl. 35 missionaries)	
1925		9,834 Chuukese; 377 Japanese
1930	49,695 Micronesians; 19,385 Japanese	10,888 Chuukese; 735 Japanese
1933	49,935 Micronesians; 32,214 Japanese; 104 Foreigners	15,020 Chuukese; 1,204 Japanese ²¹
1935	50,573 Micronesians; >50,000 Japanese	10,344 Chuukese; 1,978 Japanese ²²
1940	50,648 Micronesians; 77,000 Japanese	14,735 Chuukese; c.4,000 Japanese
1942	Unknown, Micronesians; >96,000 Japanese	
1945	c. 50,000 Micronesians; 147,000 Japanese	9,082 Chuukese; 39,945 Japanese

Table 4.1: Population of Micronesia (including the Marianas and the Marshalls) during the Japanese period. Sources: ABCFM (1923: 19), Clyde (1967: 148-153), FSM Census (1994)²³, Hall and Pelzer (1946:7), Hezel 1995: 190), Peattie (1988:160-161), Taeuber and Han (1950), and Thompson (1945: 2).

Japanese education

To provide an education to Japanese migrants and the indigenous population, *Nan'yō-chō* developed its own school system, public schools for indigenous Micronesians, of which there were 17 in 1922, and 23 in 1934; and separate primary schools for Japanese students, of which there were three. Horiguchi Mitsusada, a Japanese Governor for the mandated islands in the 1920s described the education of the indigenous Micronesians as an 'ungrateful task [given the] intelligence of the inhabitants and the geographical position of this territory' (cited in Clyde 1967: 107). Teachers were from Japan teaching in the Japanese language and indigenous assistant teachers helped in the public schools. Local languages were ignored and even denigrated (Peattie 1988: 94). The Japanese language policy was, according to Clyde (1967: 113), 'based on the assumption that the diversity and poverty of the native dialects render them unsuitable as a common medium of expression'. For

²⁰ Japanese figures include other East Asian nationals, Koreans, Okinawans and Taiwanese.

²¹ Figures for 1933 and 1940 include the outer islands and the lagoon. At that time the population of the outer islands was known to be about 5,000.

²² This figure obtained from the FSM Census 1994 is just for the lagoon. The Joint Intelligence Center Pacific Ocean Areas (JICPOA 1944f) documented the population of Chuuk in 1935 to be '15,292 natives, 1,032 Japanese and 24 foreigners' which would include the outer islands.

²³ FSM 1994 Census at www.fsmsgov.org/info/people.html accessed 28 April 2007.

indigenous Micronesians, the schooling was three years of elementary school and two years at a higher school on one of the larger islands (Figure 4.9). The most promising of these students were then selected to attend the carpentry school in Palau (ABCFM 1923: 13-14). However, as students ‘never learned to read much more than *kana*, the simple phonetic syllabary, and thus, unfamiliar with any *kanji*, the Japanese ideographs, [they] were unable to read either a newspaper or the regulation promulgated by the South Seas Government’ (Peattie 1988: 94). Of the 100 mission schools that existed during the German times, only 11 remained in 1924 (American and Japanese missions) part of the reason being the expulsion of the German nationals.

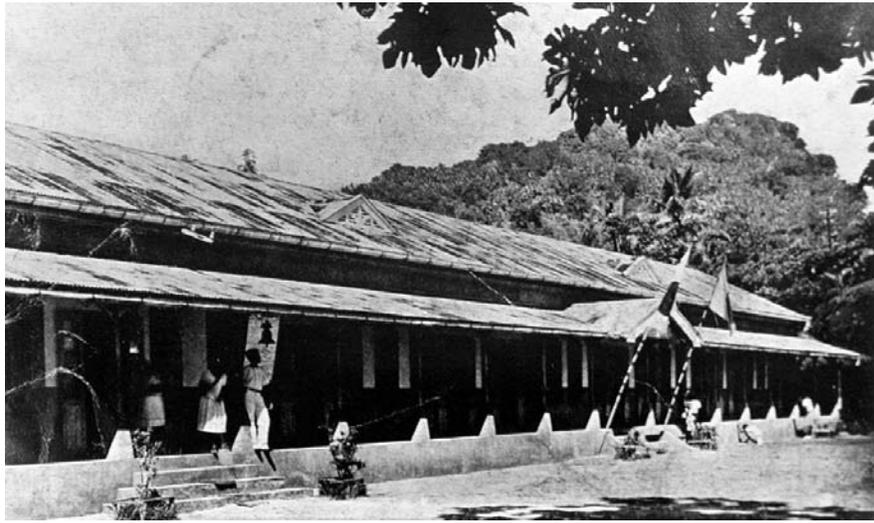


Figure 4.9: Chuuk School on Tonoas. It is now a Tonoas Municipal office building (Source, *Micronesian Seminar*).

Land ownership

Nan'yō-chō also regulated land ownership. Although recognized, indigenous land owners could not sell, purchase, alienate or mortgage land without *Nan'yō-chō* authority, reportedly to stop non-indigenous people acquiring land cheaply (ABCFM 1923: 15). Land owned by the Germans was transferred to the Japanese government after 1919 and Clyde (1967: 99) provides some useful statistics about land ownership in 1932. Out of a total land area for all of the mandated islands of 216,000 hectares, 70,000 hectares was considered arable land and the Japanese government owned land amounted to 79,600 hectares. *Nan'yō-chō* carried out a survey of all the land on the islands and while Clyde (1967: 99) heard from some indigenous Micronesians that they were being deprived of some of their traditional lands, he was also informed by the American Mission Board of Boston (which owned considerable tracts of land on the islands) that ‘no native had been deprived of his land unjustly’.

Economic development

A poll-tax was introduced, initially Yen (¥) 20 for non-indigenous, ¥10 for indigenous Micronesians but was amended to a sliding scale in 1922 and again in 1931 and based on wages. In 1922, the maximum daily wage for a Japanese was ¥6.50 and for a Micronesian, ¥1.50 (ABCFM 1923: 8). Also in 1922, Business Tax—most, if not all of the businesses were Japanese—was abolished, as were import and export duties, and immigration laws, ‘there being practically no people desiring to emigrate to such a group of remote and lonely isles’ (ABCFM 1923: 4-13). Such laws would have been very encouraging for those Japanese wanting to escape the poor economic situation in Japan at that time. The statements made in the official report to the League of Nations by the Japanese government are incongruous with the other evidence on migration for instance, evidence that would not have been made available to the League of Nations.

In 1917, copra was the primary export commodity, followed a long way back in value of ‘Takese’ shells but which greatly diminished in 1920-21. In 1932, sugar was the major export earner, being grown in Saipan, Tinian and Rota in the Mariana Islands, followed by copra, phosphate, and dried bonito (Clyde 1965: 134). Okinawan fisherman migrating to Chuuk commenced the bonito fishing industry with over 1,500 fisherman employed in the industry there in 1937 and together with Palau and Saipan, the export value of bonito climbed substantially (Hezel 1995: 188) (see Figure 8.17). Rice was the leading import, followed by cloth and manufactured items, meat, fish, fruits, tinned foods and tobacco. With the small number of Japanese in Micronesia in 1922 (3,406), some of these goods must have been destined for Micronesians indicating traditional foods and clothing were starting to be replaced. While small quantities of guns and weapons were imported in 1917-1918, they are not recorded in later years in the report to the League of Nations (ABCFM 1923).

In 1932, Clyde (1967: 85-86) reported that the Japanese government subsidies proved unnecessary as a great increase in export duties and other receipts, and a similar amount from the sale of phosphate from Anguar balanced the revenue against expenditure. Clyde (1967: 88-89) draws on the *1932 Annual Report to the League of Nations* and the *October 1931 Minutes of the League of Nations, Permanent Mandates Commission* to discuss the expenditure for the ‘direct benefit of the natives’, where it is reported that two-thirds of educational expenditure, one-fifth for general administration, and two-thirds for meteorological observatory are devoted directly to native benefit. It is difficult to see how indigenous Micronesians would benefit from Japanese meteorological observations.

Changes made under Japanese administration

Some of the administrative regulations were not new to the Micronesians as Germany had previously introduced schools, a poll-tax, and begun to alienate Chuukese from their lands. Although they were alien concepts to subsistence living Micronesians, governed by a chief and lineage and clan customs, some were accepted, some were not. Given the vigour and size of the Japanese bureaucracy introducing the systems and the ineffective restrictions placed on it by the international community, Japan was able to dominate Micronesia and rule as a colonial power (Peattie 1988: 61). Clyde (1967: 114-115) also sums it up in a similar colonial manner:

Into the mandate have gone 30,000 of her nationals [Japanese], a vigorous and energetic people—government officials, business men, plantation farmers and laborers. They have and are transforming these tranquil tropical islands by an intense agricultural and commercial development. The native looks on and wonders. It is all foreign to his nature, his habits and his desires. But as in every colonial outpost he must adjust himself to the modern tempo or be crushed by its ever-growing momentum.

Put another way, Japan wanted to ‘Japanize the islanders through education, propaganda, intermarriage, and in general the promotion of cultural changes’ (Mirrer 1971: 23). Although Hezel (1995: 212) concluded it went further; Micronesians found themselves at the lowest level of a two-tiered society with Japanese nationals at the highest—‘not assimilated but displaced’.

Nan'yō-chō administered Micronesia until 1939 when the Japanese navy required control and they commenced an airfield construction program that ‘marked a quantum jump in Japan’s intent and preparations to use Micronesia for war purposes’ (Peattie 1988: 250-251). Some of the issues that occurred during the 1930s that brought this to a head included the revision, by Japan, Britain and the U.S., of the 1922 Naval Arms Limitation Agreement, which limited the size of military vessels for the three countries. A number of factions in the Japanese government were furious about the outcomes—the U.S. and Britain maintaining their substantial lead in the tonnage of military vessels over Japan.²⁴

Another significant issue developed in China where the Japanese army fabricated an incident on the southern Manchuria railway line on 18 September 1931, providing them with an excuse to invade Manchuria and establish a puppet state. The League of Nations subsequently condemned Japan for its aggression. However, Japan withdrew from the League of Nations in 1933 and the Japanese army expanded its control in northern China.²⁵ Clyde (1967: 159-201) discusses in some depth the

²⁴ Japanese naval strength was restricted to about 60% of the USA and British strength (U.S.SBS 1945a: 324)

²⁵ <http://www.aplconference.ca/apwbackgrounder.htm> accessed 20 October 2006

issue of whether Japan should have relinquished its Mandated islands of Micronesia, because it withdrew from the League of Nations. The legal debate came down to an interpretation as to who had the status to rescind Japan's mandate, the League of Nations, or the associated 'Principal Allied and Associated Powers' from World War I who formed the League of Nations. Unanswered, Japan continued to control Micronesia as well as provide reports to the League of Nations. At the same time there was considerable debate in the League of Nations about harbour constructions occurring in Saipan. It was reported in the *Journal de Genève* that the constructions were for a submarine base (Clyde 1967: 161). Japan denied this report and provided evidence that harbour constructions had been in progress since 1926 to allow for larger merchant ships to access the sugar that was grown there and exported to Japan. One of the responses from the debate in the League of Nations was published in a Tokyo weekly newspaper, the *Japan Chronicle* (6 April 1933 cited in Clyde 1967: 188) and in part it read: 'If, in spite of this strong national sentiment, either the League of Nations or the former Allies should dare to attempt to take them from Japan by force an armed struggle would surely ensue, resulting most obviously in a world war'.

During the 1930s, Japan, primarily because of American suspicions, allowed a small number of foreigners to tour Micronesia and report on what they found, particularly regarding any evidence of a military build-up. Paul Clyde, professor of political science at the University of Kentucky and who is extensively cited in this chapter (the 1967 edition is a reprint of his 1935 publication) made, as Peattie (1988: 246) concluded, 'the most detailed and unbiased analysis of the Japanese administration of Micronesia published before World War II' and found as late as 1934, that 'no evidence could be observed to indicate Japan has violated Article 4 [that military, naval bases or fortifications shall not be erected] of her mandate' (Clyde 1967: 222). In 1935, American globe-trotter Willard Price visited Micronesia and made a similar report (Price 1936), although he changed this view in his later 1944 book (Peattie 1988: 342, note 38). In 1936 the naval limitations system between Japan, Britain and the U.S. collapsed. The U.S. immediately commenced a naval construction program but it took Japan two to three years before it could 'mobilize her limited national resources' to build the *Yamato*-class super-battleships, aircraft carriers, submarines and destroyers (Yokoi 1986: 509). At about this time in Micronesia the Japanese navy assisted *Nan'yō-chō* to construct four air, communication and fuel storage facilities, one being the airstrip on the small island of Etten, south of Tonoas (see Figures 4.10 and 4.11). In 1937, Amelia Earhart disappeared on her flight from Lae in New Guinea to Howland Island, a flight which could have taken her over Micronesia, although Peattie (1988: 249) states 'she most assuredly did not', but there are some theories that she 'was shot or forced down by the Japanese, then captured and

executed in order to prevent her from revealing to the world her knowledge of Japanese perfidy' (Peattie 1988: 247).



Figures 4.10 and 4.11: The island of Etten—where the surrounding reef was reclaimed and built into a Japanese airstrip and Chuukese were moved off island (Source Micronesian Seminar and Bill Jeffery 2002).

There was considerable political and military activity occurring in Japan at this time, particularly with the military playing a much larger role in its foreign and domestic policies. Young army officers were having a great impact, killing politicians, dictating government policy and determined to expand further into China (Toland 2003). The nationalistic fervor and expansion into China was greatly promoted at school indoctrination lessons (Ienaga 1978: 29-32). Equally enthusiastic, the Japanese navy wanted to expand further south to the resource rich islands of Indonesia, Malaysia and Borneo. Japan now termed Micronesia, the Inner South Seas (*uchi Nan'yō*), unlike their earlier description of simply being the South Seas, as a base to prepare the advance into south-east Asia, which was now designated the Outer South Seas (*soto Nan'yō*) (Peattie 1988: 244) (Figure 4.12).

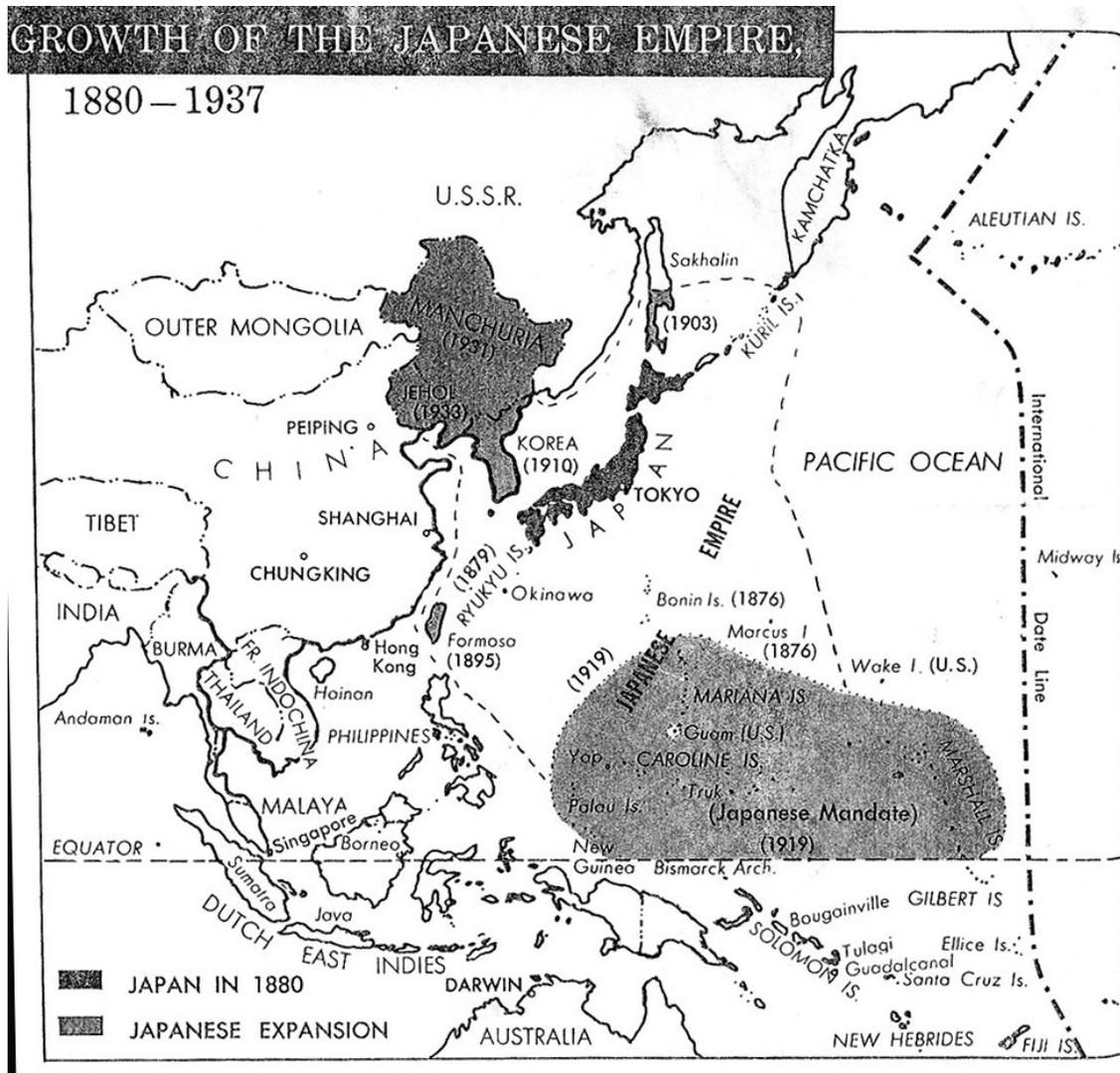


Figure 4.12: Japanese expansion until 1937 (Nevitt-Dupuy 1962).

By 1939, Japan had gone a long way toward Japanizing Micronesia. The large number of Japanese migrants who settled the islands, intermarried and set about making a profitable and comfortable life were encouraged and supported by the Japanese government. Micronesian owned land was acquired by *Nan'yō-chō* and Japanese businesses. Schools using the Japanese language were established for young Micronesians, and many facilities were established in towns such as Dublon Town on Tonoas that provided Japanese and Micronesians with a range of services not seen before, such as hospitals (Figure 4.13).

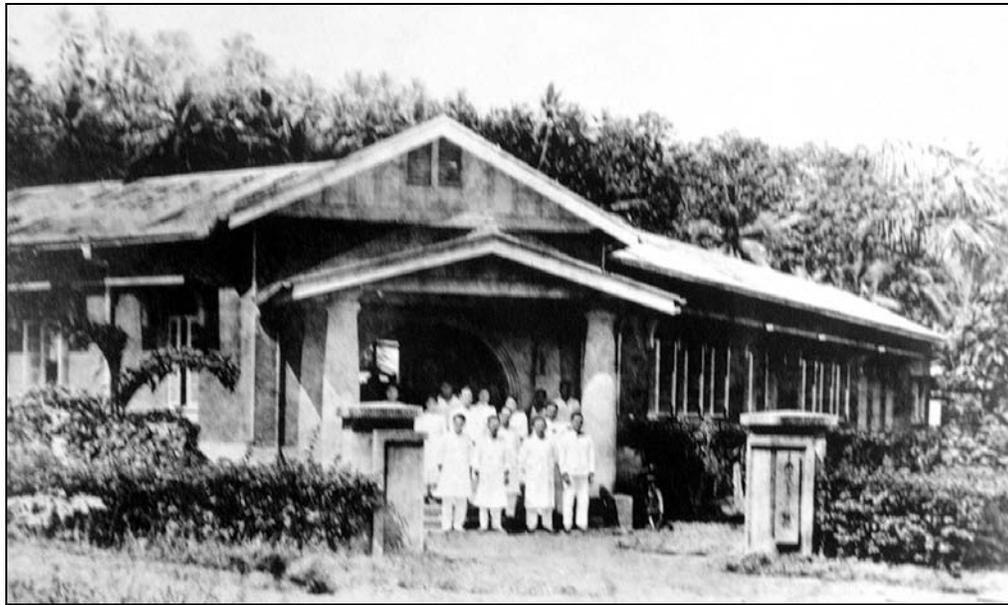


Figure 4.13: Chuuk civilian hospital on Tonoas (Source, Micronesian Seminar).

Village chiefs were relegated to serving Japanese officials and enforcing their policies amongst their own people. Before Japanese times, much of the influence from colonialization had not been in the physical signatures of colonialization, but in the restructuring of indigenous social systems, alienation of land, language and ways of life. Now in Japanese times, the landscape was also changing dramatically. This system was condoned by other nations of the world in 1922 through the League of Nations as Micronesian was deemed to be ‘inhabited by peoples not yet able to stand by themselves under the strenuous conditions of the modern world’ and should be ‘intrusted to advance nations’ (Clyde 1967: 34).

Chapter 5: War and the Japanese military

Introduction

This chapter examines further Japanese expansion into Micronesia and Chuuk, beginning with preparations for war and in context with broader Japanese political and military issues. It investigates the implementation of the war and the role Chuuk played. The chapter is also a departure from what has been investigated in previous chapters, in that it is the first in which specific attention focuses on the role of Japanese shipping activities. It provides details on the large build-up of Japanese military facilities on many islands, and the cost that these facilities and the American bombing had on Chuukese people.

The Japanese Fourth Fleet

In 1939, the Japanese navy established the Fourth Fleet, which was specifically assigned to guard the Inner South Seas and was initially sent to Micronesia to build up airfields, communication centres and fuel centres (Peattie 1988: 251)¹. Four regional headquarters were established in Saipan, Palau, Chuuk (Eastern Branch Office) and the Marshalls, each with a military force, a 'Base Force' of a few thousand men.² Two thousand Japanese convicts were also sent out to these bases to help construct the airfields. This included Weno in Chuuk, where Chuukese as well as 12,000 Koreans were forced into constructing Japanese military facilities (Poyer et al. 2001: 48). Chuuk was established as the Fourth Fleet headquarters in February 1941, when 'the first warships and shore defense units began to take up positions at bases on Saipan, the Palaus, Truk, Ponape [Pohnpei], and key atolls in the Marshalls' (Peattie 1988: 253).

International developments

In the latter part of the 1930s, issues were developing outside of the Pacific but very much in Japan's interests and which would impact Micronesia. Ienaga (1978) identifies the following:

a. Japan's pact with Germany in 1936 concerning the spread of Communism from China, supported by England in 1940 after the closure of the Burma Road and tolerated by the U.S.;

¹ The Fourth Fleet in 1941 comprised the following ships, three cruisers, 13 destroyers, 16 submarines and depot ship, an air flotilla, minelayers, armed merchant ships, a seaplane tender, hospital ship, repair ship and cable ship (Bailey 2000: 12).

² In 1941 the Fourth Base Force also comprised of a number of ships including gun boats, minesweepers, subchasers and minelayers

- b.** The war in China began in earnest in the summer of 1937;
- c.** World War II which began in 1939 following Germany's invasion of Poland and the British declaration of war against Germany;
- d.** Japan's desire to protect its northern border of Manchukuo against the Soviet Union, though after an unsuccessful battle, the Japan-Soviet Neutrality Pact was signed in April 1941. Preparation for a war with the Soviet Union continued with the raising of the largest army mobilized, comprising 700,000 men;
- e.** The Japanese army's desire to make an alliance with Germany, to which the government acquiesced, signing the Tripartite Treaty of Alliance with Germany and Italy in September 1940.

With Germany's successes against the Allies in Europe, Japanese navy officials enthusiastically advocated for moving south. Also, some argued that in order to fight a protracted war in China, there was a need to control the natural resources of south-east Asia and the south-west Pacific.

Developments in the Asia / Pacific region included:

- a.** In June 1940, 'the first public expression [by the Japanese government] of the policy of expanding to the south ... [the] New Order in East Asia' ('Kokusai jōsei to teikoku no tachiba' cited in Ienaga 1978: 130);
- b.** Japanese occupation of northern Indochina (present-day Vietnam) in September 1940 and southern Indochina and parts of Thailand in July 1941, and unsuccessfully demanding oil supplies from the Dutch East Indies;
- c.** Embargos placed on Japan by the U.S. on the export of oil and steel, and the freezing of Japan's assets by the U.S., Britain and Holland;
- d.** In March 1941, the development of the 'Greater East Asia Co-Prosperity Sphere' by Japan, centred around Japan to create Asian co-operation and to 'liberate Asians from American and British imperialism' (Ienaga 1978: 153-154);
- e.** With the German advance into Russia stalling, Japan prepared to move south instead of north, striking U.S. and English forces.

During the 1930s, the political situation between Japan and the U.S. grew progressively worse. Negotiations between the two governments stalled on some central issues, including the withdrawal of Japanese troops from Indochina and China, and Japan invoking the Tripartite Pact (Toland 2003: 146). Through a number of factors, including mutual misunderstanding, distrust, pride, ignorance, racial prejudice and language difficulties, a settlement could not be concluded (Peattie 1988: 253;

Toland 2003: 146).³ Japan attacked Pearl Harbor on 7 December 1941, the U.S. and Great Britain declared war on Japan the next day. On 10 December 1941, Japan's forces sank the British ships *Prince of Wales* and the *Repulse* and Germany and Italy declared war on the U.S. the next day. What Japan saw as a war between itself, the U.S. and Great Britain and which they designated the 'Greater East Asian War' developed into part of a war that encompassed the world.

Japan's mysterious naval base

Chuuk or Truk as it was known then, played a major role in Japan's navy strategy for the war. During its civilian rule, the Japanese navy had conducted a number of surveys (including marine surveys for the compilation of charts) throughout Micronesia and they had accumulated considerable information on Chuuk, particularly in its value as a naval base (JICPOA 1944b). In his survey of Micronesia in 1934, Clyde (1967: 208-218) looked at all the most likely islands and found: 'The most striking of all is the group of islands known as Truk'. He found Chuuk contained a large lagoon enclosed by a barrier reef, with just a few entrances (and therefore easily guarded). The lagoon, while deep in many places, had a number of submerged reefs, which made navigation difficult, and it enclosed a number of mountainous islands that could contain guns to help defend it. In summary, Clyde (1967: 216) stated: 'In fact, it would appear that attack from the air is the only point in which the natural armament of Truk is vulnerable'. The Japanese (and the Americans) considered that its natural fortifications made it one of the best anchorages in the world and a 'formidable naval base' (U.S.SBS 1947: 2). The Japanese navy had decided on a strategy of using bases like Chuuk for offensive air and surface operations, using a large mobile fleet for the 'decisive battle'⁴ rather than fortifying the bases. This was a recommendation of Vice Admiral

³ After the war, Vice Admiral Nomura Kichisaburo, IJN; former Ambassador to the United States, stated during an interview:

'Japan's governmental structure provided no effective civilian control of her Army and Navy. In the years between the 1931 invasion of Manchuria and the 1941 attack upon Pearl Harbor, the military cliques of Japan exerted a progressively tighter control over the foreign and domestic affairs of the nation. These cliques included groups within both the Army and Navy, but because of the repeated military successes of the Japanese Army in Manchuria and China and the prestige so acquired, and because of the more ambitious and aggressive nature of the Japanese Army leaders, the political position of the Army was ascendant to that of the Navy. The final decision to enter the war and to advance into the Philippines, the Dutch East Indies, Malaya, Burma and to the southeast was, however, made with the full concurrence and active consent of all important Japanese Army and Navy leaders and of almost all her important civilian leaders'. (U.S.SBS 1945c: 384)

⁴ The 'decisive battle' formed a major part of the Japanese naval strategy to defeat the U.S., primarily from the writings of naval historian A.T. Mahan who 'formalized the strategic principles that had propelled Great Britain to naval supremacy' (Parillo 1993: 9). It 'was the only strategic goal [for Japan] right down to 1945' (Parillo 1993: 10).

Inoue Shigeyoshi, Chief of Naval Aviation in January, 1941 and who became the Commander of the Fourth Fleet (Peattie 1988: 254).⁵

Chuuk's military facilities

In addition to the Japanese Fourth Fleet being based in Chuuk, the Imperial Japanese Navy Combined Fleet was also based there from July 1942 to February 1944. A good summary of the facilities, groups, personnel and ships that were established in Chuuk can be found in a number of documents prepared by the U.S. during and after the war. Japanese documentation is scarce, many sources were intentionally destroyed by the Japanese military in Chuuk towards the end of the war (U.S.SBS 1947: 14), while an estimated 90% were deliberately incinerated or misplaced by the U.S. and Japanese governments after the war (Tanaka 1999: 1).⁶ The U.S. military's 'Joint Information Center Pacific Ocean Areas' (JICPOA) Bulletins provide substantial information on Japanese military facilities in Chuuk including details and drawings of Japanese charts gained from their 1942 surveys (JICPOA 1944b, 1944d). The drawings include a sketch of Tonoas showing the undeveloped state of the military facilities to that time (Figure 5.1). They are evidence that Chuuk's military facilities were not greatly developed in 1942 and add support to the Japanese argument that the islands were not being fortified during the 1930s.⁷

JICPOA (1944e) provides much more comprehensive data, including general information on Chuuk geography, population, weather, anchorages, airfields, buildings, and passes through the reef into the lagoon. A number of maps of the lagoon islands show, among other things, navigational information, fortifications and radar, location and types of defensive guns, Radio Direction Finding (RDF)-underwater detection and communications equipment, and airstrip information (see Figures 5.2, 5.3 and 5.4 as examples of maps enclosed in this Bulletin).

⁵ It wasn't until late 1943-early 1944 that Chuuk was afforded better fortification with the arrival of 10,000+ Japanese Army personnel and the installation of many more defensive guns.

⁶ U.S. forces prepared a list of captured documents when they arrived in Chuuk and other documents have been found in the U.S. National Archives (see Chapter 7) and in the Japanese Archives.

⁷ JICPOA (1944f: 9) records: 'Truk is only for minor or emergency repairs to naval vessels' and that at this time there was still considerable activity being carried out to construct repair and maintenance facilities for the navy.

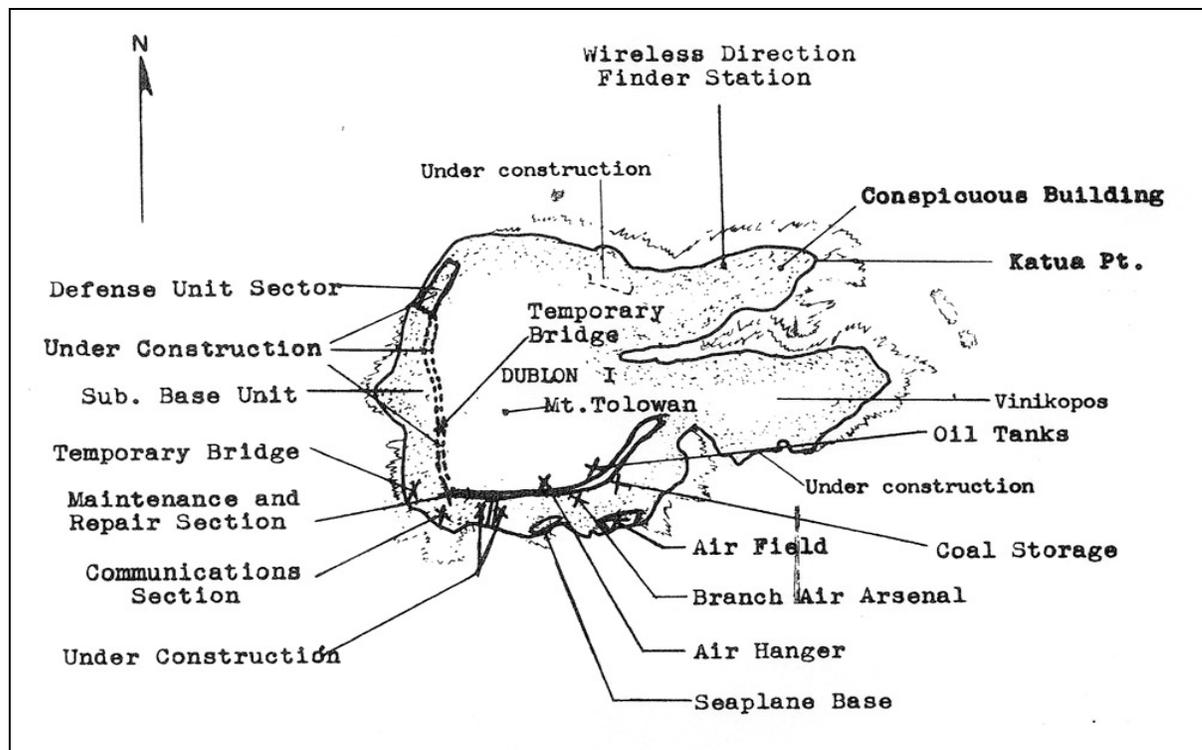


Figure 5.1: Details of the military facilities on Tonoas in 1942 (JICPOA 1944b).

Chuuk had three airstrips on the islands of Weno, Etten and Param (for fighter and bomber aircraft) and two seaplane bases located on Tonoas and Weno. Construction of the airstrip on the island of Etten began in 1934, and was completed in December 1943 (Bailey 2000: 11). It was 1,018 metres in length and consisted of reclaimed land, the only natural part of the island used was the hill that contained the anti-aircraft guns and search light (U.S.SBS 1947: 5) (see Figure 4.10). In February 1944, 365 aircraft were located in Chuuk, with 200 destined for other bases, principally Rabaul. Chuuk Lagoon had two major anchorages, with depths of 45-60 metres. One for naval vessels was located between Weno (Moen) and Tonoas (Dublon) was referred to as the Combined Fleet Anchorage, and the other (south of Tonoas) for merchant vessels was referred to as the Fourth Fleet Anchorage, although vessels did use either.⁸ These vessels were serviced by many small lighters, barges and landing craft as Chuuk had limited facilities for larger vessels to tie up to wharfs or piers. The largest battleships ever built, *Yamato* and *Musashi* of 62,315 tons (*Jane's Fighting Ships of World War II* 1989: 183) anchored in the lagoon regularly along with aircraft carriers, destroyers, submarines, cruisers and other naval craft (Figure 5.5).

⁸ Bailey (2000: 267-269) also refers to a Repair Anchorage, south of the Combined Fleet Anchorage and an Uman Island Anchorage

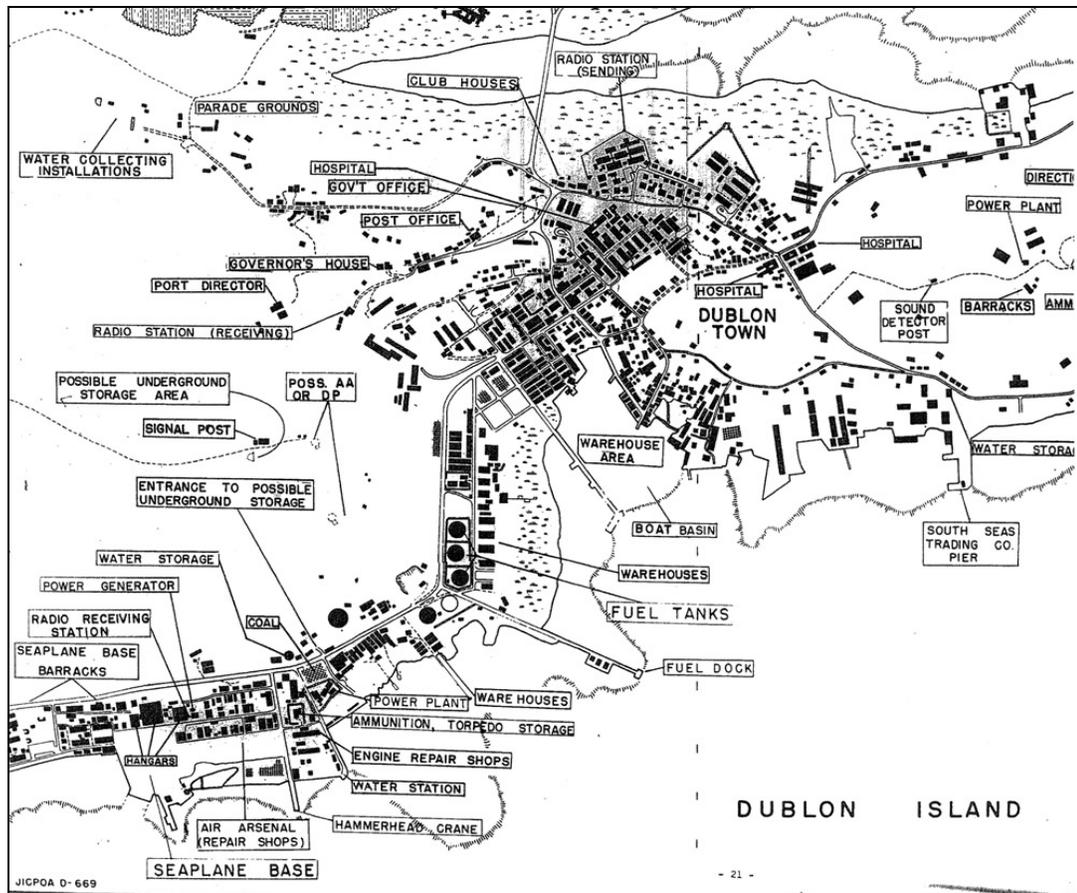


Figure 5.2: The Japanese military facilities around Dublon Town, Tonoas (JICPOA 1944e).

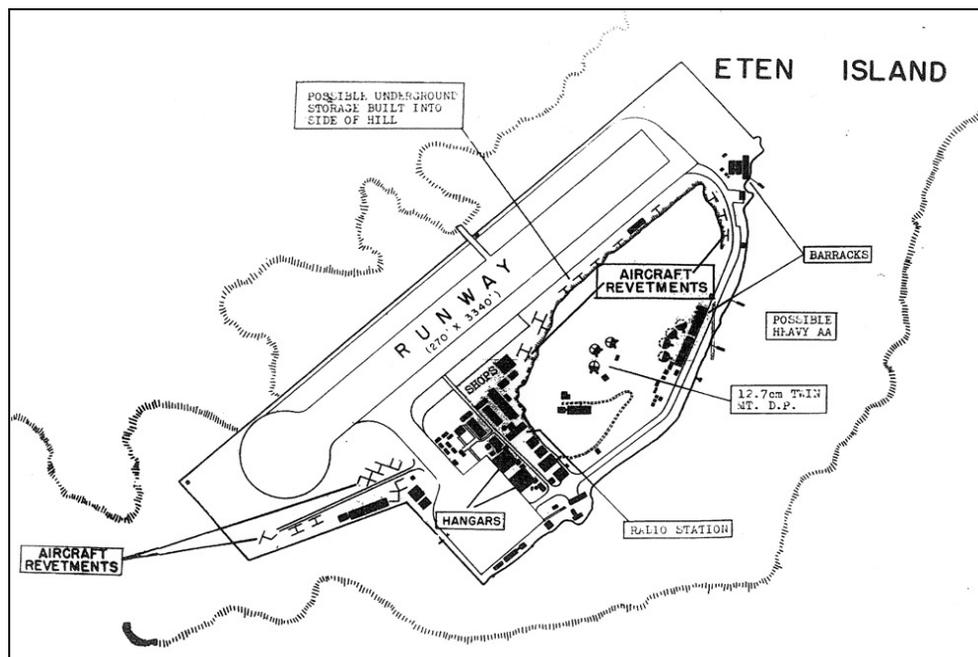


Figure 5.3: The Etten airstrip (JICPOA 1944e).

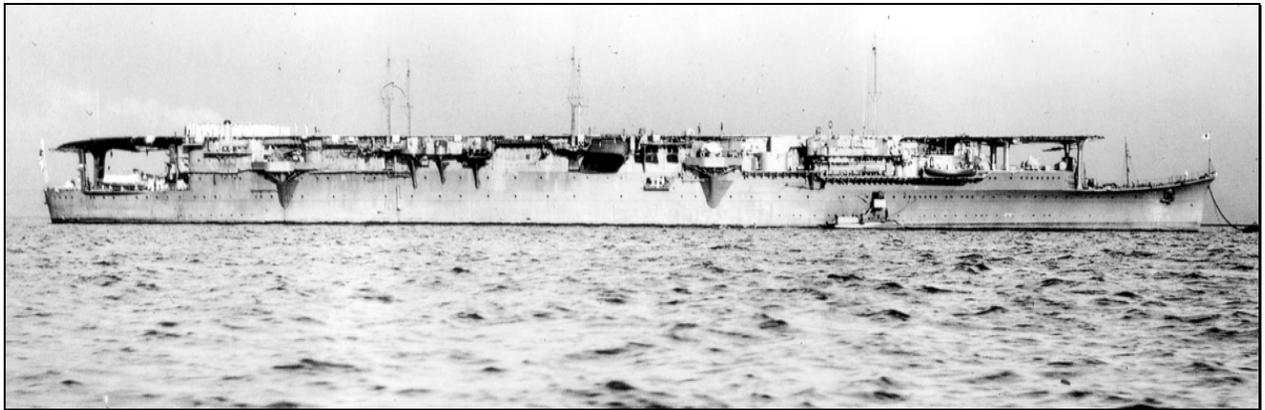


Figure 5.5: The 205 metre long aircraft carrier Zuiho was based in Chuuk (Fukui Shizuo 1994).

Chuuk also contained the Sixth Submarine Fleet located on Tonoas and which was still in the construction stage in early 1944 (JICPOA 1944g: 14), the Fourth Ship Repair Department including a 117 m x 16.7 m (2,500 tons) floating dock, and the Fourth Fleet Supply Base, Base Force, Engineers and Transport Departments. It also contained eight one-man torpedo bases for surprise ‘suicide’ night-time attacks and arsenals for all the munitions that the warships and aircraft required, the majority being located on Tonoas (U.S.SBS 1947: 4; Bailey 2000: 87-88)⁹ (Figure 5.6). Tonoas also accommodated the fuel and oil storage, being over 60,000 tons and contained in large above-and below-ground steel tanks.

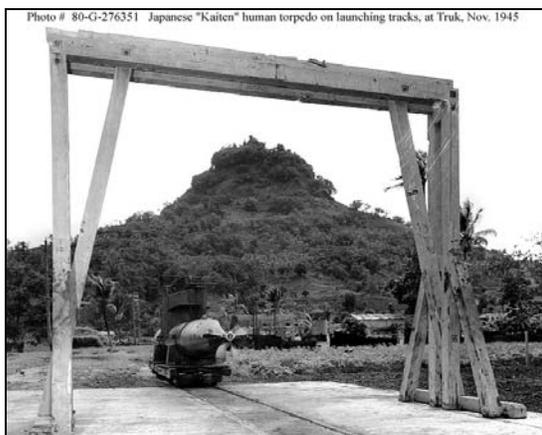


Figure 5.6: A Japanese suicide torpedo on Tonoas. Source, <http://www.history.navy.mil/photos/> accessed 23 November 2002.

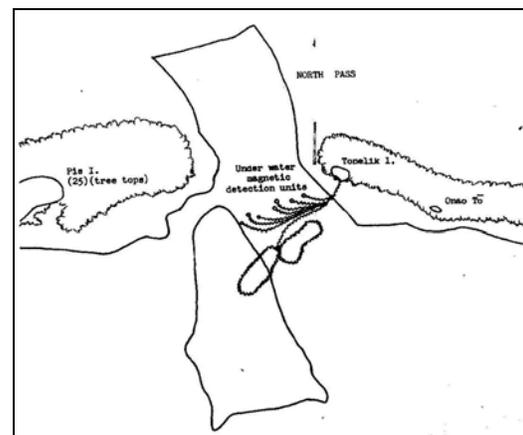


Figure 5.7: Underwater detection device in the North Pass (JICPOA 1944f: 12).

⁹ Denfeld (1981: 140) documents a total of 12 ‘suicide torpedo units’ of which three were ‘incomplete’

The Japanese had five long range and five short range communication facilities in Chuuk, with the facility on Tonoas being the communications centre and part of the Japanese network from Tokyo to Wake Island. It was reported in JICPOA (1944f: 12) that some entrances to the lagoon were mined; the 'North Pass is protected by controlled mines and there are underwater protection devices at South Pass' (Figure 5.7).

Tonoas, with over 1,200 hundred buildings had the greatest concentration of buildings of any island, which were used as offices, warehouses, magazines, personnel shelters, barracks, government buildings, maintenance and repair facilities, Dublon Town for civilians, a fish cannery (which was established by Okinawans and *Nan'yō-chō*), a saltwater distiller, and hospital facilities (JICPOA 1944f: 10). A small number of purpose-built buildings were used for Japanese 'comfort women' and it is estimated that 300 women were located in Chuuk, primarily on Tonoas. Japanese construction teams assembled all buildings. The military headquarters, communication and bomb storage buildings were constructed using a reinforced cement compound for the floor, walls and roof (Figure 5.8 and 5.9). Other buildings such as barracks and warehouses were of prefabricated timber walls and tin roof sections imported from Japan and placed on concrete foundations (Figure 5.10). Other facilities that the Japanese established, especially on the most active military islands, were water tanks, roads, causeways, piers, wharves and docks. The major lagoon islands were connected with a submarine communication cable, and all islands contained a range of defensive facilities including pillboxes equipped with machine guns located around the coastline and large coastal defence guns and anti-aircraft guns established on strategic hilltops, established primarily by the army after January 1944 (Spennemann 1994: 7) (see Figures 8.64 and 8.65). At this time the Naval Base at Chuuk was under the command of Vice Admiral Kobayashi Hitoshi as well as a Civilian Governor for the islands.¹⁰

¹⁰ At the surrender of Chuuk in September 1945, the civilian Governor was Aihara Ariko

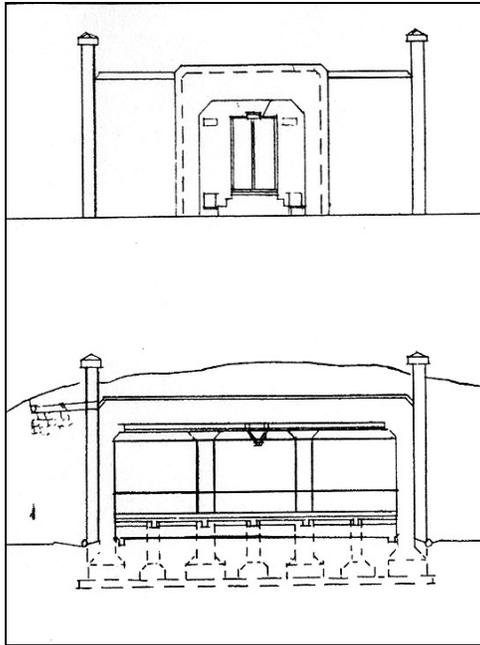


Figure 5.8: 'Bomb storage building on Namur Island', similar to those in Chuuk (JICPOA 1944h: 39).



Figure 5.9: Entrance to the underground aircraft store on Tonoas (Photograph by Bill Jeffery, 2001).

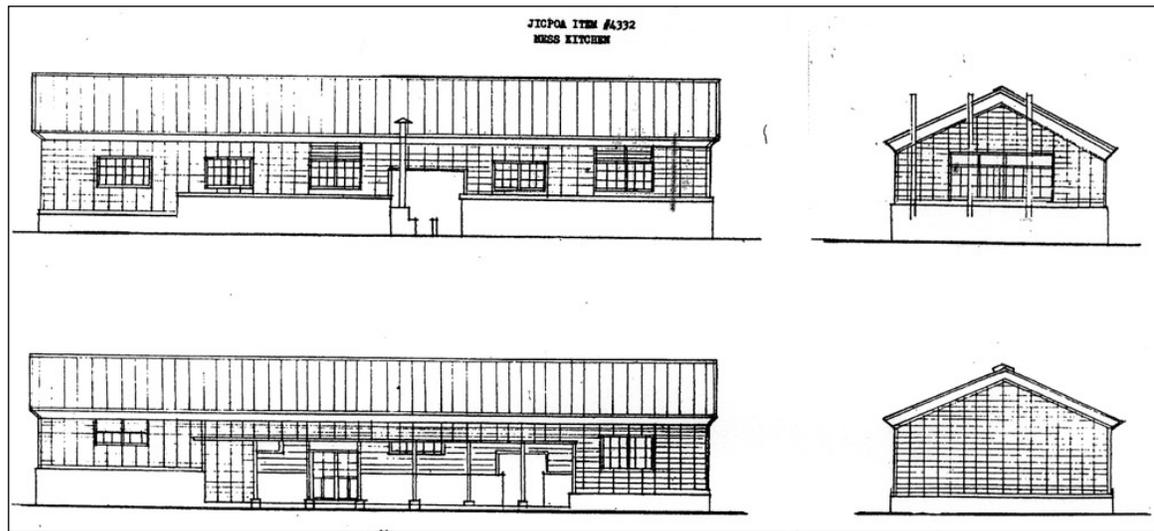


Figure 5.10: 'A Barracks and Mess Kitchen' from 'Kure Naval Construction Branch', similar to those in Chuuk (JICPOA 1944i: 34).

Japan's merchant fleet

An important feature of Chuuk was that it provided a safe and strategically located base for the Imperial Japanese Navy's warships, merchant ships and aircraft in its offensive operations in the south-west Pacific. I want to elaborate on the merchant ships in particular, given that the majority of ships sunk at Chuuk during the war were merchant ships. About 250,000 tons of merchant ships

were sunk in Chuuk in February, 1944 and together with a similar amount being sunk by U.S. submarines in the same month, this amounted to 548,376 tons, 'over 10% of all the merchantmen afloat when the month began ... It was a disastrous month for Japan's merchant marine' (Parillo 1993: 137). It was the largest loss of merchant marine tonnage for any one month for the whole war (United States Navy (U.S. N) 1952a: 171-240). Parillo (1993) in his book on the *Japanese Merchant Marine in World War II* provides a good analysis of the importance of the Japanese merchant marine, the reasons behind their losses, including the great success of the U.S. submarines in destroying these vessels as well as how the Japanese tried to combat the losses. The strategy of having a 'decisive battle' to determine who wins the war meant Japan focused its attention largely on its naval vessels, including its submarines, being used in this battle. The other option for these vessels was to guard Japanese merchant vessels, and which the Japanese navy did not do well. This lack of an effective strategy to defend the merchant marine during voyages, and the continual bickering between the Japanese army and navy, seem to have played a role in the loss of Japanese merchant ships throughout the Pacific, including at Chuuk: 'Each service had its own shipping control offices and, predictably, coordination was rudimentary to nonexistent' (Hayashi cited in Parillo 1993: 23). In the U.S.N (1952b: 14) it was also noted: 'Poor communications contributed to many avoidable fiascoes, such as in February 1944, when the navy failed to warn the numerous army freighters moored in Truk Harbor of an impending U.S. carrier raid'.

After the war, the Japanese Military Affairs Bureau explained that: 'The navy castigated itself after the war for its defective, "one-sided" armament plans and officially accepted much responsibility for losing the war [and] we thought that we could hold on for a long time, but in the end the destruction of our shipping was very bad for us' (Interrogation of Comdr. Doi Yasumi cited in Parillo 1993: 8). These views about the importance of merchant shipping in Japan's war effort are supported by Admiral Toyoda Soemu, who became Commander in Chief of the Japanese Combined Fleet in May 1944. In a post-war interview with U.S. interrogators he considered it was the lack of ships that could bring materials from the south, and where materials were available in Japan they could not be moved around due to the shortage of shipping, that were the main factors in Japan's inability to implement its war strategies (U.S.SBS 1945a: 315). In another interrogation of Vice Admiral Fukudome Shigeru, Chief of Staff, Imperial Navy Combined Fleet from May 1943 to March 1944, he regarded the loss of an air combat corps of 50-60 planes as having the biggest impact on the Japanese war effort from the February 1944 bombing of Chuuk. He referred to the loss of the many ships in Chuuk Lagoon as not being a major blow as the routes on which they were employed were cut-off. (U.S.SBS 1945b: 518). In answer to another question as to why there were

so many merchant ships left in Chuuk on the 17 February 1944, Admiral Fukudome Shigeru stated that: 'Some of these merchant ships were those which were engaged in sending supplies to Rabaul. All had been subjected to attacks from your planes, and although there were many there, many of them were so badly damaged as not to be operational' (U.S.SBS 1945b: 518).

Japanese shipbuilding

The boom for Japanese shipbuilding began through the deficit of shipping created by the German U-boats during World War I. In May 1915, only four ships were being built in Japan; by the end of the year, 80 merchant vessels (481,000 tons) were being built; and in 1917, orders were received for 370 vessels of 1,330,000 tons (Parillo 1993: 54). Steel was the limiting factor to more ships being built. In 1918 Japanese shipbuilders constructed 45 vessels (370,000 tons) for the U.S. in return for 250,000 tons of steel 'but the lobbying of American shipbuilders scotched further deals of this sort' (Togo cited in Parillo 1993: 55). Japan became 'the world's third leading producer of cargo vessels' and 80% of the nation's trade was transported in Japanese ships (Parillo 1993: 55-56). However, through the Great Depression that hit the world in the late 1920s and early 1930s, world trade fell to 70% of pre-Depression levels and there was a glut of world shipping (Japan Business History Institute (JBHI) 1985: 81). The need for military supplies in China following the Manchurian incident in 1931, the export of cotton, general cargo and Japanese migrants, importation of raw materials from other countries, and new government policies assisting shipping, all contributed to Japan's rapid expansion in worldwide merchant shipping (JBHI 1985: 82-84). By 1939, Japan's 2,337 merchant fleet amounted to 7.9% of the world's fleet, being 8.2% of the total 68,509,432 world wide tonnage (JBHI 1985: Appendix 1). As a comparison and after considerable war-time construction, the U.S. mercantile fleet in September 1945 was 40,100,000 gross tons (*Jane's Fighting Ships of World War II* 1989: 254).

Japanese merchant shipping requirements during the war

Before the war, it was estimated 'that the civilian economy required 3 million tons of merchant shipping to continue functioning' (Parillo 1993: 34; U.S.SBS 1945c: 393) for the annual transportation of coal, steel, agricultural products and supplies. Japan was dependent on the U.S. for the importation of copper, coal and iron ore from Manchuria, timber from Borneo, bauxite from Malaysia, tin from Indochina, and about 20% of its food. Oil was imported from Borneo beginning in 1917 and as coal-fired ships turned to oil, other sources were required, 'in 1937 the United States was providing about two-thirds of Japan's liquid fuel imports' (Parillo 1993: 44-45). In the event of war with the U.S., Japan would need to get more of its oil from the Indonesia.

During the war it was estimated that a further 2.9 (a total of 5.9) million tons of shipping was required for the transport of troops, equipment and supplies to the battlefields (Parillo 1993: 37). This was carried out by commandeering (drafting) passenger and cargo vessels (see Figure 5.11). However by 1941, the Japanese army and navy had drafted about 3.9 million tons from the merchant fleet, the army planning to retain 1 million tons after July 1942, the navy planning to retain all of its 1,740,200 tons (Parillo 1993: 75).¹¹ The tonnage required of Japan's merchant fleet had already escalated to 6.9 million tons (more than was available) and imports of raw materials (iron ore, coal and food) suffered and only got worse (Parillo 1993: 38, 76). Admiral Nomura Kichisaburo, Imperial Japanese Navy (IJN) and former Ambassador to the United States in 1941, confirmed these figures (U.S.SBS 1945c: 393).

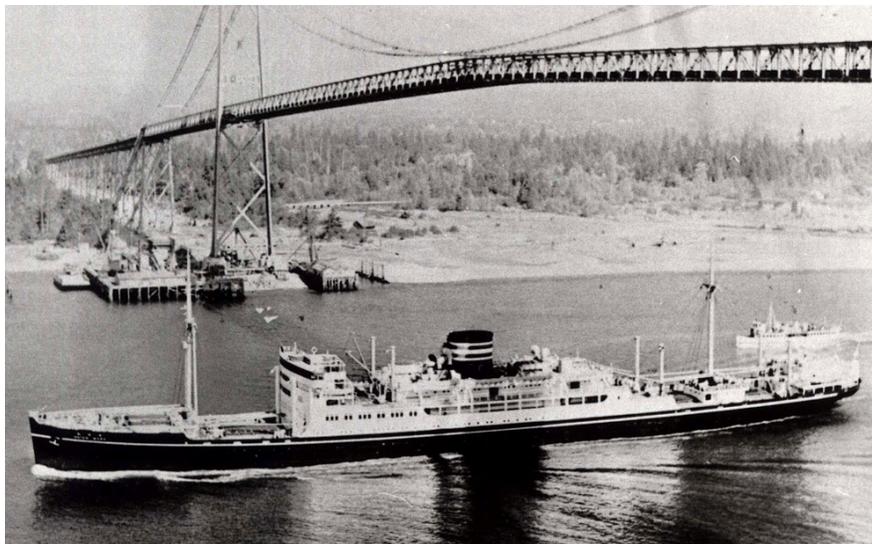


Figure 5.11: Heian Maru was drafted from NYK line, shown here passing under the Lions Gate Bridge, Vancouver in 1930 (Source, Captain Nozaki, NYK Museum).

A limiting factor in the use of merchant vessels during the war was that they could not be relied on to serve dual roles, to carry military personnel and supplies into combat and return with raw materials (Parillo 1993: 37). There were three main routes for these vessels, Japan via Singapore to the Indonesian oil ports; Japan via Palau to the Philippines and New Guinea; and Japan via Chuuk to the Marshall Islands, New Guinea, Rabaul and the Solomon Islands. This last route meant merchant vessels carried troops, munitions and other war equipment via the Chuuk base to many of the frontline battlefields and returned empty to Japan (Parillo 1993: 126). 'At the outbreak of the war Japan had a merchant fleet of 6.3 million gross registered tons (grt). Tonnage increased to 9.95

¹¹ This equated to 519 vessels drafted by the Army and 482 vessels drafted by the Navy at the commencement of the war (Parillo 1993: 75).

million grt during the war ... By the war's end that figure had shrunk to 1.5 million grt', of which 70% were of poor quality and 30% were worn out (JBHI 1985: 104) (Figure 5.12).

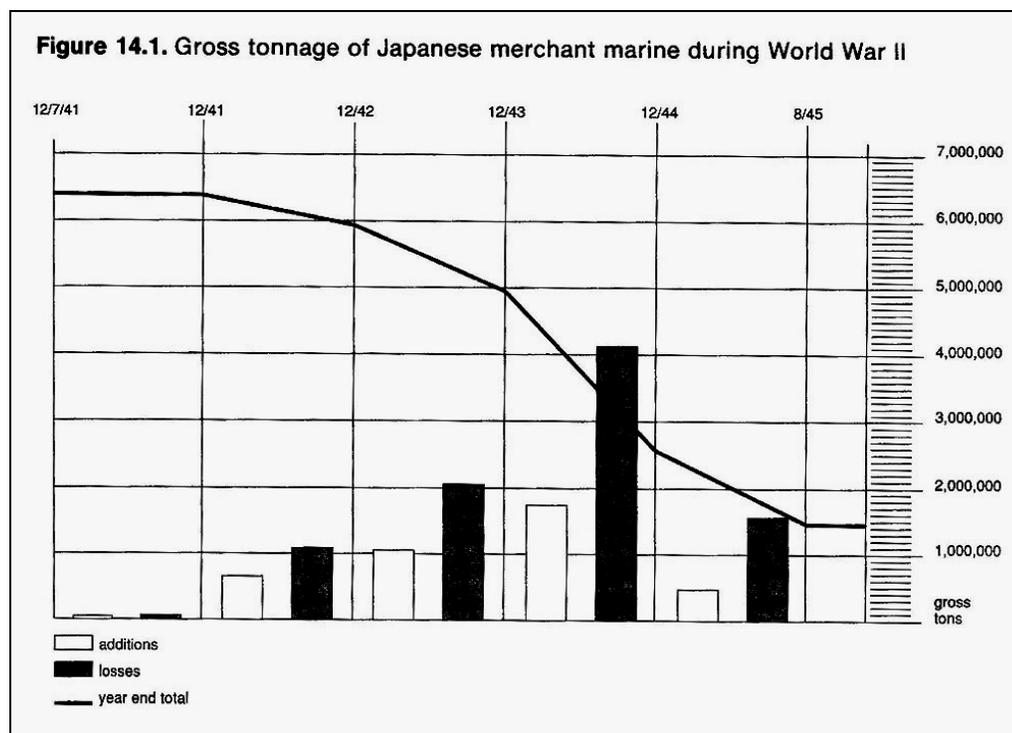


Figure 5.12: Gross tonnage of Japanese merchant ships built and lost during World War II (Parillo 1993: 126).

This decline had a great impact on the importation of raw materials, and Parillo (1993: 207) outlines how serious this was illustrated by coal imports—‘the vital mainstay of Japanese industry’. At the war’s end, coal imports were down to 20% of what they were at the beginning of the war. It was also estimated that for every year of the war, Japan (military and civilian) would use about 4.5 million tons of liquid fuel, not just for ships but also for aircraft, tanks, vehicles and other equipment (Parillo 1993:42). The Japanese navy had been stockpiling oil from 1909 and the army from 1934 and by the time the war commenced they had 8 million tons put aside (Parillo 1993: 43). However, the navy consumed 300,000 tons per month for much of the war, and the gasoline requirements of the Japanese army were well above what they actually received. ‘Probably 6 or 7 million tons per year would be a more realistic estimate of Imperial Japan’s needs for waging war in that day and age’ (Parillo 1993: 42). Japan had little domestic oil production and relied heavily on imports. The Japanese did manage to restore oil production in Indonesia to 78% of its 1940 level of eight million tons (Yomiosa cited in Parillo 1993: 45) but the loss of many Japanese fuel tankers

during the war by U.S. submarines was one of the major reasons oil was in short supply in Japan, its bases and at the battlefields (Parillo 1993: 45).

Impact on Chuukese ¹²

There were two distinct periods of impact on Chuukese during the war build-up, with some differences in severity—the navy period up to January 1944 and the later period dominated by the presence of the Japanese army. During the navy period, Chuukese from many islands, other Micronesians, Nauruans, Koreans and Japanese convicts were used as labour in the construction of the military facilities, particularly the airstrips.¹³ Tonoas, being the headquarters for the navy in Chuuk, was most heavily impacted, as people had to leave their villages and were relocated in other Tonoas villages or on other islands to make way for the military facilities. In 1935, the indigenous population of Tonoas and Etten was 1293, in 1945 it was 296 (FSM Census 1994: 11¹⁴; Thompson 1945: 2). Tong Misa, Chairman of the Chiefs of Tonoas in 2002, worked as a deckhand on the small supply ships for the Japanese navy and told me that if he missed work, navy personnel would come and search for him, violently rebuking him, and because much of the island had been cleared, there was nowhere to hide (Misa, Tong 2002 pers.comm.). In other cases ‘people were beaten, stripped naked, and hung in public to shame them when they missed work’ and children were conscripted to work on farms and in military constructions (Poyer et al. 2001: 103, 109). In comparison, Admiral Yamamoto Isoroku, the Commander in Chief of the Navy, had a leisurely and comfortable life-style (during 1942 and early 1943), eating ‘wild fowl and mangrove crab’ or spending a night in the Officers’ comfort house but mainly aboard one of his flagships, *Yamato* or *Musashi* ‘dining with his staff on delicacies such as sea bream served on individual black lacquer tables while they planned how to trap the Americans in decisive battle’ (Peattie 1988: 261).

On Weno, people from the village Iras were used in the nearby quarry to remove basalt and clay for the seawalls and docks and sometime between 1937 and 1941 were moved away to make way for an airstrip (Parker and King 1984: 475). Similar relocations occurred on all the lagoon islands that accommodated military facilities, the most dramatic Etten and Param, resulting in traditional lands being made out of bounds for the rest of war. Chuukese lost access to their breadfruit, taro, mango and coconut as trees were felled to make way for military installations or through Japanese control

¹² I have used the word ‘impact’ in this chapter rather than a less one-sided term, as apart from a few exceptions, Chuukese were dominated and greatly impacted during this period, not just by the Japanese military but also by the U.S. bombing. There were very few opportunities for Chuukese to influence, or reduce this impact.

¹³ Poyer (2001: 48) cites 35,000 labourers were used in 1940 to begin military base constructions.

¹⁴ FSM 1994 Census at www.fsmsgov.org/info/people.html accessed 28 April 2007.

of this food. Admiral Fukudome Shigeru, in his post-war interrogation stated that in late 1943, Chuuk had virtually nothing as everything had been sent to Rabaul. The navy force was only about 1,000 men and many guns that had been previously placed in Chuuk were sent to Rabaul, a situation that changed dramatically in 1944 (U.S.SBS 1945b: 516). Before the war, Chuukese were paid for working with the Japanese, although they were not paid during the war (Poyer et al. 2001: 100).

Japanese army

The first contingent of 300 Japanese army personnel arrived in November 1943, but the major group arrived in January 1944 (Bailey 2000: 17). More army personnel arrived from mid-February to April/May 1944, which brought the total to 39,945 Japanese military, civilians and construction workers, comprising 14,294 army, 9,841 navy, 14,220 (*Gunzoku*) construction workers, 1,590 civilians, 21 other nationals, and 9,895 Carolinians (United States Navy (U.S.N) 1945a).¹⁵ Included in the Carolinians were 793 from Nauru, although a total of 1,200 Nauruans (as prisoners-of-war) were brought to Chuuk in 1943 to work on the construction of the air fields (Thompson 1945: 2).

Poyer et al. (2001) in *The Typhoon of War*, which was based on interviews with many Micronesians about their war experiences, found that Chuukese were greatly impacted when the Japanese army arrived in January 1944. They found that up until that time much of the hard work was done by civilian or prisoner labour and that travel and food continued normally (Poyer et al. 2001: 49). When the Japanese army arrived, life changed and Chuuk was turned into a fortress by the army using Chuukese labour and according to one informant, Mori Masataka, 'that's when the war started' (Poyer et al. 2001: 49). In discussions with the chiefs on Tonoas in 2001-2002, I was told about the changes in many Japanese-Chuukese relations particularly with the Japanese army in January-February of 1944. The army commandeered Chuukese homes, Japanese civilian homes, schools and even 'bivouacked with tents' as the supplies with which the navy were to use in constructing army quarters were lost when the supply ships were sunk (Imperial Japanese Army (IJA) 1944: 38). They also tore homes down and built new ones (Lands 1945a: 2-5; Poyer et al. 2001: 83-84). On Weno in Mechitiw village, the Japanese destroyed Chuukese homes when clearing the land for military facilities (Poyer et al. 2001: 82-83). The army greatly increased the use of Chuukese labour (men and women) to drag large coastal defence guns up to the strategic hilltops, killing some Chuukese in the process (Aisek, Gradin pers.comm. 2002). This included four

¹⁵ 4,654 of the Army, Navy, Gunzoku and civilians were from Korea, Okinawa and Formosa (Taiwan)

of the largest guns in Chuuk, the 20 cm 'Armstrong Puzzuoli' type guns located at Sapuk on Weno, and dragged there from November 1943 to March 1944 (Denfield 1981: 97) (see Figure 8.64). Poyer et al. (2001: 82) concluded: 'It is our impression that the proportion of land confiscated for army use in Chuuk was greater than in the Marshalls, eastern or western Caroline Islands, or Palau. On some lagoon islands, such as Eten, Parem, Udot, Weno, and Toloas, it seems that every bit of land was controlled by the military for defense or food production'. Before the army arrived, Chuukese living in Sapuk, where guns and a communication building were established by the navy, were allowed to stay but the army forced the people away (Poyer et al. 2001: 83). In addition, Chuukese historic sites on many islands, such as Fauba on Tol, which were positioned in strategic locations on hill-tops were interfered with by the Japanese (Craib 1997: 7).

Another side of the Japanese war build-up in Chuuk can be seen in a number of cases where the sons of Japanese men and Chuukese women enlisted in the Japanese military and fought. Mori Masataka, who is related to Mori Koben, served with the Japanese forces in China, the Philippines and the final two years of the war in Weno (Poyer et al. 2001: 67). Other Micronesian young men, who through 'decades of Japanese conditioning', volunteered to form paramilitary groups and served 'as messengers, military assistants, interpreters, and supervisors of indigenous labor' at home or in New Guinea (known as the *teishintai*), although it is not known if any Chuukese were involved (Peattie 1988: 301).

The 'Greater East Asian War' strategy and Chuuk's role

There are many thousands of books written about the war with Japan that provide this information in great depth, including Morison's (1975) 15 volumes on the *History of United States Naval Operations Naval in World War II*, Dull (1978) on World War II battles from a Japanese perspective, Evans (1986) *The Japanese Navy in World War II* (17 articles written by former Japanese Naval Officers), and Toland's (2003) Pulitzer Prize winner, *The Rising Sun: The decline and fall of the Japanese Empire 1936-1945*. This thesis provides only an overview of Japan's war strategy, focussing on how the Chuuk base fitted into this.

Japan's war strategy with America in the early 1930s was to await the U.S. fleet in Japan's territory and to defeat it in a decisive battle (Toland 2003: 150). Admiral Yamamoto is generally credited with the strategy to attack Pearl Harbor, 'his hero, Admiral Togo' had successfully used a surprise attack (without any declaration of war) against the Russians in 1904 and from which they never recovered, losing a number of warships. In addition a book written in 1921-1925 titled *The Great*

Pacific War, describing a Japanese surprise attack on the U.S. Asiatic Fleet in Pearl Harbor, was adopted into the curriculum at the Japanese War College (Toland 2003: 150). Described as ‘Operation Z’, the eventual first phase of Japan’s strategy for the war included an offensive strike at the Americans at Pearl Harbor and at a number of other American and British-held bases. This would provide Japanese control of the natural resources within an area, ‘the perimeter being roughly from the Kuriles, the Marshalls, the Bismarck Archipelago [Solomon Islands] and south to Sumatra, Malay, Burma’ (U.S.SBS 1945a: 324) and including ‘Sumatra, Java and Borneo’ (U.S.SBS 1945d: 422).

Japan struck Pearl Harbor on the 7 December 1941, with an aircraft carrier task force that launched over 350 aircraft which sank or damaged 21 vessels, destroying 75% of U.S. aircraft, and killing over 2,500 Americans. Immediately following the attack of Pearl Harbor, the Japanese Fourth Fleet departed Chuuk, a strategic advance base at this stage, and captured American bases in Guam (10 December 1941) with assistance from bombers from Chuuk, then Wake Island on 23 January 1942, and the Philippines on 2 January 1942. Flying-boats out of Chuuk began bombing raids on Rabaul in December 1941. The Australian military, concerned about their bases in the region, carried out the very first reconnaissance and inconsequential attacks on Chuuk (Bailey 2000: 97). Flight-Lieutenant’s R. Yeowart and R. Green flying Mark IV Hudson’s nicknamed *Tit-Willow* and *Yum-Yum* and specially fitted with long-range fuel tanks and reconnaissance cameras, took off from Townsville, north Queensland on 4 January 1942 to Chuuk via Rabaul. On 9 January, Yeowart (Green’s aircraft developed mechanical problems in Rabaul) photographed parts of Chuuk, observing 12 warships, 3 merchant vessels, a hospital ship, a number of flying-boats, many recently constructed buildings and what was thought to be the Etten airstrip with ‘one half of this runway was packed, wing to wing, with heavily camouflaged bombers’ (Yeowart 1943). On a second Australian attempt to attack Japan’s forces in Chuuk, six Catalinas set out from Kavieng and Lorengau, with only one able to see the base through the clouds dropping 16 bombs on 15 January 1942 (Bailey 2000: 98).

On 21 January 1942, a Japanese Taskforce departed Chuuk to invade Rabaul, landing on 23 January 1942 and resulting in the taking of Lae and Salamaua on 8 March 1942. The main Japanese motives for taking Rabaul, Lae and Salamaua early in the war, were to enforce a blockade of supply routes between the U.S. and Australia, and to protect Chuuk from southern approach Allied air attacks (Bailey 2000: 13; Tanaka 2000). This was achieved by March 1942 and Japan went into its ‘Second Phase Operations [which was] to strengthen the defense of the Great East Asia area’. This

called for an extension of an area of domination toward the southern Pacific and Hawaii to 'put into practice the military axiom that offense is the best defense' (U.S.SBS 1945d: 422; United States Navy (U.S.N) 1952c) (Figure 5.13). From Chuuk, a Japanese fleet departed to invade New Guinea, which led to the Battle of the Coral Sea (7-8 May 1942) in which both the Japanese and Americans lost an aircraft carrier.

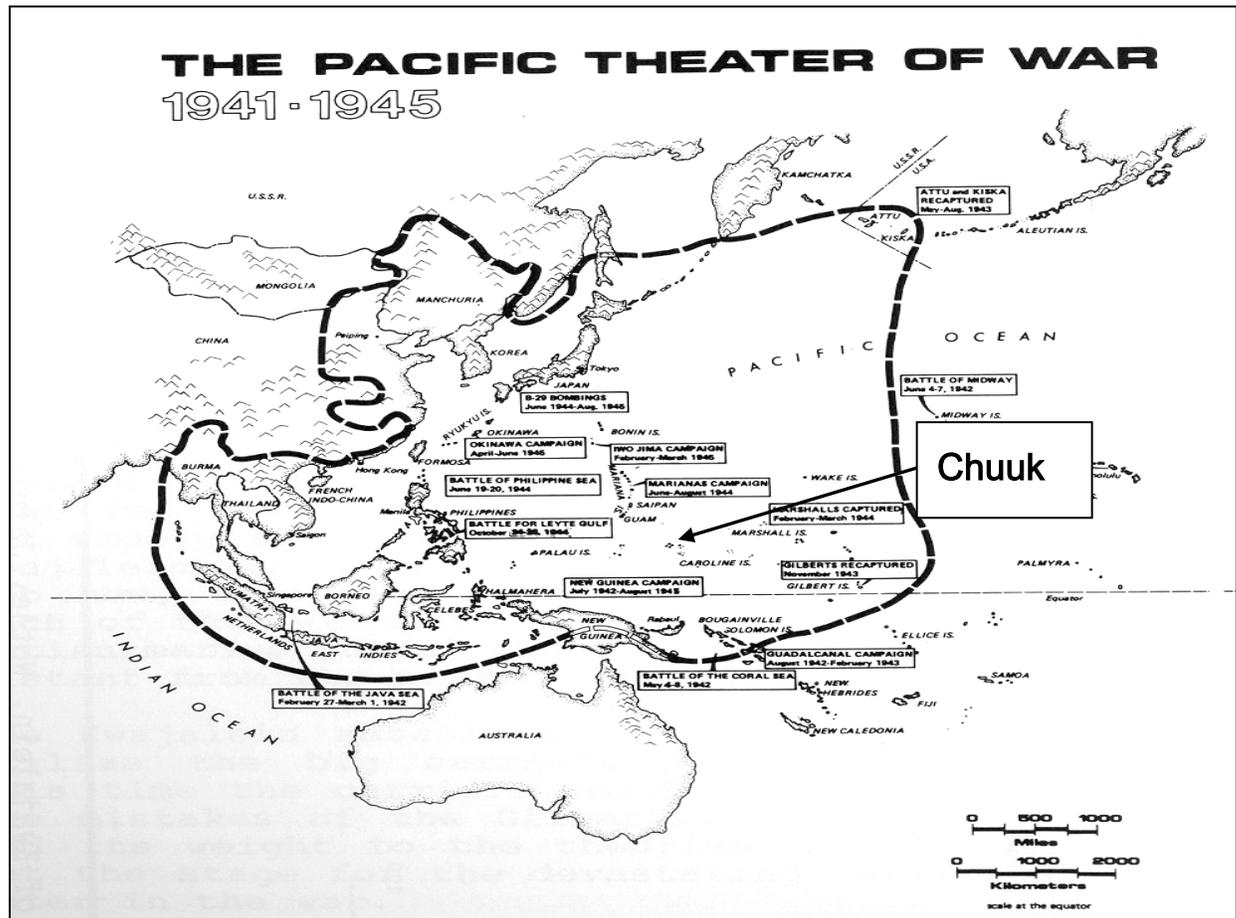


Figure 5.13: Japanese outer perimeter, January 1943 (Carrell 1991: 229).

With Rabaul in Japanese hands, it became the advance base for operations in the south-east Pacific, and with the landing of Japanese forces on Guadalcanal in the Solomons in July 1942, Chuuk became the rear area naval and defence headquarters for the Imperial Japanese Navy Combined Fleet. The fleet operated between Chuuk and Rabaul, and supplies, war equipment, aircraft, ships and military personnel came from Japan through Chuuk to Rabaul. In Chuuk, the fleet replenished, rested and was repaired to the extent that Chuuk's facilities could handle. New pilots also received their latest training before heading onto the frontlines.

The Japanese military regarded the loss at the Battle of Midway, in which four Japanese and one American aircraft carriers were lost on 7 June 1942 as the first serious setback (U.S.N 1952c: 25). In the following year, February 1943, after a number of intensive battles where Japanese forces suffered badly, Guadalcanal was evacuated (U.S.N 1952c: 1). The Japanese navy lost a large number of trained pilots, and they lost the initiative to the Allied forces (U.S.SBS 1952c: 25). This caused Japan to go into its Third Phase Operations (from February 1943) which had four stages: Stage 1, Solomon Campaigns (up until January 1944); Stage 2, Battles in the Inner South Seas Area involving the A-Go Operation; Stage 3, Campaign in the Philippines involving the SHO-Go Operations; Stage 4, Battles for Iwo Jima and Okinawa until the end of the war (U.S.SBS 1952c: 26). From this point, the orders from Tokyo were for the navy to switch to a defensive strategy (U.S.SBS 1952c: 2). Chuuk was involved in the first stage of the Third Phase Operations indirectly through routing ships, aircraft, equipment and personnel to Rabaul and parts of the Solomon Islands. Admiral Yamamoto departed Chuuk on the 4 April for Rabaul to personally take charge, and during an inspection of his forces, was killed on 18 April 1943.¹⁶ American decoding of a message out of Rabaul to the effect that Yamamoto was in the Solomons contributed to his loss (Davis 2005: 227). By mid-December 1943, Rabaul was completely isolated.

From orders issued on 15 August 1943, the Combined Fleet was to assemble in the Inner South Seas Area to prepare for the decisive battle (U.S.SBS 1952c: 5-6). Chuuk was again designated as a Key Advance Base in which the Combined Fleet assembled and other bases were used to defend the area 'from the Kuril Islands in the north, through the Marshalls and the Gilberts down to the sea north of the Solomons' (U.S.SBS 1952c: 12). Each island base was left to defend itself, leaving the Combined Fleet to conduct its own decisive battle (U.S.SBS 1952c: 9). This was time when the Chuuk base was heavily fortified with the arrival of 14,000+ army personnel and equipment. Vice Admiral Fukudome Shigeru considered: 'The defense of Truk in 1943 was extremely weak and I believe it could have been easily taken' (U.S.SBS 1945b: 516-518). American submarines continued to sink a number of ships carrying military equipment and supplies bound for Chuuk and other bases, which greatly diminished their defensive capabilities.

During late 1943, early 1944 American Carrier Task Force 58 moved through the Pacific Islands conquering all ahead of it, landing in the Gilbert Islands on 21 November 1943 and in Kwajalein in the Marshalls on 1 February 1944. At the same time the U.S. Army under the command of General

¹⁶ Admiral Yamamoto's ashes were taken to Chuuk for a ceremony before being taken back to Japan aboard the *Musashi* (Denfeld 1981: 121).

MacArthur, was pushing another offensive line through the Bismarks (Solomon Islands) and New Guinea bound for the Philippines to rendezvous with the navy. From the Japanese navy's point of view, the operational area and the area for the decisive naval battle was further reduced to the Marianas because of the loss of the Solomon Island and Pacific bases (U.S.SBS 1952c: 13). The Japanese navy had failed 'to force a decisive navy battle when Americans invaded the Gilberts and the Marshalls largely because of the shortage of carrier-borne air strength' (U.S.SBS 1952c: 15). As it pushed further west, the American Carrier Task Force 58 launched an attack on Chuuk, beginning on 17 February 1944. Hesitant about Chuuk's defences, but armed with photographs of the base from a fly-over earlier in early February, they decided not to launch an amphibious invasion, but a series of aircraft attacks to neutralize the five airstrips and destroy the aircraft and ships stationed there.¹⁷ On 10 February 1944, most of the Japanese fleet departed Chuuk for Palau, aware that the American Task Force was off the Marshalls, and warned of an impending invasion from the American photographic fly-over. Japan had already begun moving some of its fleet to Palau before 3 February and this continued up until 10 February as they had taken a decision to relocate the fleet to the western Carolines, being part of their new defensive line (U.S.SBS 1945b: 517). Soon after, on 20 February 1944, the fighting between the U.S. and Japan in Rabaul concluded, with the Japanese forces capitulating.

Operation Hailstone and the bombing of Chuuk

While the U.S. had planned to fly over Chuuk early in 1942, the Japanese bombing of Pearl Harbor put this on hold. On 4 February 1944, two US Marine PB4Y photo-reconnaissance aircraft flew over Chuuk in preparation for the aircraft carrier raids. The photo-reconnaissance flight observed and documented about 60 large ships (half being naval vessels) in the lagoon, including the *Musashi* (which later departed on the 10 February) and about 190 aircraft (Bailey 2000: 100-102). Also located in the lagoon were a number of smaller vessels, being 50 sampans, 14 tugs, three 500 ton fuel barges, three water lighters and 17 smaller vessels (U.S.SBS 1947: 3). The American Carrier Task Force 58, comprising four large aircraft carriers, 13 light carriers, six battleships, six heavy cruisers, 27 destroyers, 10 submarines, and a number of support ships, lying about 160 km to the north and east of the lagoon, sent out a continuous wave of aircraft on 17 and 18 February 1944 known as 'Operation Hailstone'. The Japanese were caught off guard, even though a search plane had failed to return and was presumably shot down by the task force (U.S.SBS 1945e: 132). In the post-war interrogation of Captain Fuchida Mitsuo, IJN, who led the attacks on Pearl Harbor,

¹⁷ The U.S. prepared information on the best beaches for landings in Chuuk as part of an amphibious attack of the base (JICPOA 1944e: 36-37; JICPOA 1944f: 40-41).

Darwin and Ceylon (Sri Lanka), he stated that 'the first positive warning of your approach was given by our radar detecting your planes 30 minutes before the first attack. Six reconnaissance planes and bombers were sent immediately to attack the force. None of these planes returned' (U.S.SBS 1945f: 376). Aircraft on the Etten airstrip were slow in taking off as the pilots lived on Tonoas and there were some delays in spreading the alarms and many aircraft were destroyed on the ground. The base had been on alert since the U.S. photo-reconnaissance on 4 February and expected an attack on the 21 February. After a search of an area 300 miles north of Chuuk by six aircraft had failed to locate any enemy forces on the 16 February, the base 'relaxed vigilance' (U.S.SBS 1947: 12).

Priority targets on 17 February for U.S. aircraft were the airstrips, aircraft, fuel storage tanks and other selected facilities, and the ships on 18 February (JICPOA 1944c). U.S. aircraft dropped a range of bombs from 100 to 1,000 pounds in weight, on targets followed by incendiary and fragmentation clusters and machine-gun strafing. A number of U.S. Grumman TBF-1 Avenger aircraft were fitted with a 2,000 pound torpedo that was specifically used to sink ships. A total of '1,250 combat sorties from the carriers had dropped over 500 tons of bombs and torpedoes' (Carrell 1991: 237) over the two days including the first U.S. carrier aircraft night attacks against enemy shipping (Bailey 2000: 153). Japanese Monograph No. 173 (1952d: 109a-109e) identified 53 ships and submarines sunk or destroyed inside and outside of the lagoon during 17 and 18 February 1944, with four ships documented to be under the control of the Japanese army. If the ships were at anchor as many were (having just arrived in Chuuk), they would not have stood much chance to escape the bombing followed by the aerial torpedoes (Figure 5.14).

Japanese Monograph No. 117 (U.S.N 1952c: 29) recorded 'the loss sustained were two cruisers, four destroyers, 26 transports sunk and about 180 aircraft'. In addition, many buildings on the major islands, particularly on Tonoas, Etten and Weno were destroyed but many still remained untouched. Two of the 40 metre diameter fuel tanks located on Tonoas were destroyed (JICPOA 1944g) (Figure 5.15 and 5.16). The U.S. Navy lost only four aircraft during this period (U.S.SBS 1947: 13-14). While aircraft from the U.S. Carrier Task Force were attacking the Japanese forces in the lagoon, a number of U.S. battleships, cruisers and destroyers of Task Force 50 were patrolling outside the lagoon and stopping any ships from leaving, during which time they sunk three naval vessels and one armed merchant vessel (Bailey 2000: 263).

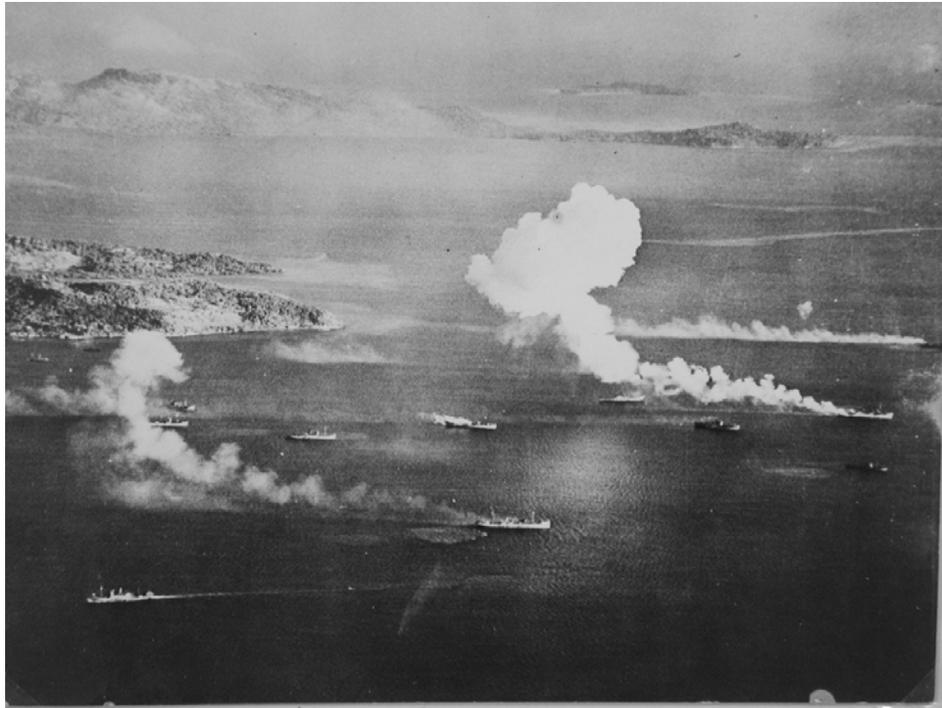


Figure 5.14: Ships in the anchorage east of Tonoas being bombed on 17 February 1944 (Source NARA, Washington).



Figure 5.15: The southern coast of Tonoas under Attack (Source, NARA Washington).



Figure 5.16: One of the 10,000 ton oil tanks hit in the attack (Photograph by Bill Jeffery, 2006).

Although this first attack was devastating in relation to damage to military facilities, aircraft and ship losses, Vice Admiral Fukudome Shigeru was informed by local command at Chuuk that the base could take care of itself from April 1944 (U.S.SBS 1945b: 518). Some Japanese military staff officers thought that the U.S. might land on Chuuk after this first attack but this did not take place (U.S.SBS No. 139, 1946: 143).

To the U.S., the attack of Chuuk was highly successful: ‘This attack, which was delivered with devastating effect, was particularly satisfying as it was a partial payment for Pearl Harbor’ (*Naval Aviation News* October 1, 1945: 10). Morison (1975: 329-32), the U.S. Navy’s historian, stated: ‘The strike on Truk demonstrated a virtual revolution in naval warfare; the aircraft carrier emerged as the capital ship of the future, with unlimited potentialities’. Japanese military personnel were recorded after the war as noting: ‘The big air strike on Truk by the planes of an American striking Task Force on 17 February took such a heavy toll that it was called “Another Pearl Harbor” by the Japanese forces’ (U.S.N 1952c: 29). The U.S. plans were to neutralize the Chuuk base so Japanese aircraft could not play any role in attacking the U.S. Carrier Task Force in the Marianas and New Guinea (Poyer et al. 2001: 144). No landings by U.S. forces occurred (Figure 5.17). The size and nature of the attack on Chuuk is indicative of what the U.S. thought of the base—the ‘impregnable bastion of the Pacific’, the ‘Japanese Pearl Harbor’ and the ‘Gibraltar of the Pacific’—although they greatly over-estimated its strength (Denfeld 1981: 4; Poyer et al 2001: 138; U.S.SBS 1947: 4). A more comprehensive summary of Operation Hailstone can be found in Bailey (2000: 103-172), Lindemann (1982), and U.S.SBS (1947).

The U.S. Army Air Force initiated bombings of Chuuk using B-24 aircraft from Kwajalein (Marshall Islands) and Bougainville (Solomon Islands) beginning on 15 March 1944. From 6 April 1944, a month of night-time bombings were implemented, and the Japanese commenced placing everything underground (Poyer et al. 2001: 142).

Chuuk defences

The Japanese army which had reached its full complement by April 1944, implemented much of this fortification work as they were in command of Chuuk’s defences. Their priorities were the defence of the ‘4 seasons islands’—‘Natsu Shima’, Summer Island (Tonoas); ‘Aki Shima’, Fall Island (Fefan), ‘Fuyu Jima’ Winter Island (Uman), and ‘Haru Shima’, Spring Island (Weno) (JICPOA) 1944e: 8).¹⁸ The Japanese army employed a number of techniques against a likely amphibious invasion, such as the laying of over 4,000 anti-boat mines on the reefs that surrounded each island to protect against landings (U.S.SBS 1947: 11). Machine gun emplacements and pillboxes littered the coastline where the Japanese wanted to fight enemy troops rather than further inland. The army (IJA 1944: 8) determined that: ‘Obstacles should be placed mainly around waterfront, also placed some in camps. Defense ships, military tanks, these were the main, yet

¹⁸ Peattie (1988: 336, note 41) noted that the Chuuk islands were some of the very few islands in all of Micronesia to be provided with Japanese names.

unable to be completed then the war came to the end. Mainly they were waterfront mini-mines, stag horn shaped fences, stone walls, rails, military tank cliffs, military tank shelters and iron-wire walls'. Although it was recorded in U.S.SBS (1947: 11) and Denfeld's (1981: 16) post-war field survey found that there were no tanks on Truk, some can be seen on some of the shipwrecks (*Nippo Maru* and *San Francisco Maru*) (see Figure 8.60). Tanks are referred to in a number of places in the Japanese army's plans for defending Chuuk—'Offence devotes to contain enemy with heavy army vehicles, especially with army tank'—and which appeared to be written after July 1944 (IJA 1944: 6).¹⁹

Tonoas's communication facility was placed underground, munitions were stored in underground facilities on the islands, and separate caves and bunkers were dug for personnel on all the islands. The Japanese army also employed camouflaging of guns and buildings as well as establishing fake guns and features for enemy aircraft. The large coastal defence guns and anti-aircraft guns that were positioned on most hilltops used a system of connecting tunnels as major transport routes. Denfield (1981: 17) carried out a survey of the World War II remains in Chuuk in 1979 and found 101 Army guns (75 to 105 mm), 85 Navy guns (75 to 200 mm) and about 302 automatic weapons of smaller calibre. By April 1944, the fortifications were thought to be in good shape but revision of plans and additional facilities were added right up until the end of the war. For example: 'Started rock bed excavation on September the 10th 1944, completed on April the 25th 1945, the length was 114 m, capacity of 560 m³, it stored about 800 units of provisions at the end of the war' (IJA 1944: 43). Much of the digging was carried out with pick and shovel as explosives were scarce as well as too damp to use. By July, 1944, the last of the supplies came through, due to the losses in the Marianas, leaving the Japanese in Chuuk with about 10 months rations, plus local food.

Second aircraft carrier attack

On 30 April and 1 May 1944,²⁰ U.S. Carrier Task Force 58 carried out another attack of Chuuk as Japanese army troops and aircraft from Rabaul had been sent to strengthen Chuuk (Figure 5.17). The U.S.SBS (1947: 9) noted that eight aircraft remained serviceable after the February attack and just prior to the April attack, there were between 81 and 104 aircraft in Chuuk. Further U.S. air target summaries (JICPOA 1944g, 1944j) provide a comprehensive assessment of targets, the top

¹⁹ All IJN (1944) text was translation made by Japanese national Mohri Yachiyo.

²⁰ Bailey (2000:174) provides dates of 29 and 30 April 1944 for this attack and so does U.S.SBS (1947: 13) but with a note that this was 'west longitude time' as well as the date of the initial attack 16 and 17 February. The dates west of the International Dateline (east longitude time) of the two attacks were 17 and 18 February and 30 April, 1 May 1944 and which is recorded by Lindemann (1982: 10).

six priorities being: '1. Targets of opportunity, 2. Eten airfield, 3. Param Airfield, 4. Moen airfield, 5. Dublon seaplane base, 6. Moen seaplane base'. Aircraft and airstrips were still seen as the greatest target priorities for the U.S. military. The U.S.SBS (1947: 14) documents 2,200 sorties being flown and the bomb total dropped was 748 tons on 30 April and 1 May 1944. A further 93 aircraft were destroyed, '423 buildings and six hangers were destroyed and 44 buildings were damaged ... This carrier attack virtually nullified Truk's value as a supply and airbase' (U.S.SBS 1947: 14). A small number of ships were also sunk or damaged during this attack and Bailey (2000: 247) lists four larger ships and a number of smaller craft. The U.S. forces lost 22 aircraft.²¹ Bailey (2000: 174-248) provides a comprehensive summary of this attack using, as in the February attack, diaries and action reports from the various U.S. ships and intercepted Japanese radio messages.

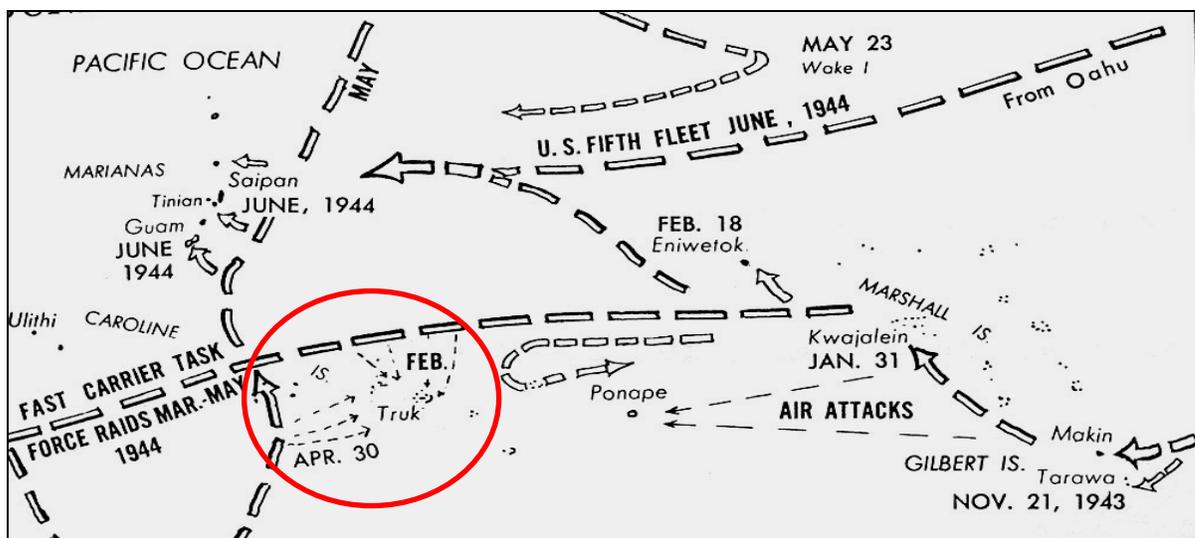


Figure 5.17: Illustrating U.S. plans for bypassing Chuuk in regard to an amphibious invasion, but attacking it with their carrier forces (Nevitt-Dupuy 1962).

Further day and night B-24 bombings of Chuuk were implemented from May 1944 through to August 1945, during which time over 4,000 tons of bombs were dropped on Japanese installations and destroying a few ships and aircraft (Bailey 2000: 249-250). Poyer et al. (2001: 144) documented: 'Chuuk was essentially useless to the Japanese by mid-1944, without planes for reconnaissance or defense'. In addition to the bombs, the U.S. were dropping surrender leaflets on Chuuk and the other Japanese held Pacific Islands (Figure 5.18). From October 1944 through to August 1945, experimental / training flights using B-29 bombers dropped a further 1,727 tons of

²¹ Figures for aircraft and ships lost vary according to different sources, Japanese or American. Japanese and American pilots were known to exaggerate their victories (U.S.SBS 1947:8). Other secondary sources also vary; Stewart (1989: 54), an administrator in the Office of the High Commissioner, TTPI for eight years found that 45 vessels (of an unknown size) were destroyed and damaged, 78 Japanese aircraft and 29 US aircraft destroyed in this second carrier attack, contrary to Bailey (2000) for instance.

bombs. The flights were experimental as the U.S. were developing their techniques and preparing the air crews for bombing the Japanese homeland. They were also aimed at keeping Chuuk neutralized (Bailey 2001: 252). Chuuk had six or seven operational aircraft out of a total of 35, for the period July 1944 to August 1945 (Bailey 2001: 252; U.S.SBS 1947: 9). As the fighting moved north-west to the Marianas, aircraft from Chuuk had been sent to these areas, greatly reducing any threat of the Chuuk base resources to U.S. forces.



Figure 5.18: One of the leaflets dropped on Chuuk and other Japanese held Pacific Islands in 1944. The text reads: “Each Bomb Brings Death” One bomb after another brings destruction and death. We can bring bomb load after bomb load, without end. You are cut off: Your air force cannot protect you. Why continue resistance and cause further useless shedding of blood?’ (Source, Australian War Memorial, J158).

British attack

On 15 and 16 June 1945, a British Carrier Task Force attacked Chuuk, inflicting little damage and losing two aircraft but serving as training exercise to new units of the British Naval Fleet (Bailey 2000: 253). They also bombarded the islands from a cruiser. The Japanese took this attack as a prelude to an amphibious assault and destroyed many documents, but no invasion eventuated (U.S.SBS 1947: 14).

Carnage in Chuuk

Denfield (1981: 51) calculated that 6,878 tons of bombs were dropped in total, killing 499 Japanese army and navy personnel and wounding 572, and killing 63 and wounding 60 Chuukese.²² Stewart (1989: 97) makes note of a secret U.S. document that was declassified in 1985 which records the Japanese fleet in Chuuk was initially selected as a target for the atomic bomb, the reasoning being that if the bomb failed to explode it would be lost in the lagoon, thus ‘preserving the secrets of U.S. nuclear weaponry’. The notion of the use of the atomic bomb in Chuuk is supported in *Bombs in Bikini: The Official Report of Operation Crossroads* (Lenihan 1991: 14): ‘The idea of using the bomb against ships was not new ... even in 1944, Los Alamos scientists were looking into the possibilities of eventually atomic-bombing Japanese fleet concentrations ... specifically the Japanese naval base at Truk Lagoon, but by that late date the Imperial Japanese Navy was already decimated by conventional warfare’.

The impact of the bombing on Chuukese

Chuukese suffered the greatest loss of life in all the Carolines from the almost daily bombing (Poyer et al. 2001: 147). Many Chuukese had already been moved away from their home islands. They had their homes confiscated or taken apart by the Japanese army, who also ‘took boats and canoes without payment, stored supplies on people’s land without informing them, and destroyed meeting houses and land to erect their buildings’ (Poyer et al. 2001: 84). Although the war had been going on for more than two years, to Chuukese, 17 February 1944 was when the war started as for many, this was their first taste of war and bombs. Sachuo Siwi, a Chuukese man on Tonoas at the time described the scene after the 17 February bombing (Poyer et al. 2001: 140): ‘Everywhere I went, I saw dead people just lying around everywhere. Sometimes I’d find an arm or a leg or even a head separated from the body—people were dying out in the open, a messy death’. A Pohnpeian man recalled on the lesser bombed island of Pohnpei, ‘repeated bombing took a psychological toll. The greatest stress was the constant need to be alert, to be aware of planes overhead and the site of the nearest shelter’ (Poyer et al. 2001: 140). In another interview with Sachuo Siwi, he told how the American bombing, while aimed at Japanese military installations, did destroy some Chuukese houses and many died in the first bombings, but not during the second raid. The U.S. bombing brought misery to many Chuukese as much of the local food (taro, breadfruit, coconut, and bananas) was destroyed (Poyer et al. 2001: 142). The first attack was a complete surprise to Chuukese and they were not prepared, as in later times, with caves and shelters, sometimes sharing with Japanese,

²² Denfeld also makes the note that this does not include personnel aboard the ships, which could number 4,000.

sometimes being pushed out of their caves by the Japanese. Many of the caves and underground shelters for the Japanese were dug by Chuukese using picks and shovels, who then had to dig their own personal caves afterwards (Aisek cited in Lindemann 1982: 172) (Figures 5.19 and 5.20).

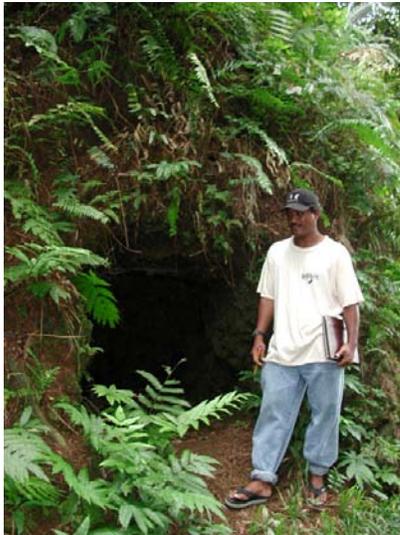


Figure 5.19: One of the many small caves Chuukese dug to hide from the bombing (Photograph by Bill Jeffery, 2001).



Figure 5.20: Entrance to the cave constructed for Vice Admiral Hara, Chuichi, Commander of Fourth Fleet (Photograph by Bill Jeffery, 2001).

A more insidious type of bomb was also dropped by the Americans according to Chuukese informants. In 2001, I was informed by Tongei Kosam, chief of the village of Roro on Tonoas, that a number of time-bombs were dropped by the U.S., which exploded several days later when being inspected by Japanese and Chuukese killing a number of people (Figure 5.21). Bailey (2000: 153) called them a 12-hour delay bomb. Kimiuo Aisek related the similar story to Klaus Lindemann (1982: 172).

Kimiuo Aisek, a Chuukese man who was 17 and lived on Tonoas at the time of the first bombing, was interviewed about his experiences (Lindemann 1982: 159-212). Kimiuo worked for the Japanese navy loading and unloading supplies on the barges but as the first attack was before sunrise he was still at home with his family. He saw and heard a number of ships in the Fourth Fleet anchorage hit by American bombs, including the *Aikoku Maru*, which was violently hit and sunk, causing a huge fireball and a shockwave that hurt Kimiuo's eyes, chest and ears. The *Aikoku Maru* was loaded with munitions and troops that were being unloaded at the time and many were killed.²³

²³ Bailey (2000: 266-281) provides a background on the vessel's history, loss and description. He states that 629 troops boarded the vessel in Japan, some were off-loaded in Pohnpei and at the time of sinking in Chuuk it had a complement of 133 crew and 400 passengers.

Tong Misa recounted in a television documentary how he was given the job to pick-up the dead bodies from the *Aikoku Maru* and ‘stack them like rice sacks on the shore’ (*Shipwreck Detectives: Pacific Graveyard* 2002).



Figure 5.21: Tongei Kosam (white shirt) in his wuut in Roro on Tonoas. Other Chuukese men include (from left) Joshua Suka, Yoda Chaniel and Tong Misa. They were all in Chuuk in during the war (Photograph by Bill Jeffery, 2001).

In addition to the constant bombing for 18 months, U.S. submarines sunk many transport ships to Chuuk, which stopped much needed supplies and equipment reaching the base. Stewart (1989: 70) notes that six Japanese submarines and the occasional flying boat carrying supplies made it to Chuuk from September 1944 to the end of the war. This very limited transport into Chuuk caused a severe shortage of food for all of the nearly 50,000 inhabitants and placed great pressure on the continuing supply of local foods—taro, breadfruit, coconut and bananas (which had been decimated by removal and bombing). Japanese military personnel had already dug up some taro patches and replaced them with watercress and sweet potato. They threatened to shoot any Chuukese who took coconuts and breadfruit (that traditionally belonged to them) and Stewart (1989: 71) notes an occasion when one Chuukese man was shot during an attempt to take some potatoes grown on his own land.

The only way in which anyone benefited from the bombing was when a bomb would explode in the water, killing fish, and although Chuukese had previously been forbidden to catch fish from their own boats, they were now sent out by the Japanese to collect the dead fish (Aisek cited in Lindemann 1982: 171). But there was not enough to go around and, ‘Trukese and Japanese deaths

from malnutrition and avitaminosis reached several hundred each month' (Stewart 1989: 70). Rats were eaten and an uncorroborated act of cannibalism was reported (Stewart 1989: 70-72). Captain Ueno Masahiko of the Japanese 340th Independent Infantry Regiment, when questioned after the war about rations and the health of the inhabitants of Chuuk for the period October 1944, stated that, 'the Japanese had 250 grams [of rice] and some dehydrated vegetables as one day's ration, and because that was not enough we had to eat wild grass and rats. The Nauruans was a little short of ours. [In later questioning Ueno said he did not] 'know whether they [natives] got vegetables'. In our Battalion on the Island [Fuyo] an average of ten men a day died [during the period October 1944 to December 1944]', although in later questioning he said that this was the greatest number for any one day. Captain Ueno also stated that what rice they held was part of their battle reserve and would only last another two months, and 'the majority of the men were suffering from chronic diarrhoea' (Australian Defence Force (ADF) 1947).

Bailey (2000: 254-256), Denfeld (1981: 60-64), Peattie (1988: 348-349, note 102), and Stewart (1989: 101-106) also provide reports of a number of atrocities involving torture committed against American prisoners of war in Chuuk, culminating in six cases being brought before the War Crimes Commission in Guam, involving 31 men, with six receiving death sentences but only two known to have been executed in 1948. In 1946 and 1947, an Australian military court in Rabaul also heard war crimes committed by Japanese civilian and military personnel against some Nauruans primarily, but also against some people from the Gilbert Islands, four Chuukese and two missionaries.²⁴ The Nauruans and Gilbert Islanders were beaten for stealing rice, another was killed with explosives for not allowing some Japanese military personnel to use his fishing lines, and some Nauruans, missionaries and Chuukese were beaten because they were thought to be spies. All the accused Japanese were found guilty and sentenced from three months to five years imprisonment (Australian Defence Force (ADF) 1946a, 1946b, 1947a, 1947b). By far the worst atrocity was committed against 100 women, possibly of Japanese, Korean and Chinese nationality, who were used as comfort women. Chuuk had a number of comfort houses or stations for the army, navy (separate houses for officers) and Japanese civilians, comprising about 300 comfort women (Hicks 1995: 78; Jeffery 2003: 11-14) (Figure 5.22). 'These youngsters [Japanese pilots], on arrival, were encouraged by their seniors to use the comfort facilities, on the basis that sex would build up morale' (Hicks 1995: 78). Following the bombing of Chuuk and the possibility of an invasion, 'It was concluded the women would be an encumbrance and an embarrassment if they fell into

²⁴ Nauru and its people before the war were being administered by Great Britain, Australia and New Zealand and the Australian military were of the view that they had jurisdiction to hear and prosecute these crimes.

American hands. It was decided to dispose of them [about 100 remained in Chuuk]' (Hicks 1995: 115). A Japanese ensign was sent to the women's dugout with a light machine gun. He shot a few women who emerged then went inside and 'directed sweeping automatic fire at random into the pitch-dark interior ... He used his torch to examine the results. There were about seventy bodies' (Kim Il Myon 1976 cited in Hicks 1995: 115).²⁵



Figure 5.22: Survey group with some Chuukese war survivors in front of gate posts, all that remain of a comfort house on Tonoas (Photograph by Anerit Mailo, 2001).

Summary of the war and its impact in Chuuk

Admiral Yamamoto is reported to have stated that Japan could carry through with the war for a year, but after that he was unsure (U.S.SBS No. 378: 325). In the first six months the Japanese military achieved control over much of the western Pacific, with access to oil and raw materials from Malaya, Burma, the Philippines and Indonesia, but in doing so had extended their military as well as their industrial and human capabilities to the limit (Pitt 1968: 2681: 2679). As the U.S. built up its military strength, based on greater human and industrial capabilities, it pushed Japan back, at a cost of over two million Japanese military and civilian lives, and 295,000 American lives. In combination with the war against Germany:

²⁵ Hick's (1995: 236-237) noted that Kim Il Myon's work is regarded as: 'The most comprehensive study of relevant war reminiscence literature, based on 75 substantial sources dated 1942 to 1975.'

The Second World War lasted nearly six years. It was waged by 56 nations and cost well over 50 million [55,014,000] lives. It was thus the most violent and prolonged self-inflicted injury on mankind of which history has record, and will probably remain so—for if any future war is likely to be more violent, it is hardly likely also to be more prolonged. (Pitt 1968: 2681)

It is unknown how many Pacific Islanders were killed during the War in the Pacific. While the numbers would be comparatively small it was not a war that was of their making and those who survived, were greatly impacted. Turner and Falgout (2002: 112) concluded: ‘Those who experienced the intense suffering during the Japanese military buildup and the American campaign describe it as the greatest hardship they ever endured. Similarly, Poyer et al. (2001: 14) found that ‘World War II in Micronesia meant, in short, both terrible suffering and momentous change. Nothing would ever be the same again’.

The period covered by this chapter includes the intense Japanese build-up and the use of war facilities in Chuuk including the important role of shipping, primarily the Japanese merchant marine. The pre-war friendliness of the Japanese with Chuukese changed with the arrival of the Japanese army, and when the war hit Chuuk on 17 February 1944 with the U.S. bombing. Joshua Suka, a Chuukese man I met on Tonoas in 2001 and who was used to make seals for the Japanese before the war, had fond memories of the Japanese facilities in Dublon Town on Tonoas, which included theatres, ice-cream shops and all other kinds of stores (Suka, Joshua pers.comm. 2002). He also told me of a newspaper on Tonoas printed during the war, called the *Torakku Jihō* (*Truk Times*), which Peattie refers to (1988: 337). It would possibly be an excellent source of information about life in Chuuk, but copies have not been found. The war changed Joshua’s world—he was sent away from Tonoas to live elsewhere during the war but today he receives numerous visits (particularly from Japanese) about the Chuuk base during the war. Other chiefs of Tonoas who I met in 2001 and 2002, and who were young men during the war and ‘worked’ for the Japanese all relayed similar stories of good pre-war and bad war times in Chuuk, especially when the Japanese army arrived. Many were used as slave labour during the war to help with establishing Japan’s military facilities on the islands. Esti Puri from Chuuk recalled to Poyer et al. (2001: 261) how the Japanese kept together in groups after the war to restrict retribution from some Chuukese. Many lost their land and the food grown on it and others died. They had little to do with the ships unless they were some of the few that remained and worked on the small supply vessels. When the major U.S. carrier aircraft attacks came in the early hours of the morning, they were most likely to have been asleep in their beds, not working on the ships. The following 18-month bomber attacks and the U.S.

submarine blockades would have made living in Chuuk, like hell on earth. These tangible and intangible remains, scars and stories are a significant legacy of World War II in Chuuk.

The war also had a big impact on the many thousands of Japanese that were left isolated on Chuuk for more than a year. Many died of malnutrition, dysentery or from the bombs. This also included Koreans, Okinawans and some Chinese who were conscripted into the military or served in the Japanese construction teams. Other Pacific Islanders, such as the Nauruans also had their lives dramatically affected forever. It is difficult to fully describe the impact of the war in Chuuk.

Physical scars are easy to describe, but an appreciation of the emotional and mental scars is almost impossible. It is this legacy that will be the most influential in how Chuukese, Japanese, Koreans, Okinawans, Chinese and Nauruans get on with their lives and relationships.

Chapter 6: U.S. post-war activities and impacts

Introduction

This chapter investigates the aftermath of the war. It considers the initial relations between the U.S. Navy administrators, Japanese and Chuukese and how the U.S. set about helping the Chuukese, and using the war-torn region, through an examination of some contemporary documentation. The chapter concentrates on the first few years after the war. It concludes in the early 1960s, when the U.S. initiated a new phase in their administration of Micronesia, and Micronesians initiated steps toward self-rule. In association with the previous discussion, this chapter establishes the context for the following investigations of the historical and descriptive data of the submerged WWII sites which follow in Chapters 7 and 8.

The U.S. Navy in Chuuk

The U.S. Navy visited Chuuk on 28 August 1945 in preparation for a surrender of the Japanese forces there on 2 September 1945. A party of about 20 U.S. military officers and enlisted men, headed by Brigadier General Hermle, met with five Japanese officers, headed by Rear Admiral Sumikawa on the Destroyer USS *Stack*. Lt Comdr A.W. Thompson (1945: 2), Head of the Legal Department, recorded the following details from this first meeting about conditions in Chuuk:

The Japanese army and navy forces have kept a back log of rations for a period of 30 days and 35 days respectively. These were to be used in case of battle, and the rations otherwise consisted mainly of sweet potatoes, including their leaves, and the amount distributed is about one-third of a regular ration. Farms have been divided into army, navy and civilian areas and are controlled jointly. There is no central dump. On Sept. 1, 1944, the civilians were supposed to have been given a year's ration. The officers we interviewed did not know the status of this supply, but it is believed to be depleted.

The number of Japanese military personnel was 38,355 and 'everybody is under weight from malnutrition, other diseases present being dysentery, skin diseases, Typhus and Tuberculosis' (Thompson 1945: 2). The total civilian population was 1,590 Japanese, 9,082 Chuukese, 793 Nauruans, 8 Germans, 7 Spaniards, 6 Chinese and 1 Swede. Medical supplies were critically low although there were six army hospitals and an unknown number of navy hospitals.¹ The priority for

¹ The largest Japanese Navy hospital in Micronesia at that time was located on Tonoas and which could accommodate 850 patients.

the Americans was seen as supplying food and medicine, and liaising with the Japanese Civilian Governor, Aihara in helping Chuukese (Thompson 1945: 3).

Japanese surrender of the Chuuk base and its territory took place on the USS *Portland* on 2 September 1945, which Denfeld (1981: 53) described as the ‘largest surrender in the Pacific’ (Figure 6.1). At that time, the Japanese government was informing all its commanders to ‘negotiate with Occupation Forces concerning safe living quarters [and maintain food supply] of the Japanese until completion of evacuation’ (Japanese Vice Minister 1945). A plan on the demobilisation of the Japanese armed forces was issued, which placed a priority on the demobilisation of certain tradesmen and professional personnel including those conversant in English. In Chuuk, where a number of Japanese, Koreans and Okinawans married Chuukese and had families, it was initially decided that all Japanese must return, Koreans (reported to be seven) could stay, and Okinawans (reported to be 23) who had lived in Chuuk for more than 10 years could stay. Many informed the Deputy Chief Military Government Officer in Chuuk, Commander H.H. McCarley, that they wanted to stay. Some of the Okinawans had been living in Chuuk for 33 years and had up to seven children and this information was passed onto the U.S. Navy commander in Guam (United States Navy (U.S.N) 1946a).² After a few months deliberating, the U.S. military government repatriated all Japanese nationals including Okinawans as they did not want a minority group developing into oppressive elite and possibly a military security problem (Hezel 1995: 249-250). By the end of February 1946, the Japanese population was 2,819 (Emrich 1946: 5).



Figure 6.1: Vice Admiral Hara Chuichi signing surrender documents in Chuuk (Source, Micronesian Seminar).

² In May 1946, 40 Okinawans expressed ‘their earnest desire’ to remain in Chuuk and provided a list of their 48 children, some as old as 25 to the Commanding Officer at Chuuk (Michon 1946).

A U.S. Navy recreation centre

At the time of surrender the U.S. Pacific Fleet Commander Marianas Vice Admiral G.D. Murray, in his first 'General Order Number 1' for Chuuk, instructed the Japanese Imperial Commanders to provide several lists and locations of personnel, aircraft, naval and merchant ships, minefields, documents, maps and plans, and including 'United Nations Prisoners of War and Civilian Internees' (Murray 1945). A subsequent report on the future of Chuuk concluded:

No mission for the occupation forces for Truk Islands has been received other than as set forth in ComMARIANAS OP Plan 4-45. It is, however, understood that Truk is to be used as a fleet anchorage and recreation center. On the assumption that this is correct, it is requested that Officer in Charge Fifth Naval Construction Brigade be directed to initiate and expedite a study of the probable work required and of the construction forces and materials needed to fulfill the needs of Truk as a fleet anchorage and recreation center together with the requirements for the Military Government and Islands Command. Blake also recommended that the airstrip on Etten and any other airfields as required by U.S. carrier forces be made operational. (Blake 1945a)

This document was very optimistic about the future of Chuuk as a U.S. fleet base, but in a further document titled 'Post-war Development Plan of Truk, recommendations for', it was much more circumspect (Blake 1945b). A survey of the facilities in Chuuk found that they were either very limited, such as no deep water wharves, or were destroyed and inoperable, such as the navigation aids, piers, wharves and airfields, or undeveloped, such as the recreation facilities. A total of 18 recommendations were made about the major work required, including salvage of the shipwrecks, and the need for 2,952 officers and enlisted men. No mention was made about Chuukese interests or land ownership in this discussion on creating a U.S. recreation centre. The initial optimistic plans for Chuuk could have been based on a premise that because the Japanese used Chuuk as their Combined Fleet Base, it would have been well equipped with these types of facilities. While it may have been greatly impacted by the bombing, Chuuk was never well set-up by the Japanese, at least not to the extent that the U.S. would have been accustomed to in Pearl Harbor, which was a much larger base. The inadequate and badly damaged facilities in addition to the resources required in rebuilding Chuuk to U.S. standards, are the most likely reasons as to why it was never implemented.

Establishing a U.S. military base on Weno

The U.S. flag was raised on 25 November 1945 at a military facility established on the north-west coast of Weno, which was declared out of bounds to Japanese and Chuukese, including the local villagers and amounted to about one third of the island (McCarley 1945a) (Figure 6.2). In addition, 90 inhabitants of Falo (Fano) Island (a small island 3 km the north-west of Weno) were moved to

Weno, as the U.S. planned to use this island as part of its recreation facilities.³ The U.S. military government used Weno as its headquarters rather than Tonoas—which the Japanese had used, for a number of possible reasons. It has been reported that the U.S. administration did not want anything to do with the former Japanese facilities, which could be interpreted as ‘memorials of Japanese rule’ (Hezel 1995: 251). The U.S. evacuated Japanese from all islands other than Weno and Tonoas, and permitted the Japanese military and civilian administrations to continue to use Tonoas as its headquarters, ‘for the purpose of administration, control and demobilization’ (Emrich 1946: 5). Mitchell (1967: 68) documented how Tonoas was so greatly impacted by the bombing that U.S. administrators decided to establish new headquarters on Weno. In 2006, I was informed of an alternative explanation, that the chief of Weno, Albert Mailo, persuaded the U.S. military to establish their headquarters on Weno for personal financial reasons (Philips, Harris pers.comm. 2006).

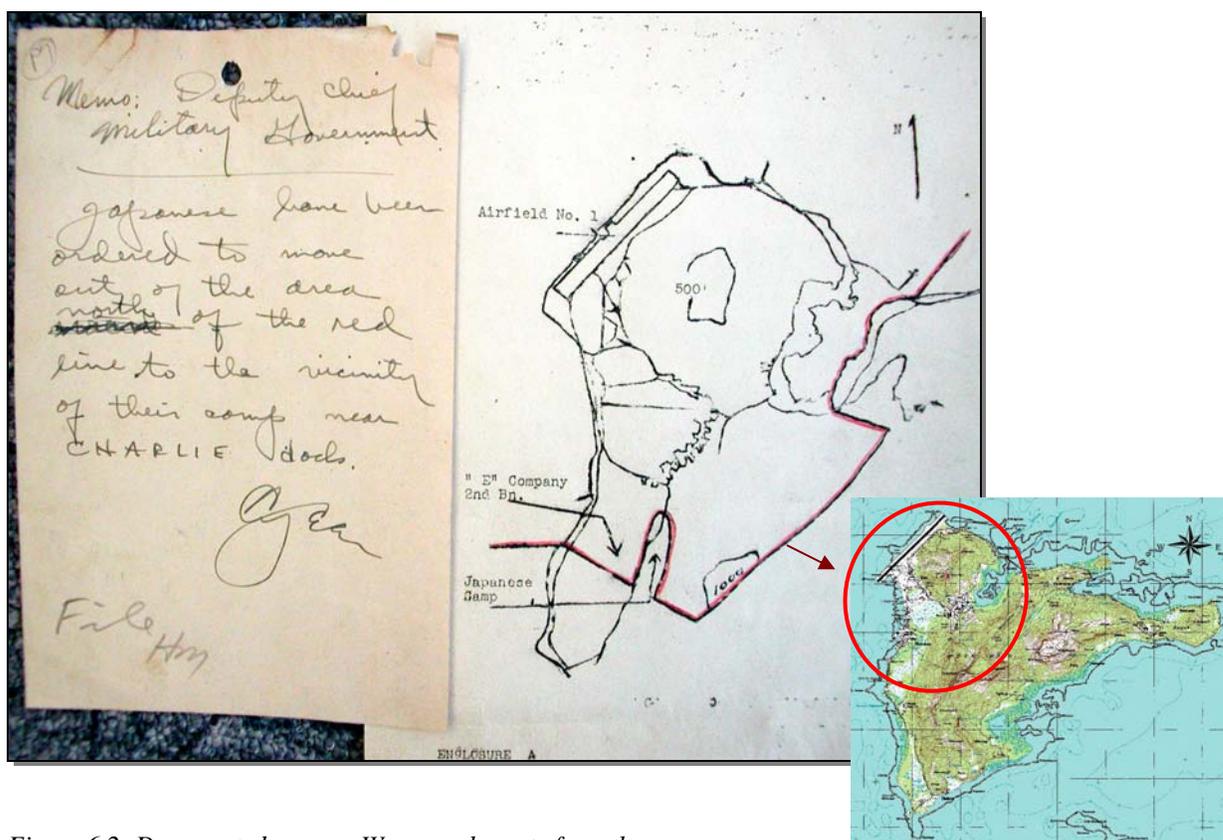


Figure 6.2: Demarcated area on Weno, and a note from the U.S. Navy administrators (Source, NARA Record Group 313, San Francisco).

³ In 1991, former residents of Falu (Fono) island sued the American government for removing them from their island but the case was dismissed, see http://www.fsmlaw.org/fsm/decisions/vol6/6fsm214_221.htm accessed 26 May 2003.

In November 1945 Artie Moses, the chief of Uman Island, was nominated as a liaison between the U.S. military and the native chiefs, given his local status and command of the English language (McCarley 1945a). This is an interesting point as I have detailed later in this chapter. Moses was only elected by the other Chuuk Lagoon chiefs as liaison with the Americans, and as Atoll Chief at the formal Council of Chiefs meeting on the 27 December 1945, four weeks later. It would seem the Americans or Moses, or both, precipitated this election outcome.

‘Truk Atoll Advisory Council’ meetings

An initial activity for the U.S. administrators was to establish a series of formal weekly meetings with representatives of various lagoon islands, initially called the ‘Meeting of Truk Atoll Advisory Council’.⁴ The first meeting took place on 13 December 1945 and the U.S. Military Government Welfare Officer, Lt (jg) James A. Lands, USNR, was ‘appointed as the Navy Military Government representative for contacts with the natives of Truk Lagoon’ (McCarley 1945b). The chiefs representing each island were: ‘Moen, Albert Mailo; Uman, Artie Moses; Dublon, Michiuo Natchuo; Fefan, Ader Era; Udot, Aisder Iron; and for Tol, Upuini Ruopol’. They were accompanied by assistant chiefs and secretaries, who were in some cases from the same family as the chief, such as on Uman and Weno (Lands 1945a).⁵ A review of the minutes of the first few meetings provides some interesting details on the major issues that Chuukese and the U.S. Navy administrators faced in Chuuk and which I have summarized.

At the first meeting of the ‘Truk Atoll Advisory Council’, the U.S. Navy administrators’ issues included the need for a liaison between the chiefs and the U.S. military through a representative of all the chiefs, the improvement of sanitation, for Chuukese to start farming to provide food, confirmation of the appointment of Chuukese Police, and information on Chuukese skilled and unskilled labour to help the American rebuilding efforts (Lands 1945a). To Chuukese, the main points they made to the U.S. administrators were their desire to reclaim their land and homes and to have Japanese moved away as quickly as possible to stop them from destroying their property, concern over money they placed into Japanese postal savings, to obtain more food (especially pigs and chickens), and the need for schooling in the English language. Chief Moses spoke of how the

⁴ The U.S. administrative system entailed a Navy Commander in Chuuk ‘Commander Truk and Central Carolines’ who reported to a Commander for this region of the Pacific who was based in Guam, ‘Commander Marianas Area’ (sometimes via Islander Commander, Guam) who reported to ‘Supreme Commander, Allies, Pacific’ based in Hawaii.

⁵ The U.S. administration formulated rates of pay for chiefs through to unskilled workers, being \$10-\$20 per month for island chiefs and police chiefs, 25 cents per day for unskilled workers (20 cents for women) and 40 cents per day for skilled workers. In October 1946, outer island chiefs were paid \$30 per month. (Lands 1945a).

Japanese had dynamited a church on his island and one of his houses, during the two weeks prior to the meeting and when challenged, they stated we 'blew it up because Americans must clean the shore' (Lands 1945a). This is an interesting issue, as it may have been retribution against Moses for acting as the main Chuukese liaison with the Americans. Chief Albert Mailo from Weno also complained about similar destruction to his property on Weno and he formally notified the U.S. administration about this issue in a memo, two days later.

At the second meeting on 20 December 1945, a vote of 4 to 2 in favour of Artie Moses being elected Atoll Chief was recorded. Dissenting chiefs from Fefan and Udot stated:

Because that one alone could get something for himself if we happened not to agree together. He might be in a position to sway opinion and to get laws in effect that favoured his island but not all. I fear it would not work [and] because Truk Atollers are not united by islands. Each island is a united people, but not as an atoll group. It has never been that way. (Lands 1945b)

The U.S. Navy administrators decided to ratify the outcome of the vote at the next meeting. They also stated that all the Japanese military should be off the islands within a month (although some were still working for the Americans in December 1946) and landowners could start to move back to their islands as the Japanese moved, (to the island of Param for example on 24 December 1945), but they had to wait until the U.S. military allowed them to move. The U.S. Navy personnel at the meeting also stated that Chuukese would be able to get U.S. dollars for their Japanese postal savings, that doctors, a dentist and medical supplies were being brought in, and that the first English school would be open on Weno on 1 January 1946. Chief Moses stated at this meeting that 'the Germans did not have good schools for us, but the Japanese were good about giving us schools for our young'. There was still considerable angst from the Chuukese about the Japanese presence, about them using Chuukese boats without payment, the need for compensation for Japanese occupying their land, cutting down their trees, pulling down timber houses and burning the timber, and the lack of help in rehabilitating their land, houses and facilities (Lands 1945b).

At the third meeting on 27 December 1945, Artie Moses was elected Atoll Chief for three months (and was re-elected at the 13th meeting on 14 March 1946). An issue was raised about how some Chuukese were to be paid for the rent and food provided to the 1,200 Nauruans who had been brought to Chuuk by the Japanese as labour in July and August 1943. An inspection had been carried out on the plight of the Nauruans on Tol in November and found them to be in very poor

health, with about 440 having died, half of starvation.⁶ The U.S. Military administrators were now starting to talk about the need for some Chuukese to establish companies on some of the islands to sell materials and food, about which ‘the chiefs said they could not form companies with too many people or there would be trouble’ (Lands 1945c). The U.S. administrators also wanted Chuukese to establish a handicrafts industry and they were critical of some Chuukese who worked for their Labour Department, saying they were ‘either lazy or don’t want to work’ (Lands 1945c). By 7 February 1946, five schools had been established on Weno and one on Uman, along with three mission schools (two Spanish, one German), but there was a lack of English-speaking teachers for some islands (Lands 1945c).

At the conclusion of the ninth meeting, the new Acting Commanding Officer in Chuuk, Lt Cmdr M. Jennings stated: ‘When we first came here we said we would try to interfere as little as possible with the people and their customs. Although there will be many changes, our aim is the same’ (Lands 1946a). Reports of subsequent meetings were much less comprehensive, such as the meeting on 28 February 1946, where the treatment of the sick (where Chuukese now had to come to a central point), local use of boats, sanitation and recording of births, deaths and burials were the main topics of discussion. The meetings were changed to bi-weekly and by 28 March 1946 only five issues were recorded—a dentist had arrived in Chuuk, the U.S. military government wanted to ascertain how much oil was still stored on the islands, Japanese military personnel wanted to exchange canned food for fresh fruit and vegetables, U.S. military government wanted final submissions of Chuukese claims against Japanese for property damage, and a discussion of ‘native handicrafts and trading’ (Lands 1946b).

War claims

It had been reported at the ‘Truk Atoll Advisory Council’ meetings that for Chuukese to make war claims, they needed to fill-out forms in duplicate in English and they will then be ‘forwarded to Tokyo for disposition’. I found a 14 page hand-written report on ‘The Law of Claims’, as it pertained to those affected by the war with records from the U.S. Navy Unit based in Chuuk during

⁶ An inspection of the 746 Nauruans still on Tol (apart from 15 Nauruans on some other islands this is all that remained of the 1200) was carried by Lt J. Lands and Lt Commander A. Fruit in November 1945. They found the Nauruans to be in fair to poor physical condition, with 150 cases of yaws living on 300 grams of sweet potato and in housing that is ‘extremely primitive even for the standards of these people’. It was estimated by a Nauruan Medical Practitioner that about 50% of the deaths (about 220 Nauruans were due to starvation). Other relevant points that came out of the inspection were that ‘they have been treated fairly by the Japanese since the end of the war, but rough before. They also were disliked by natives of Truk due to the Nauruan’s dislike for the Japanese. The chief [of the Nauruans] stated many of the young natives of Truk were pro-Japanese’ (Fruit and Lands 1945).

my research in the U.S. National Archives and Records Administration (NARA). The anonymous report (but perhaps from the hand of Lt Comdr A.W. Thompson, Head of the Legal Department, U.S. Navy) found that Chuukese could claim, through *The Foreign Claims Act*, compensation for damage, injury and death caused by military forces provided they were 'friendly' to the U.S. and it was not as a result of enemy or U.S. combat. The final comment in this document is, 'It is the intent of Congress that such claims shall not be paid' (U.S.N 1946b, emphasis in original).

Economic development

Dorothy Richard, who prepared the officially commissioned record of the U.S. Navy's occupation and administration of Micronesia from 1944 to 1951, concluded that helping Micronesians and the restoration of their economies were the priorities for U.S. administrators (Hanlon 1998: 26). In Chuuk:

The three islands which contain proportionately the largest amounts of ex-Japanese land, Dublon, Eten and Parem, by virtue of the extensive Japanese activities on them, have been rendered so unproductive that they are practically destitute. The inhabitants of Dublon and Parem do not even have enough money to pay their head tax, leaving the municipal treasuries practically empty, while the people of Eten cannot even begin to provide for their minimum subsistence needs. (Law 1950: 2)

Within a few months of the U.S. arriving in Chuuk, the Navy administrators had established some health care, schools and jobs for Chuukese. However, they had also alienated some Chuukese from their land, re-established a whole-of-the-lagoon chief similar to what the Germans had established, introduced a tax system on each and every person to help pay for public works, and criticized the work ethic of some Chuukese though they were keen to assist them in various commercial ventures which some Chuukese as problematic. In an April 1946 report on the United States Commercial Company (U.S.CC) activities in Chuuk, industries such as handicrafts, soap manufacture, fishing, boat repair and a bakery were being developed with total sales in March being \$11,205.03 (Sproat 1946). The U.S. military government and the U.S.CC employed about 400 Chuukese who were receiving \$1,800 in total per month in salary. The report noted: 'The labor supply in Truk is of the lowest type. The ordinary farmer found in the Marianas does not exist in Truk and the natives haven't the slightest idea of systematic farming', although it did also note that 'there is no island in the Truk atoll where any sized mechanized farming can be carried on' (Sproat 1946). The U.S.CC report for the end of August 1946 found that handicraft sales amounted to \$404.60, while the copra press (for soap manufacture) was in operation, but the only available copra was in the outlying atolls and limited soap was being made (1,912 pounds). An estimated 20,000 pound of trochus shell was harvested, with half of poor quality and being rejected. In relation to agriculture, people were

left to themselves, as they were keen to repair homes, roads and working around their own small farming plots adjacent to their homes. The inspection tour on which the report was based, 'showed surprise at the small amount of handicraft and lack of trade goods', which was noted could be 'rectified when regular transportation and shipping is established' (Sproat 1946). The U.S.CC implemented an anthropological and economic study of Chuuk in 1946 (Hall and Pelzer 1946) as they did throughout Micronesia, which 'redefined Micronesian life in terms of the priorities, objectives, and categories of analysis of an alien social order' and 'contributed to the possession and remaking of Micronesia' (Hanlon 1999: 69).

U.S. contradictions

Hanlon (1998), Hezel (1995), and Poyer et al. (2001) provide a further view of the aftermath of the war in Micronesia. This includes an analysis of the push by the U.S. to introduce personal freedom, democracy and economic development. The first U.S. Navy administrators announced to Micronesians that they were now free, 'but they had little context in which to interpret the announcement' and some Micronesians 'interpreted it as meaning they had no more obligations to their chiefs' (Poyer et al. 2001: 279). The personal freedom the U.S. announced also conflicted with the system the U.S. Military government was putting in place, where they were making some islands and sections of islands off-limits to Chuukese landowners. The introduction of a 'Truk Atoll Advisory Council' in 1945, being a mixture of traditional village chiefs, interpreters and men solely appointed by the U.S. Military government was a system similar to that initiated by the Germans and continued by the Japanese. It was not a new democratic system and, 'it was found that certain island chiefs paid little attention to our military government except to use it as a means for exploiting their own people, by diverting to their own use labor, money and supplies poured into their islands by the U.S. Government' (Hall in Poyer et al. 2001: 284). In 1948, 118 municipalities were created with elected officials and the U.S. was establishing another contradictory system, this time in the name of democracy. This is exemplified in a number of cases where some of the chiefs acting in their U.S. designated positions as judges attempted to have some of their people convicted of crimes of 'disobedience to chief' and 'lying to the chief', rather than using traditional disciplinary methods (Furber 1951).

Hanlon's (1998) further work on the economic development of Micronesia is illuminating and argues very effectively that the U.S. was very keen to Americanize Micronesians and create 'a society in which individuals pursue through unfettered economic activities the satisfaction of their perceived needs and induced wants'—based on a view that economics formed a major part of

everyday American life and culture (Hanlon 1998: 6). The U.S. developed an economic policy for Micronesia in December 1945, which included the development of such industries as soap manufacture, fishing, livestock, handicrafts and the formation of local commercial companies. Revival of the livestock and fishing industries failed, which demonstrated that the fishing industry in particular was still viewed as subsistence (Hanlon 1998: 37). The handicraft industry appeared to be stymied due to the lack of transportation to markets, essentially ships, and by the U.S. Bureau of Customs from a June 1945 decision that treated the Pacific Islands as a foreign territory and meant that handicrafts imported into the U.S. would attract import duties. It was known coconuts had been decimated through the bombing, yet a copra press was re-established in Chuuk. It has been shown through the meetings of the 'Truk Atoll Advisory Councils' that Chuukese had more immediate problems, such as re-establishing ownership of their land, re-building their homes, attempting to get some of the wealth they had accumulated through Japanese savings, improving their health, and gaining an education in another foreign language.

Chuukese views on the U.S. war victory

While the immediate post-war period was welcomed and had a positive evaluation throughout Micronesia, a number of Chuukese interviewed by Poyer et al. (2001) were openly critical of this period compared to the pre-war days under the Japanese stating: 'When they [Americans] came, they brought corned beef and distributed it to the people for a few months. After that, it stopped. And there were not enough jobs to go around. On the other hand, during the Japanese time, there were more jobs than there were workers' (Ichios Eas interviewed and reported in Poyer et al. 2001: 292-293). Salaries paid to Chuukese by the U.S. during the period January to July 1946 totalled \$20,460 compared with \$386,129 paid by the Japanese for the first half of 1937. On 1 October 1945, when the 'U.S. Military Government Unit, Truk' was first commissioned, 31 officers and 83 enlisted men were assigned duty (McCarley 1945a: 16). In 1946 only 55 U.S. Navy personnel were based there, which greatly contrasted with Japanese pre-war days when many Japanese civilians and Chuukese worked and lived side by side and many were fluent in the Chuukese language. This would have contributed to the feeling amongst Micronesians that Americans were more bureaucratic and less keen to befriend Chuukese (Poyer et al. 2001: 292). Coupled with the fact that a number of Chuukese and Japanese married and had children, some of whom fought for the Japanese outside of Micronesia, this level of 'sentiment and emotion was not easily forgotten or overcome by American liberation of the islands' (Hanlon 1998: 25). Lieutenant John Useem (1945) of the U.S. Naval Reserve wrote a number of reports and journal articles about American military rule in Micronesia, the reactions of the Micronesians to American rule, the war and relations

between American, Micronesians, Japanese and Koreans. In September 1945, he concluded: 'Micronesians do not regard the Americans as liberators who saved them from an awful fate'. In fact he saw the welfare of the people as much poorer given the Japanese had 'provided a high material standard of living and security' (Useem 1945: 100). Hanlon (1999: 70) also cites further work by Useem about Micronesian resistance against Japanese colonialism before and during the war and how Micronesians maintained a 'viable cultural identity that allowed for survival even in the face of a world war'.

United Nations Strategic Trusteeship: Trust Territory of the Pacific Islands

In July 1947, the newly formed United Nations awarded a strategic trusteeship of Micronesia, the Trust Territory of the Pacific Islands (TTPI) to the U.S., which allowed them to establish military bases in the islands as well as providing them with a licence to develop and influence every major aspect of life of the Micronesians (Hanlon 1998: 52) (Figure 6.3). In 1947, four CIMA anthropologists went to Romonum Island in the lagoon, to implement anthropological studies at the request of the U.S. Navy. Under the leadership of George Murdock from Yale University, the team included three advanced graduate students: Thomas Gladwin, who investigated Chuukese life cycle and personality; Frank LeBar, who investigated technological and economic aspects; and Ward Goodenough, who investigated interactions, patterns and religion. The CIMA program, which provided for 43 participants to implement research in all of Micronesia was reported by Murdock as 'the largest and probably best equipped expeditionary survey in the history of modern anthropology' and is regarded as being implemented to support military rule in Micronesia (Hanlon 1999: 69-70). While the CIMA program is acknowledged as greatly enhancing an understanding of Micronesian life and culture, Hanlon (1999: 71) is critical of the 'blinkered understandings of the depth and dimensions of the islands' pasts', which is a legacy of the war and colonialism. Campbell (2002) expands on the use of American anthropologists in Micronesia and compares the British and Australian colonial uses of anthropologists in helping to administer their colonies, often with mixed success and usefulness. He notes an example of an anthropologist in Chuuk who was frustrated by the 'failure of American officers to relate to Trukese concepts of authority, or to understand the nature of chiefly power with the result that resentment developed. One of the limiting factors was the continuing racism of American officers who classed the Trukese as "blacks" or "Negroes"' (Campbell 2002, note 8).



Figure 6.3: 'Facilities for the headquarters of the TTPI in Chuuk, 31 January 1950'
 (Source, NARA Washington, Record Group 313, Entry 344, Box 6939, File A9-4 Monthly report).

Impacts on Chuukese chiefs

Immediately after his anthropological research, Gladwin worked (from February 1948-1951) as an adviser to the U.S. Navy, and then as District Director of Internal Affairs and Economics, Civil Administration Unit in Chuuk. In December 1950, he wrote 'a rejoinder' for publication in a later issue of the same journal as an article by Edward Hall (1950), who was critical of the navy government in Chuuk. I obtained a copy including 'the more controversial aspects of the article' that were to be deleted from the published version (Gladwin 1950). The 30-page memorandum provides a first-hand account of what Gladwin saw as the problems that the U.S. Navy government faced immediately after the war and during the next five years. The major focus of the memorandum is concerned with the 'excesses' or corruption of newly appointed chiefs, the election of the new island chiefs and the problems this caused. Many were not hereditary chiefs, and unlike these chiefs, they held administrative as well as judicial powers sanctioned by the colonial administrators (a similar system used during the German period) so that the traditional influence of relatives and others over a hereditary chief was gone. This administrative system, from Atoll chief to local officials, created a seven-tiered hierarchy, with seven levels of excesses by these officials. Gladwin referred to many of these chiefs and officials as 'half-castes' who had a great advantage over most other Chuukese, for example, in knowing the English language and thus their ability to work with the U.S. Navy government as interpreters (Gladwin 1950: 5-6, 28).

According to Gladwin (1950: 13) from 1948, the U.S. Navy government (with a new breed of more qualified officers from the U.S.) commenced a program of reducing this level of hierarchy. Artie

Moses, the Atoll chief appointed in 1945 was dismissed for misappropriation of U.S. funds that were meant for his island and his people. A number of the other appointed chiefs used their language advantage to acquire personal wealth that should have been distributed to their people when working with companies such as the U.S.CC, who pulled out of Micronesia in December 1947 because of problems with freight and quarrels with navy administrators. The U.S. Navy government in Chuuk eliminated five levels of hierarchy—the position of Atoll Chief, Assistant Atoll Chief, Atoll Secretary, Island Councilmen, and Assistant Island Chief—and worked directly with the Island Chiefs. However, they also established another level of chiefs through splitting the region into an eastern and a western district, each with their own chiefs. Island chiefs were elected through secret elections and ‘good men’, that is men ‘perpetrating few intentional injustices on their people’, were being elected. If not good men, then they were ‘either pressured by the administration into resigning or were actually deposed’. In other cases, not so good men who were chiefs passed the word around that voting against them would be voting ‘at their own peril’ (Gladwin 1950: 17-18). Gladwin considered that elected chiefs were shown the same respect as hereditary chiefs.

In summing up, Gladwin contemplated if the disruption and changes to Chuukese society were justified. While commenting on the ‘remarkable vitality and flexibility’ of the Chuukese culture, ‘which has absorbed an enormous amount of change without losing its primary function of fulfilling the physical and emotional needs of its members, [he considered] it is not sufficiently flexible to return to a completely self-sufficient basis’, citing the loss of certain skills and acquiring superior and more desirable housing, boats, clothing and tools (Gladwin 1950: 27). He considered that the exploitation learned by some Chuukese and the introduced diseases could only at present be controlled by a foreign administrator. In the end, Gladwin concluded:

We still could not in good conscience ignore all these problems and let the Trukese shift for themselves. We will of course, being Americans, try to improve their way of life; but our primary mission is simply to fill the functional gaps left in their culture by the effects of the previous administrators and our own. If only this is our objective, it is nonetheless essential that we remain and attempt to fulfil it, whether our presence is disruptive or not. (1950: 28)

‘Rust Territory’ of the Pacific Islands

Although filling the ‘functional gaps’ left in Chuukese culture may have been a primary mission of Gladwin the anthropologist, the U.S. government had another mission in mind—a strategic dependent colony.

In 1951, civilian administrators from the U.S. Department of Interior replaced the U.S. Navy. The *1985-1989 FSM First National Development Plan* (OPS 1985: 4) referred to the navy period as a time when ‘there was virtually no internal development, either economically or politically’ and which produced the term ‘rust territory’ (Hezel 1992: 16). While a 1950 report from the ‘High Commissioner of the Trust Territory of the Pacific Islands to United Nations Trusteeship Council’ identified some gains such as ‘thriving local wholesale companies in Truk’, it also found a number of problems that put the blame on Micronesians, ‘the basic characteristics of its people ... language and ethnic barriers ... extensive transportation requirements; and a dearth of economic resources’ (United Nations Trusteeship Council (U.N.TC 1950: 1). For a further 10 years under civilian administration the area continued to languish (OPS 1985: 4) until a 1961 United Nations Visiting Mission’s report concluded in strong anti-colonial language that U.S. neglect must end and they must prepare Micronesia for self-government (Hanlon 1998: 91). A report was prepared by the U.S. under the leadership of Professor of Business Administration, A. Solomon, in 1963, which acknowledged the poor community facilities and stagnate local economy (Hanlon 1998: 92). The *1985-1989 FSM First National Development Plan* (OPS 1985: 4) reported that infrastructure projects were subsequently carried out and educational and social services developed but there was also some criticism of this development purporting that the plan was to ‘systematically Americanize Micronesia’ (Hanlon 1998: 93). This was confirmed in a document from President Kennedy on 18 April 1962—before Solomon had been to Micronesia and prepared his report—stating that Solomon should bear in mind ‘the security requirements of the United States in the area; and the U.S. long-term objective of developing the Trust Territory as a viable territory permanently associated with the United States and enjoying a standard of living consistent with such association’ (Kennedy 1962).

Micronesian self government

In 1965, the first steps towards a Congress of Micronesia were initiated and in 1978 the Federated States of Micronesia (FSM), incorporating Yap, Chuuk, Kosrae, and Pohnpei as capital, was born with a Constitution. In 1979, the FSM, national and state governments commenced administering the country, assisted by U.S. bureaucrats. An agreement (a Compact of Free Association) between the FSM and the U.S. was executed in 1982 and in 1986 it came into being—with the U.S. controlling the FSM security and foreign affairs. This first compact ran out in 2002, and in 2004 a new 15 year compact commenced.

Conclusions

Chuukese would have been very relieved to have gained U.S. support immediately after the war. However, initial U.S. plans for Chuuk were for a fleet anchorage and recreation centre with no reference to Chuukese people and their land (Blake 1945a). It is as if Chuukese were invisible in their own land. Within a short time, and a change of plans not to proceed with the recreation facilities, U.S. impacts and aims became similar to earlier Japanese time—imposition of another official language, alienation of land, manipulation of the traditional political and social structures, and acquisition of the territory through a United Nations system leading to independence with strings attached. Japanizing Micronesia was replaced with Americanizing Micronesia. In the words of a post-war U.S. administrator in the Marshall Islands, Pomeroy (1951): ‘What the United States wants of Truk and like islands was presented quite succinctly by the Subcommittee of the House Naval Affairs Committee in presenting the Navy’s plans for bases in the Pacific, to the effect that Truk was to be held to keep other powers out’.

As part of the 1952 San Francisco Peace Treaty, Japan accepted the United Nations 1947 Strategic Trusteeship awarded to the U.S. and renounced all claims and titles in Micronesia (Peattie 1988: 317). It was also blocked from investing in Micronesia until the mid 1970s. In the 1980s Japan had a dominant economic presence in Micronesia. Investments in Palau were more than the U.S. trusteeship budget and today Japanese-owned tourism facilities are spread throughout Micronesia, as are Japanese tourists. Japanese companies instigated these activities through a ‘carefully modulated program of economic and cultural exchanges and a two-way dissemination of information in Japan and Micronesia’ unlike during its colonial period (Peattie 1988: 318). Today, descendants of Japanese / Chuukese marriages hold powerful and influential positions in the FSM government, Chuuk government and business.

In this chapter (as elsewhere in this study) I have been mindful of an assessment from Hanlon (1999: 71) on the need to see ‘Micronesians as agents, actors, negotiators, appropriators, and manipulators’ during different colonial regimes and the war, and that they have been ‘involved in making their pasts’. Colonial regimes, particularly the Japanese regime with the large number of Japanese immigrating to Micronesia have certainly dominated Chuuk’s history but not their identity, which has been expressed by Gladwin and Sarason:

For a Trukese, being a Trukese is in itself an important and valuable fact. Many of them have seen their administrators at close hand, lived with them in their houses, often grown fond of them (and especially of their children), and adopted from them many devices and materials they found valuable;

but with rare exception they do not want to be more than superficially like them. They simply want to remain Trukese. (1953: 46)

During the war, Chuukese people dispossessed of their land and houses were accepted into other villages and islands by other clans. This kept them alive during what would have been a long and terrible period. *Itang*, the traditional war strategists, became strategists in subverting the Japanese military, but it is known that many did not fight back for fear of Japanese retribution. After the war, while having lost over 1,000 people, Chuukese were quick to re-settle back onto their home islands and villages and they immediately took-up the offensive against the large numbers of Japanese. This was seen in the 'Truk Atoll Advisory Council', where they played the Japanese off against the Americans in getting their land back, and new houses built. As part of the Micronesian negotiations with the U.S. on their future political status, they 'bargained with their strategic geographical position to provide for their economic needs. Here, global politics is local economics. International security issues are the financial underpinning of modern Micronesia' (Poyer et al. 2001: 348).

Motives for the colonialization of Chuuk were also concerned with its strategic geographical positioning. Impacts of these periods were in a reworking of Chuukese social and political systems that suited the colonizer and some of the colonized, but which upset traditional systems of answerability. The same could be said about other introduced systems, such as education and businesses, all based on what the colonizer needing to extend and maintain their dominance. Some of the systems have been either adopted or adapted since in combination with traditional Chuukese cultural systems to provide a distinctive Chuukese identity (Poyer et al. 2004: 320).

In a country where land is scarce and valuable, and has fundamental connections with Chuukese identity, one of the major impacts of colonialism has been in Chuukese clans losing their land. While the Japanese had a massive immigration program and acquired large areas of land compared to the Americans, this has been felt during both periods, and the legacy is there today, in relations between Chuukese and all those that have an interest in their land. This includes the many, and by far the largest number of physical evidences of colonialism in all of Micronesia, the Japanese World War II remains on the islands. The military facilities were extensively damaged by 18 months of U.S. bombing and this included Chuukese land and property. A legacy that has resulted concerns war claims and reparations, and where Chuukese claims have exceeded in total all of the other claims from Micronesian regions, which is discussed in Chapters 9 and 10.

Chapter 7: Historical research into the submerged World War II sites

Introduction

This chapter provides information about the nature and extent of the submerged World War II sites in Chuuk Lagoon, based on primary and secondary documentary records. Four primary historical documents and four secondary historical sources were consulted to provide a comprehensive assessment of the World War II shipwrecks located in and around Chuuk Lagoon. Material not used includes 4 February 1944 Truk reconnaissance photographic data recorded by the U.S. (although this data is discussed briefly to provide a general overview of the shipping activities in Chuuk), the many action reports from USA aircraft and carriers, and communication and intelligence data from Chuuk and the various ships. This archival material was not investigated due to the great quantity of data and its potentially limited application in this study. It has been investigated and used in the work of Bailey (2000) which is extensively consulted in this study.

In relation to aircraft losses, the primary historical source which includes statistics prepared by Rear Admiral Sumikawa Michio, Commander in Charge of the 22nd Air Flotilla in Chuuk until January 1944, in addition to sources such as Japanese and American pilot estimates are contained in U.S.SBS (1947). Bailey (2000: 480-494) was also useful in compiling a list of known aircraft wrecks in Chuuk Lagoon. The chapter is organized to provide an analysis of the shipwrecks located in the lagoon, and a separate section on aircraft lost, given different historical sources are used in their investigation.

Ship anchorages in Chuuk Lagoon

The USA reconnaissance photographic flight over Chuuk was implemented on 4 February 1944. The subsequent 'Truk-Air Target' (JICPOA 1944c: 1-2) report identified three main anchorage areas for vessels and made the following comments on vessels using the base:

The Truk Islands, pivotal point for the Japanese defense of the Central and West Caroline Islands, have unlimited fleet anchorage, three airfields and large supply facilities ... However Truk is not believed to be well adapted for the repair or maintenance of large vessels. Terminal facilities are on a minor scale. No wharves at which a ship larger than a destroyer can tie up to have been reported. ... A 390 foot floating drydock was photographed January 1942, off the southwest shore of Dublon Island. ... A recent report states that a 30-ton floating crane has been installed in Truk. ... There is no evidence that docks for large vessels exist at Truk. The largest vessel known to have docked directly at

a wharf is 2,000 ton DD [Destroyer]. Major unloading facilities are not believed to be present. A captured Japanese report of 1942 referred to the use of lighters for unloading ships.

The map accompanying the report identifies three anchorages, one to the south-west of Weno, another to the south-east of Weno, and a third to the south-east of Tonoas (see Figure 5.4). The report identifies a number of vessels located in the anchorages, but in most cases only a general class for each of the vessels. It provides a few wrong vessel identifications (including the *Yamato* instead of its sister ship *Musashi*), and two correct identifications, the Submarine Tender *Heian Maru* and the Fuel Oil Tanker *Tonan Maru* (Bailey 2000: 101-102).

Primary historical documents used in compiling a list of shipwrecks

This historical research includes all Japanese World War II ships destroyed or sunk in and around Chuuk Lagoon, although the field surveys were limited to inside the lagoon owing to the very deep water outside the lagoon. The aim of the historical research was to be as comprehensive as possible in ascertaining which ships were sunk inside the lagoon, therefore including all known shipwrecks in and around Chuuk Lagoon. I also investigated the loss of any American World War II ships destroyed or sunk in and around Chuuk Lagoon. Only one American ship was known to have sunk in the vicinity of Chuuk, being the submarine *Corvina*, which is reported to have sunk on 16 November 1943, at about 100km south with the loss of 82 lives.¹ This vessel is not included in further research or found on any of the lists that follow. The only reference to a non-Japanese World War II shipwreck located in Chuuk Lagoon comes from Young et al. (1997: 22) and Craib (1997: 48). In their research on the ethnography, and archaeology of Chuuk, they were informed of a Spanish / European ship sunk to the south-west of Tonoas late in the 19th century. Craib (1997: 48) found on inspecting the area, a ‘metal porthole and a three-pronged anchor’ which, given the amount of historic debris scattered about, was inconclusive as to its Spanish identity.²

The four primary historical records, which are listed below, were considered the most useful and accessible in determining which ships were sunk in Chuuk Lagoon, and together with *Lloyd’s Registers* on the specifications of Japanese ships, they provide a good check on the secondary sources. Documents considered to be primary historical sources were official U.S. and Japanese war records. This included any documents that were compiled from interviews and statements of Japanese and U.S. military service personnel and published by the U.S. military within a few years

¹ Source, U.S. Naval Historical Center Underwater Archaeology Branch database of U.S. World War II ships lost in the Caroline Islands <http://www.historycentral.com/Navy/index.html> accessed 30 October 2007.

² These artefacts have not been re-located but it should be possible to ascertain if they are of Spanish origin. The site has not been inspected as part of this study.

of the end of the war. The four primary historical sources investigated to compile the list of ships reported to have been sunk or damaged at Chuuk include the following:

Japanese Naval and Merchant Shipping Losses during World War II by all causes

The U.S. Joint Army-Navy Assessment Committee (JANAC 1947) prepared this list of Japanese ships lost during World War II, which numbered 3,032 (10,583,755 tons) merchant and naval vessels, over 500 tons. This document was compiled through an investigation of various Japanese and American military reports and Japanese ship-owners' lists over a four-year period (JANAC 1947: ii). The ships are arranged chronologically providing longitude and latitude for each loss where known. The two most important dates for the sinking of the ships in Chuuk are 17 and 18 February 1944, and 30 April and 1 May 1944, therefore the majority of the ships sunk in Chuuk can be easily found in this document. Vessels identified in this source are shown in the column labelled 'JANAC' in Appendix 4. It does not include vessels damaged, only vessels sunk or lost. Appendix 4 is a consolidated list of all ships sunk in and around Chuuk Lagoon as identified in these primary and secondary historical sources.

The Reduction of Truk

The publication *Reduction of Truk* (U.S.SBS 1947) also provides some useful general information about some of the ships sunk. It records 'all naval ships and 31 merchant ships wiped out' on 17 and 18 February attack and more than 20 ships sunk on 30 April and 1 May, but only names a few ships. This document is considered to be a useful general resource on war losses in Chuuk, but is the least useful in terms of the ships sunk. A list of the vessels identified by U.S.SBS (1947) is shown in the column labeled 'NAD' (Naval Analysis Division of the U.S. Navy) in Appendix 4.

The Imperial Japanese Navy in World War II. A Graphic Presentation of the Japanese Naval Organization and List of Combatant and Non-Combatant Vessels Lost or Damaged in the War

Japanese Monograph number 116 (U.S. Navy 1952a) includes lists of combatant and non-combatant vessels lost at various stages during the war and prepared by the Japanese government. The Japanese Monograph series was initiated in October 1945 at the U.S. General Headquarters, Far East Command who directed the Japanese Government to prepare a complete history of the war in the Pacific. This history developed as a series of operational monographs which were written by former officers of the Imperial Japanese Army and Navy. They were checked and re-written in 1952. The ships identified in this monograph as lost at Chuuk are labeled 'JM 116' in Appendix 4.

Inner South Seas Islands Area, Naval Operations, Part II, Marshall Islands (December 1941 - February 1944), Defense Operations

Another Japanese Monograph number 173 (U.S. Navy 1952d) provides a list of ‘Damages and Losses inflicted on Japanese Naval Vessels and Shipping in the Truk Area on 17 and 18 February 1944 by U.S. Task Force’. These vessels are labeled ‘JM 173’ in Appendix 4. Although a majority of the ships in Chuuk Lagoon were sunk on 17 and 18 February, some were sunk later and the limitation of this list is therefore highlighted.

The U.S. Navy through the aircraft carrier attacks sunk the majority of the ships in Chuuk Lagoon. However, some ships were damaged or sunk by U.S. land based B-24 and B-29 aircraft from March 1944 through to August 1945 although many of these were the smaller merchant vessels of less than 500 tons. Documentation on the sinking of some of these vessels can be found in U.S. 7th Air Force Mission Reports which were not consulted in this thesis but a synopsis of these reports can be found in Bailey (2000: 172-173, 249-252).

Secondary sources used in compiling a list of shipwrecks

The following secondary historical sources were investigated and used as sources of information in compiling the list shown in Appendix 4, being Bailey (2000), Carrell (1991), Lindemann (1982, 1990), and Hezel and Graham (1997) (labeling this last work in Appendix 4 as ‘Graham’). Background on these sources can be found in Chapter 3. Lindemann has also produced a number of dive slates, with plans and elevations for a number of the shipwrecks and a loose leaf publication specifically aimed at the diving tourist (Figure 7.1).

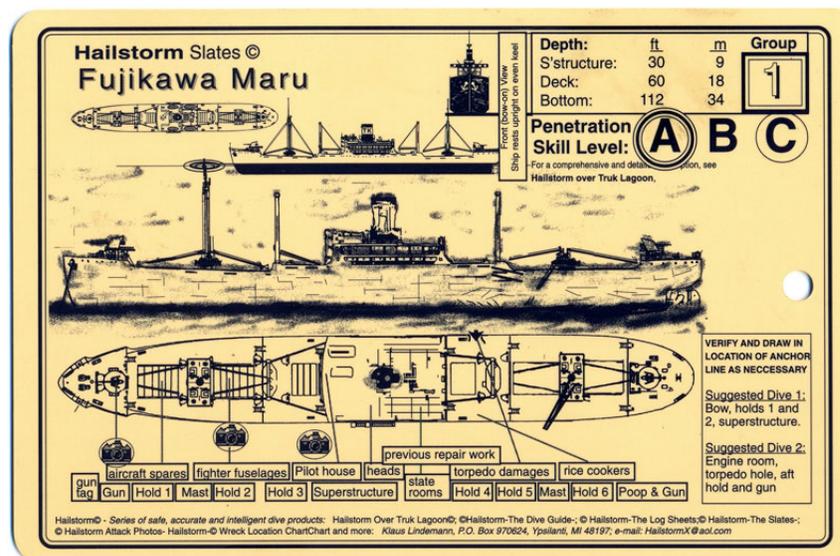


Figure 7.1: Underwater slate (Source, K. Lindemann).

Bailey, Lindemann and Graham used their numerous years of implementing site surveys to compile their lists. I am also aware that Bailey (2000: 496-497) used three of the primary historical sources I have used (and various others), Lindemann (1982: 361) used only one, and Hezel and Graham (1997: 43) two.

I have compared the four secondary historical sources with the four primary historical sources and compiled the list shown in Appendix 4 to illustrate the differences and discrepancies in information. The columns in the appendix record the date taken from the historical source for when the ship was sunk or damaged. Sites have been color coded to assist in their identification and analysis and relate to the colours used in Figure 7.2.

Chuuk Lagoon's Shipwrecks³

From the list contained in Appendix 4, it can be seen that a total of 112 Japanese ships (using no duplicate names) were sunk or damaged in and around Chuuk Lagoon. Those highlighted in yellow (41) have at least two references to them being sunk only inside the lagoon and have no references to them being located outside the lagoon or being damaged. Those highlighted in green (46) contain at least one reference to them being sunk inside, and one reference to being sunk outside of the lagoon. Those highlighted in purple (1) were sunk but refloated. Those highlighted in blue (9) were damaged only and not sunk. Those highlighted in red (15) contain only one reference and their provenance is considered problematic. This is shown graphically in Figure 7.2.

The purpose of the list was to establish, with some degree of certainty through an interrogation of the eight different sources, which ships were sunk inside Chuuk Lagoon. What can be stated with a fair degree of certainty is that 41 vessels of 500 or more tons were sunk in the lagoon. The three most informative records, JANAC (1947), Japanese Monograph 116 (U.S. Navy 1952a), and Bailey (2000) record a further six, eleven and ten vessels respectively to have sunk in the lagoon with the following vessels on at least one of the historical records, as well as in Bailey (2000), being *CH 29 Submarine Chaser*, *Katsurigisan Maru*, *Oite* and *Shinkoku Maru*. Bailey's is the only one of these three source to have combined site surveys with historical records and he places an additional two vessels inside the lagoon, being two unknown lighters/inter-island supply vessels (most likely under 500 tons). Incorporating these additional six ships into the list, it is concluded a total of 47 shipwrecks are located inside Chuuk Lagoon.

³ Ship nomenclature is a significant factor in researching Japanese vessels. English translations of the kanji text (Chinese characters) which is the main (but not the only text, particularly pre-World War II) can vary as Bailey (2000) has highlighted in his research with a number of ships having different translated names.

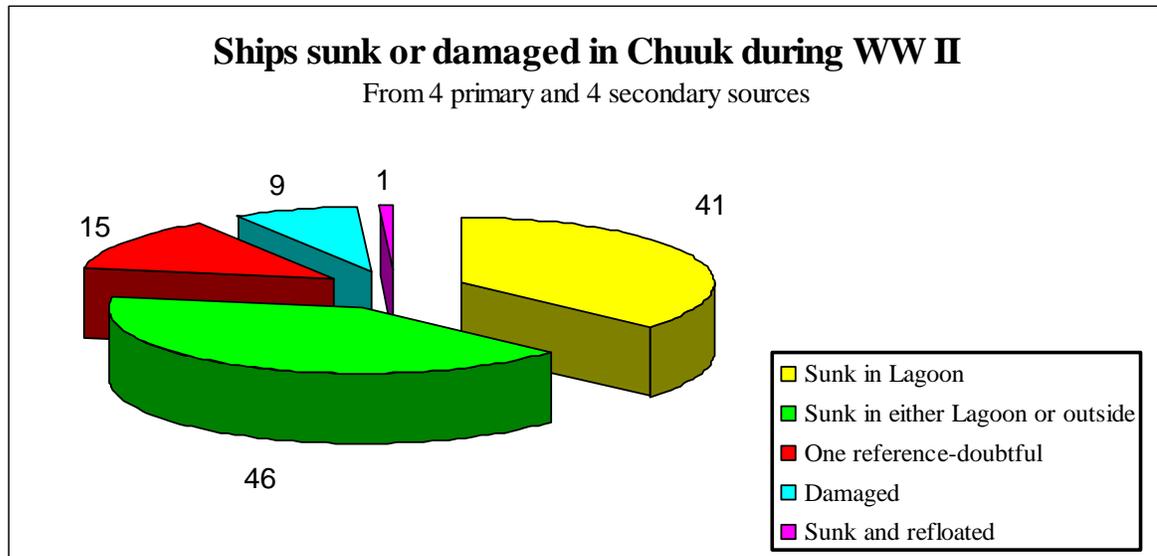


Figure 7.2: Ships sunk in and around Chuuk Lagoon, from primary and secondary records.

At least three anomalies were found when comparing the primary historical records with those of Bailey (2000) and Lindemann (1982) which incorporated site surveys. The *Oite* and *Katsurigisan Maru*, reported to have been lost outside the lagoon have since been identified and located inside the lagoon. The *Tachi Maru* is recorded by Bailey (2000: 458) as being of 1,891 tons and reportedly sunk in Chuuk on 17 February 1944. JANAC (1947: 59) records a vessel of similar tonnage was sunk on 24 May 1944 and located at 30°N; 116°48'E which places it about 100 km from the coastline inside mainland China. Another minor anomaly was found between U.S.SBS (1947) and Bailey (2000) regarding the loss date of the *Sapporo Maru*. Bailey (2000: 439) documents that it was possibly sunk on the 4 or 5 April, 1944 by B-24 aircraft, while the U.S.SBS (1947: 14) records that it was lost as a result of the second carrier attack on 30 April-1 May 1944.

Captured Japanese documents

While implementing research at the U.S. National Archives and Records Administration (NARA) in San Francisco and Washington, two additional documents related to the ships sunk in Chuuk Lagoon were located. One is titled, *Eastern Branch 'Toubu Shicho' Office 1944-45: Ship Plate Inspection Department Record* (Imperial Japanese Navy (IJN) 1945a). Information contained in this document was not used in compiling the initial historical database as there is some conjecture that some of the ships were sunk elsewhere other than Chuuk, and further research is required. The second document titled, *Report regarding Muraki Maru*, while not included in the initial historical database, is included in the final list of shipwrecks, given it is clearly located in Chuuk Lagoon (Imperial Japanese Navy (IJN) 1945b).

Eastern Branch ‘Toubu Shicho’ Office, 1944-45

八三	八四	八五	八六	八七	八八	八九	九〇	九一	九二	九三	九四	九五	九六	九七	九八	九九	一〇〇	一〇一	一〇二	一〇三	一〇四	一〇五	一〇六	一〇七	一〇八	一〇九	一一〇	一一一	一一二	一一三	一一四	一一五	一一六	一一七	一一八	一一九	一二〇	一二一	一二二	一二三	一二四	一二五	一二六	一二七	一二八	一二九	一三〇	一三一	一三二	一三三	一三四	一三五	一三六	一三七	一三八	一三九	一四〇	一四一	一四二	一四三	一四四	一四五	一四六	一四七	一四八	一四九	一五〇	一五一	一五二	一五三	一五四	一五五	一五六	一五七	一五八	一五九	一六〇	一六一	一六二	一六三	一六四	一六五	一六六	一六七	一六八	一六九	一七〇	一七一	一七二	一七三	一七四	一七五	一七六	一七七	一七八	一七九	一八〇	一八一	一八二	一八三	一八四	一八五	一八六	一八七	一八八	一八九	一九〇	一九一	一九二	一九三	一九四	一九五	一九六	一九七	一九八	一九九	二〇〇	二〇一	二〇二	二〇三	二〇四	二〇五	二〇六	二〇七	二〇八	二〇九	二一〇	二一一	二一二	二一三	二一四	二一五	二一六	二一七	二一八	二一九	二二〇	二二一	二二二	二二三	二二四	二二五	二二六	二二七	二二八	二二九	二三〇	二三一	二三二	二三三	二三四	二三五	二三六	二三七	二三八	二三九	二四〇	二四一	二四二	二四三	二四四	二四五	二四六	二四七	二四八	二四九	二五〇	二五一	二五二	二五三	二五四	二五五	二五六	二五七	二五八	二五九	二六〇	二六一	二六二	二六三	二六四	二六五	二六六	二六七	二六八	二六九	二七〇	二七一	二七二	二七三	二七四	二七五	二七六	二七七	二七八	二七九	二八〇	二八一	二八二	二八三	二八四	二八五	二八六	二八七	二八八	二八九	二九〇	二九一	二九二	二九三	二九四	二九五	二九六	二九七	二九八	二九九	三〇〇	三〇一	三〇二	三〇三	三〇四	三〇五	三〇六	三〇七	三〇八	三〇九	三一〇	三一	三一三	三一四	三一五	三一六	三一七	三一八	三一九	三二〇	三二一	三二二	三二三	三二四	三二五	三二六	三二七	三二八	三二九	三三〇	三三一	三三二	三三三	三三四	三三五	三三六	三三七	三三八	三三九	三四〇	三四一	三四二	三四三	三四四	三四五	三四六	三四七	三四八	三四九	三五〇	三五一	三五二	三五三	三五四	三五五	三五六	三五七	三五八	三五九	三六〇	三六一	三六二	三六三	三六四	三六五	三六六	三六七	三六八	三六九	三七〇	三七一	三七二	三七三	三七四	三七五	三七六	三七七	三七八	三七九	三八〇	三八一	三八二	三八三	三八四	三八五	三八六	三八七	三八八	三八九	三九〇	三九一	三九二	三九三	三九四	三九五	三九六	三九七	三九八	三九九	四〇〇	四〇一	四〇二	四〇三	四〇四	四〇五	四〇六	四〇七	四〇八	四〇九	四一〇	四一一	四一二	四一三	四一四	四一五	四一六	四一七	四一八	四一九	四二〇	四二一	四二二	四二三	四二四	四二五	四二六	四二七	四二八	四二九	四三〇	四三一	四三二	四三三	四三四	四三五	四三六	四三七	四三八	四三九	四四〇	四四一	四四二	四四三	四四四	四四五	四四六	四四七	四四八	四四九	四五〇	四五	四五三	四五四	四五五	四五六	四五七	四五八	四五九	四六〇	四六一	四六二	四六三	四六四	四六五	四六六	四六七	四六八	四六九	四七〇	四七一	四七二	四七三	四七四	四七五	四七六	四七七	四七八	四七九	四八〇	四八一	四八二	四八三	四八四	四八五	四八六	四八七	四八八	四八九	四九〇	四九一	四九二	四九三	四九四	四九五	四九六	四九七	四九八	四九九	五〇〇	五〇一	五〇二	五〇三	五〇四	五〇五	五〇六	五〇七	五〇八	五〇九	五一〇	五一	五一三	五一四	五一五	五一六	五一七	五一八	五一九	五二〇	五二一	五二二	五二三	五二四	五二五	五二六	五二七	五二八	五二九	五三〇	五三一	五三二	五三三	五三四	五三五	五三六	五三七	五三八	五三九	五四〇	五四一	五四二	五四三	五四四	五四五	五四六	五四七	五四八	五四九	五五〇	五五一	五五二	五五三	五五四	五五五	五五六	五五七	五五八	五五九	五六〇	五六一	五六二	五六三	五六四	五六五	五六六	五六七	五六八	五六九	五七〇	五七一	五七二	五七三	五七四	五七五	五七六	五七七	五七八	五七九	五八〇	五八一	五八二	五八三	五八四	五八五	五八六	五八七	五八八	五八九	五九〇	五九一	五九二	五九三	五九四	五九五	五九六	五九七	五九八	五九九	六〇〇	六〇一	六〇二	六〇三	六〇四	六〇五	六〇六	六〇七	六〇八	六〇九	六一〇	六一	六一三	六一四	六一五	六一六	六一七	六一八	六一九	六二〇	六二一	六二二	六二三	六二四	六二五	六二六	六二七	六二八	六二九	六三〇	六三一	六三二	六三三	六三四	六三五	六三六	六三七	六三八	六三九	六四〇	六四一	六四二	六四三	六四四	六四五	六四六	六四七	六四八	六四九	六五〇	六五一	六五二	六五三	六五四	六五五	六五六	六五七	六五八	六五九	六六〇	六六一	六六二	六六三	六六四	六六五	六六六	六六七	六六八	六六九	六七〇	六七一	六七二	六七三	六七四	六七五	六七六	六七七	六七八	六七九	七八〇	七八一	七八二	七八三	七八四	七八五	七八六	七八七	七八八	七八九	七九〇	七九一	七九二	七九三	七九四	七九五	七九六	七九七	七九八	七九九	八〇〇	八〇一	八〇二	八〇三	八〇四	八〇五	八〇六	八〇七	八〇八	八〇九	八一〇	八一	八一三	八一四	八一五	八一六	八一七	八一八	八一九	八二〇	八二一	八二二	八二三	八二四	八二五	八二六	八二七	八二八	八二九	八三〇	八三一	八三二	八三三	八三四	八三五	八三六	八三七	八三八	八三九	八四〇	八四一	八四二	八四三	八四四	八四五	八四六	八四七	八四八	八四九	八五〇	八五一	八五二	八五三	八五四	八五五	八五六	八五七	八五八	八五九	八六〇	八六一	八六二	八六三	八六四	八六五	八六六	八六七	八六八	八六九	八七〇	八七一	八七二	八七三	八七四	八七五	八七六	八七七	八七八	八七九	八八〇	八八一	八八二	八八三	八八四	八八五	八八六	八八七	八八八	八八九	八九〇	八九一	八九二	八九三	八九四	八九五	八九六	八九七	八九八	八九九	九〇〇	九〇一	九〇二	九〇三	九〇四	九〇五	九〇六	九〇七	九〇八	九〇九	九一〇	九一一	九一二	九一三	九一四	九一五	九一六	九一七	九一八	九一九	九二〇	九二一	九二二	九二三	九二四	九二五	九二六	九二七	九二八	九二九	九三〇	九三一	九三二	九三三	九三四	九三五	九三六	九三七	九三八	九三九	九四〇	九四一	九四二	九四三	九四四	九四五	九四六	九四七	九四八	九四九	九五〇	九五	九五三	九五四	九五五	九五六	九五七	九五八	九五九	九六〇	九六一	九六二	九六三	九六四	九六五	九六六	九六七	九六八	九六九	九七〇	九七一	九七二	九七三	九七四	九七五	九七六	九七七	九七八	九七九	九八〇	九八一	九八二	九八三	九八四	九八五	九八六	九八七	九八八	九八九	九九〇	九九一	九九二	九九三	九九四	九九五	九九六	九九七	九九八	九九九	一〇〇〇
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This document is a list of 138 smaller merchant ships (a few hundred tons to a few thousand) registered at Chuuk (Eastern Office) during 1944-45 with a number of the ships being crossed out, and a note indicating what happened to it, such as bombed February 17, 1944 (Figure 7.3). A number of the ships (80) have not been crossed out and they were translated into English by the Americans in 1945, and this list was attached to the ‘Captured Japanese document’. These were ships that in 1945 (after the war) were still operable. From the translations, I attempted to match the names of these ships, noted as being bombed on a certain day, with the known shipwrecks in Chuuk Lagoon, and I have found that none match.⁴ Research implemented to date has been unable to explain this.

Figure 7.3: A page from the Eastern Branch Office 1944-1945 document illustrating some of 138 vessels crossed out (58 in total) and suffering some type of damage (Source, NARA, San Francisco).

The Eastern Branch Office was the designation for the Chuuk military office that administered the Eastern Micronesian region including Pohnpei, Kosrae and the Marshall Islands from November 1943. The 58 ships that have been crossed out on this list could have been sunk or destroyed anywhere in this region. However, ‘there is no evidence whatsoever that several Japanese merchant vessels were sunk off Pohnpei during the war. The anchorage here [in Pohnpei] is not particularly

⁴ Japanese Nationals, Twomey Kaori and Mohri Yachiyo and Joshua Suka, Chuukese seal maker on Tonoas during the war and ‘self-taught’ in Japanese provided the translations.

good and there is certainly no oral tradition of the sinking of ships in any number off Pohnpei. Some of the ships could have been sunk in the Marshalls perhaps, but I suspect that most would have been lost in Chuuk.’ (Hezel, F. 2004 pers.comm.) It is most likely that there are some further shipwrecks awaiting discovery in Chuuk Lagoon, which I do not address in this study as I wanted to concentrate on known sites, where evidence of uses, impacts and values could be analyzed.

Loss of Muraki Maru

The supposition that ships in addition to those contained in Appendix 4 are located in Chuuk Lagoon is supported by the finding of this document (IJN 1945b). It refers to the 15-ton vessel called *Muraki Maru* sunk near Fanan Island (on the southern edge of the Chuuk Lagoon barrier reef) in March 1945. This vessel was towing two lighters to Fanan Island to pick up coconut trunks when a bomb from a U.S. heavy bomber hit the water about 15 metres behind the stern, killing three men and sinking the ship and the lighters. This vessel does not appear in any other documents. Bailey documented that he considered that all the major shipwrecks are known (Bailey, Dan 2004 pers.comm.), although he has documented ‘a number of small craft were claimed as sunk’ (Bailey 2000: 247), a statement verified by the U.S.SBS (1947:14).

Table 7.1 was compiled from this research, being an analysis of Appendix 4 and including *Muraki Maru*. As previously mentioned, this list does not include any of the 58 ships found in the *East Branch Office 1944-45* document which requires further research. A total of 48 vessels have been identified as sunk in Chuuk Lagoon, and Figure 7.4 records the various types of ships which have been classified as to their function at the time of loss.

<i>Site Name</i>	<i>Number</i>	<i>Location</i>	<i>Ship type during war</i>	<i>Ship size (gross tonnage)</i>
<i>Aikoku Maru</i>	1	East of Tonoas	Armed Merchant Cruiser	10438
<i>Amagisan Maru</i>	2	South West of Uman	Transport	7620
<i>CH 29</i>	3	Possibly near north pass	No. 28 class submarine chaser	420
<i>CHA 46</i>	4	East of Weno	No. 1 class auxiliary submarine chaser	130
<i>CHA 66</i>	5	South of Weno	No. 1 class auxiliary submarine chaser	130
<i>Ei-sen No. 761</i>	6	West of Tonoas	Tug	300
<i>Fujikawa Maru</i>	7	South of Etten	Transport	6938
<i>Fujisan Maru</i>	8	South East of Weno	Tanker	9524
<i>Fumitzuki</i>	9	North of Udot	Destroyer, Mutsuki class	1590
<i>Futagami</i>	10	West of Tonoas	Ocean tug	625

<i>Gosei Maru</i>	11	North East of Uman	Transport	1931
<i>Hanakawa Maru</i>	12	East of Tol	Transport	4739
<i>Heian Maru</i>	13	West of Tonoas	Submarine Tender	11614
<i>Hino Maru No. 2</i>	14	West of Uman	Transport	998
<i>Hoki Maru</i>	15	East of Tonoas	Transport	7112
<i>Hokuyo Maru</i>	16	East of Tonoas	Transport	4217
<i>Hoyo Maru</i>	17	West of Tonoas	Tanker	8691
<i>I-169</i>	18	West of Tonoas	Submarine B (1) type	1785
<i>Katsurigisan Maru</i>	19	North East of Weno	Transport	2427
<i>Kensho Maru</i>	20	West of Tonoas	Transport	4862
<i>Kikukawa Maru</i>	21	East of Tonoas	Transport	3833
<i>Kiyosumi Maru</i>	22	West of Tonoas	Armed Merchant Cruiser	8614
<i>Kotohira Maru</i>	23	Broken up?	Picket boat	30?
<i>Minsei</i>	24	North of Weno	Minelayer	378
<i>Momokawa Maru</i>	25	East of Tonoas	Transport	3829
<i>Muraki Maru</i>	26	North of Fanan	Tug and two lighters	15
<i>Nagano Maru</i>	27	East of Tonoas	Transport	3824
<i>Nippo Maru</i>	28	East of Tonoas	Transport	3764
<i>Oite</i>	29	North of Weno	Destroyer, Kamikaze Class	1523
<i>Ojima</i>	30	East of Tonoas	Tug	812
<i>Reiyo Maru</i>	31	East of Tonoas	Transport	5446
<i>Rio de Janeiro Maru</i>	32	East of Uman	Submarine Tender	9626
<i>San Francisco Maru</i>	33	East of Tonoas	Transport	5831
<i>Sapporo Maru</i>	34	East of Fefan	Provision/store ship	361
<i>Seiko Maru</i>	35	East of Tonoas	Transport	5385
<i>Shinkoku Maru</i>	36	North West of Param	Tanker	10020
<i>Shotan Maru</i>	37	East of Tonoas	Transport	2829
<i>Susuki</i>	38	West of Tonoas	Patrol Boat No. 34	935
<i>Tachi Maru</i>	39	North of Fefan	Transport	1891
<i>Taiho Maru</i>	40	South of Fefan	Transport	2827
<i>Taijun Maru</i>	41	Not known	Transport	1278
<i>Unkai Maru No. 6</i>	42	North of Uman	Transport	3220
Unknown A	43	West of Uman	Lighter/water transport	350?
Unknown B	44	West of Uman	Picket boat/Submarine chaser	250?
Unknown C	45	West of Uman	Transport/Inter-Island Supply	90
<i>Yamagiri Maru</i>	46	North of Fefan	Transport	6438
<i>Yamakisan Maru (Sankisan Maru)</i>	47	West of Uman	Transport	4776
<i>Yubae Maru</i>	48	West of Uman	Transport	3217

Table 7.1: A list of shipwrecks located inside Chuuk Lagoon from historical sources.

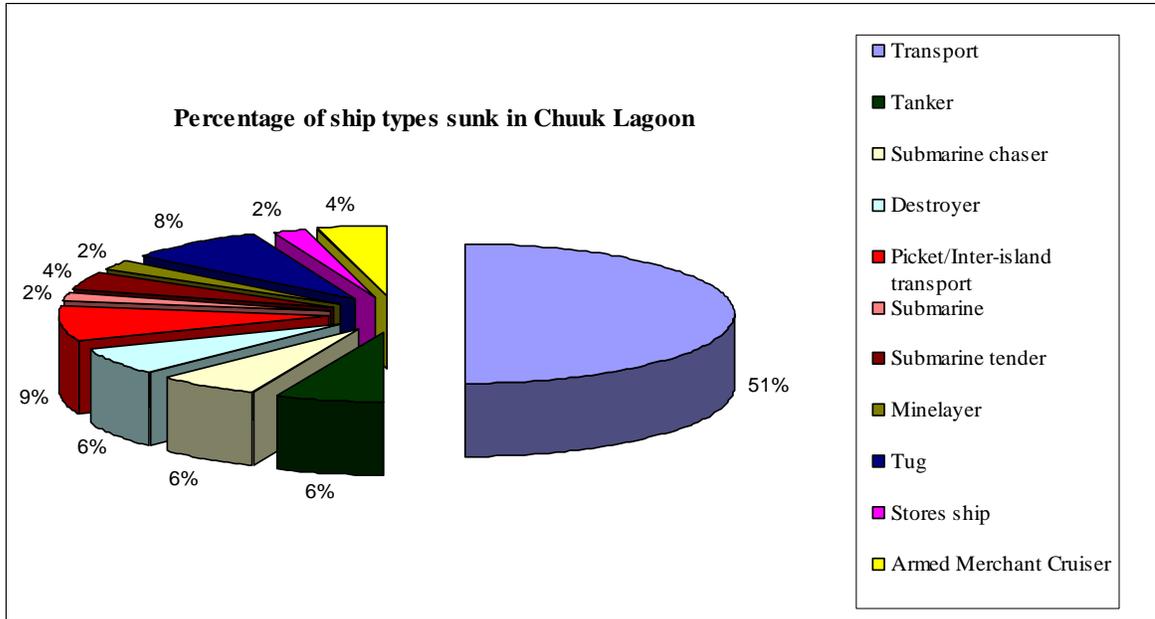


Figure 7.4: Ship types (as per function during the war) sunk in Chuuk Lagoon from historical records.



Figure 7.5: Kiyosumi Maru, c.1937, one of the transport vessels sunk in Chuuk (Source, National Maritime Museum, Greenwich, P 19655).

Aircraft destroyed at Chuuk

The *Reduction of Truk* (U.S.SBS 1947: 5-11) is currently the most useful source of primary information about aircraft lost during World War II and based at Chuuk. The document provides

five tables on the number of aircraft based there, and in transit, prior to 17 February 1944, and at the end of the war. They were prepared from information supplied by Rear Admiral Sumikawa Michio Commander, 22nd Air Flotilla until January 1944 when he was appointed Naval Chief of Staff to the Commander, Fourth Fleet based at Chuuk, and other informants who were also based in Chuuk during this time.

Code names were given to all Japanese aircraft by the Director of Intelligence at the Headquarters of the Allied Forces in the South West Pacific, owing to the difficulty in identifying types of aircraft according to the Japanese system of nomenclature. Male names were given to Japanese army and navy single and twin engine fighters and navy reconnaissance seaplanes. Female names were given to army and navy reconnaissance aircraft, bombers, dive bombers, torpedo bombers, transport aircraft and navy sea-planes (Francillon 1979: 566-570). The *Zero* was the Japanese code name given to its most lethal single engine fighter as it was accepted by the Japanese Navy in 1940, the Japanese calendar year of 2600, and taking the abbreviation '00' or *Zero* (Horikoshi et al. 1992).⁵ The Allied code name for the *Zero* was the *Zeke* (Figure 7.6).⁶

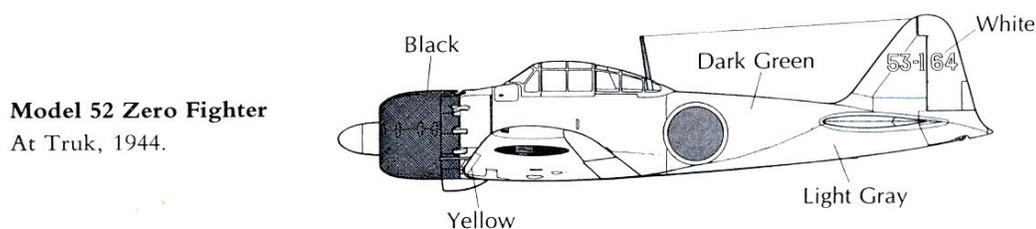


Figure 7.6: An example of a Zero, A6M5 (using the 5th designed airframe and the 2nd power plant) or Zeke, based at Chuuk in 1944 (Hata et al. 1989: 162)

In February 1944, Chuuk's air strength was said to be 143, ranging from *Zeke* fighters, bombers and reconnaissance seaplanes (U.S.N 1952d: 108a-108b). The U.S.SBS (1947: 8-9) documented 297 aircraft present at Chuuk at this time, including 200 parked wing tip to wing tip on Etten and 'awaiting ferry pilots [to Rabaul, for example] or repair'. During the February 1944 attack of Chuuk, 255 were destroyed on the ground and 34 in the air, with eight remaining serviceable. After

⁵ Horikoshi Jiro was the Mitsubishi engineer who created the *Zero*. The Japanese military used a few different names and numbers to designate Japanese aircraft type. One, called the short designation, gave the *Zero* for instance that was involved in the Pearl Harbor attack as an A6M2 ('A' for carrier based fighter; '6' for the 6th carrier fighter type accepted; 'M' for Mitsubishi; '2' for the number of the airframe design) (Baker 1991: 5-7). Toward the end of the war, five airframe models of the *Zero* had been produced—the A6M5 and a limited production of an A6M6. A total of 10,449 *Zeros* were manufactured.

⁶ For consistency, I have used the U.S. codes for all Japanese aircraft in this study.

the April-May attack, U.S. estimates on Japanese losses were 93 (U.S.SBS 1947: 15), Japanese estimates were 45 (U.S.SBS 1947: 9).

U.S. B-24 bombings of Chuuk were carried out from the 15 March to 28 April 1944 and again from the 9 May 1944 to 14 July 1945 (Bailey 2000: 173, 249-250). Experimental bombings from B-29 aircraft were carried out from 2 October 1944 to 2 August 1945 (Bailey 2000: 252). During this time American estimates on Japanese aircraft losses exceeded 150, although towards the end of the war details about losses were scarce (U.S.SBS 1947: 15).

An estimate on the number of U.S. losses can also be found, four during the first raids on 17-18 February 1944, and 22 on the subsequent attack in April-May 1944 (U.S.SBS 1947: 13-14). This figure corresponds with the database maintained by the U.S. Navy's Historical Centre. There were nine American B-24 losses and no B-29 losses (Bailey: 2000:173). The U.S. Navy database does not include the B-24s, as it only relates to navy aircraft and the B-24s were operated by the U.S. Army Air Force.

The U.S.SBS (1947: 13-14) also provides an estimate of Japanese losses from American pilots and this number could be as high as 454. A British aircraft carrier attack on the 14 and 15 June 1945 resulted in at least two British aircraft losses (Bailey 2000: 253) and could be as high as four (U.S.SBS 1947:15). The other possible source of aircraft losses were from Australia but no aircraft losses were reported (Bailey 2000: 98).

In trying to reconcile the total figures for Japanese aircraft losses, it would seem to be in the range of 352 (Japanese estimate) although this figure does not account for losses after 1 May 1944, which could total at least another 37 aircraft (providing a total of 389), to a total of 454 (U.S. estimate). The *Reduction of Truk* (USSBS 1947:16) documents that 'during the entire campaign more than 416 aircraft were destroyed'. No distinction is made between Japanese or American or British aircraft. Table 7.2 was constructed from various archival sources from which aircraft losses were interpreted to be about 453 on the ground and airborne, and which could remain in Chuuk today. Many of the air losses may be over the lagoon or islands, and therefore the remains could be expected to be located in the lagoon waters or on the islands. Some of the aircraft losses may also be located outside of the lagoon. The exact number of Japanese, American and British losses inside the lagoon is uncertain.

Type of Aircraft (using American code)	No. of Japanese losses (on ground)	No. of Japanese losses (in the air)	No. of American losses	No. of British losses
Rufe	?	c. 6		
Pete	c. 4	c. 3		
Zeke	c. 200	c. 100		
Kate	c. 20	c. 20		
Irving	c. 20	c. 2		
Betty	c. 6	c. 1		
Judy	c. 6	c. 1		
Jake	c. 4	?		
Seaplane (Emily)	c. 14	c. 1		
Myrt	?	c. 2		
Mavis	?	?		
Jill	?	c. 2		
Avenger			8	
Dauntless			3	
Hellcat			7	
Helldiver			6	
Kingfisher			2	
B 24			9	
Spitfire				1-4
Total	c. 274	c. 138	37	1-4

Table 7.2: The number of Japanese, U.S. and British aircraft losses at Chuuk from historical sources.

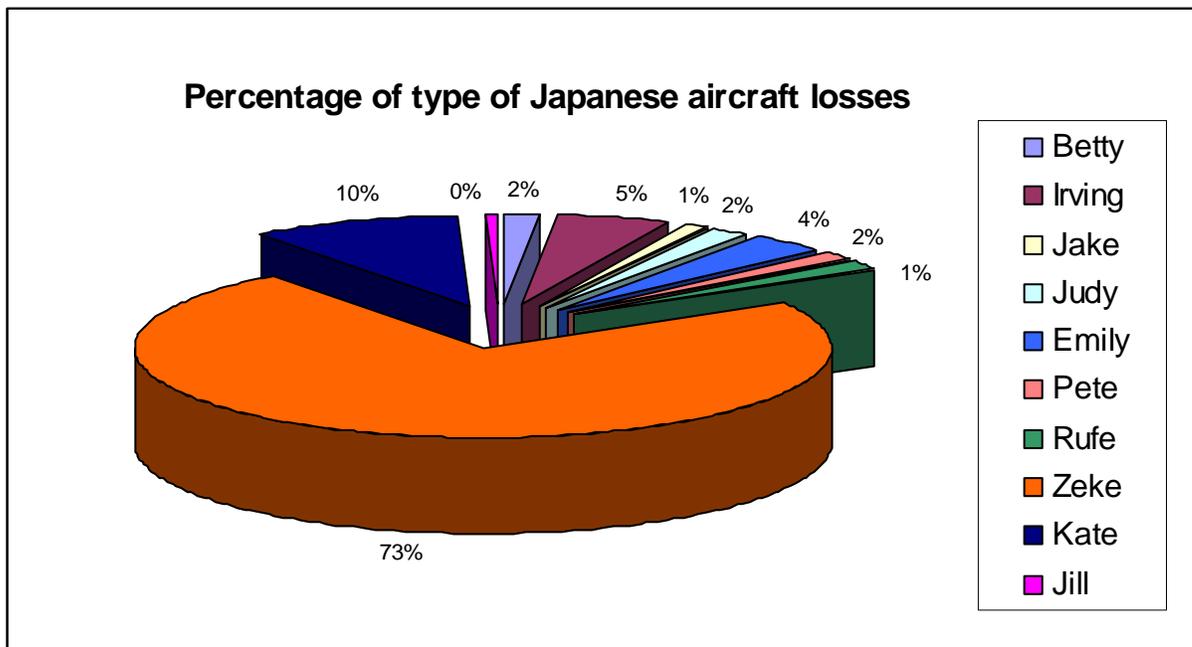


Figure 7.7: Percentage of types of Japanese aircraft losses

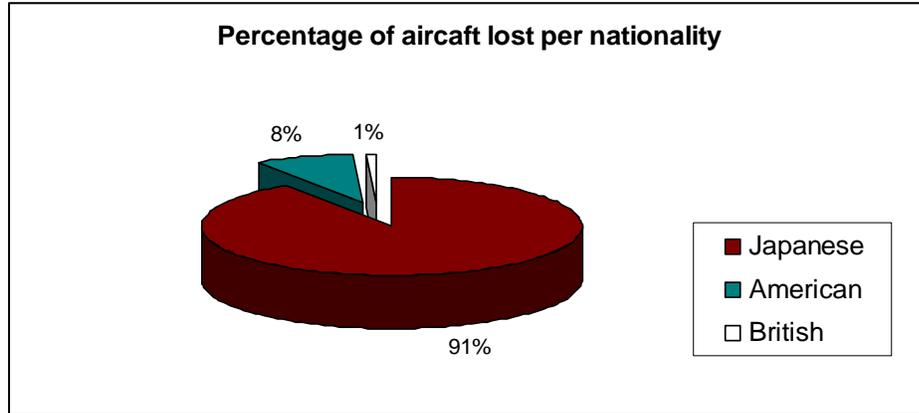


Figure 7.8: Percentage of aircraft lost per nationality

In providing a list of aircraft wrecks recorded to be located in Chuuk Lagoon, secondary sources provided all of the information, comprising Bailey (2000: 481-494), who provides good descriptive and location information on seven aircraft wrecks; Hezel and Graham (1997: 8) who identify three aircraft wrecks; King and Parker (1984: 475-481) who identify two aircraft wrecks; and Denfeld (1981) who identifies four aircraft wrecks. Table 7.3 was constructed after analyzing this information.

Type	USA code	No. of engines	Wingspan (metres)	Location
Mitsubishi A6M 'Zero' fighter	Zeke	One	11	Western end of Etten
Mitsubishi A6M 'Zero' fighter	Zeke	One	11	Eastern end of Etten
Yokosuka D4Y Dive bomber#	Judy	One	11.5	Eastern end of Etten
Nakajima B6N2 Torpedo bomber	Jill	One	15	Eastern end of Etten
Mitsubishi G4M Bomber	Betty	Two	25	Eastern end of Etten
Kawanishi H8K Flying boat	Emily	Four	38	South of Tonoas
Nakajima B6N2 Torpedo bomber+	Jill	One	15	West of Weno
Nakajima B5N2 Torpedo bomber	Kate	One	16	West of Chuuk Airport Weno
Kawasaki Ki-61 Army type fighter#	Tony	One	11	East of Etten
Martin PBM-5 Mariner bomber*		Two	36	On Weno, western shoreline
Mitsubishi A6M 'Zero' fighter	Zeke	One	11	West of Weno
Nakajima C6N Reconnaissance+	Myrt	One	12.5	On Weno, near hospital
Mitsubishi A6M 'Zero' fighter	Zeke	One	11	On Anangenimon islet

Table 7.3: A list of aircraft wrecks in Chuuk Lagoon and on the islands from historical sources.

This would appear to be the same aircraft from two different historical sources, Bailey (2000: 484-486) identifies it as a *Judy*; Hezel and Graham (1997: 8) identify it as a *Tony*.

* Denfeld (1981:105) suggests that this aircraft is of postwar vintage and which I also discerned from oral history of a nearby property owner (Mailo, Anerit 2004 pers.comm.).

+ This would appear to be the same aircraft, Bailey (2000: 492-494) identifies it as a *Jill*; Graham (2004 pers.comm.) identifies it as a *Myrt*.

The *Kate* aircraft identified by Denfeld and Carucci was found during the extension of the Chuuk airport in 1979 and given its location in the path of the extension, was moved to another sea location (King and Parker 1984: 476) (Figure 7.9). Two types of aircraft identified in Table 7.3, the *Jill* and *Tony* could not be found in the information provided by Rear Admiral Sumikawa Michio (USSBS 1947). In addition, Denfeld (1981: 72) records that Chuuk had 16 *Myrt* aircraft in February 1944 and this contradicts the non-existence of *Myrts* documented by Rear Admiral Sumikawa. Not included in Table 7.3 are the aircraft known to be located in the hold of the vessel *Fujikawa Maru* as they have been included in the description of the cargo remains of that vessel. Also obtained were oral histories to the effect that another *Zeke* is located near Param Island (Graham, Clark 2002 pers.comm.), and two other aircraft are reportedly located in the lagoon (Koney, A. 2004 pers.comm.). This was not verified in either case. While the U.S. Navy's Historical Centre provides a list of 26 U.S. aircraft that were lost during the Chuuk battles, no historical sources were found as to their location in or outside of the lagoon.

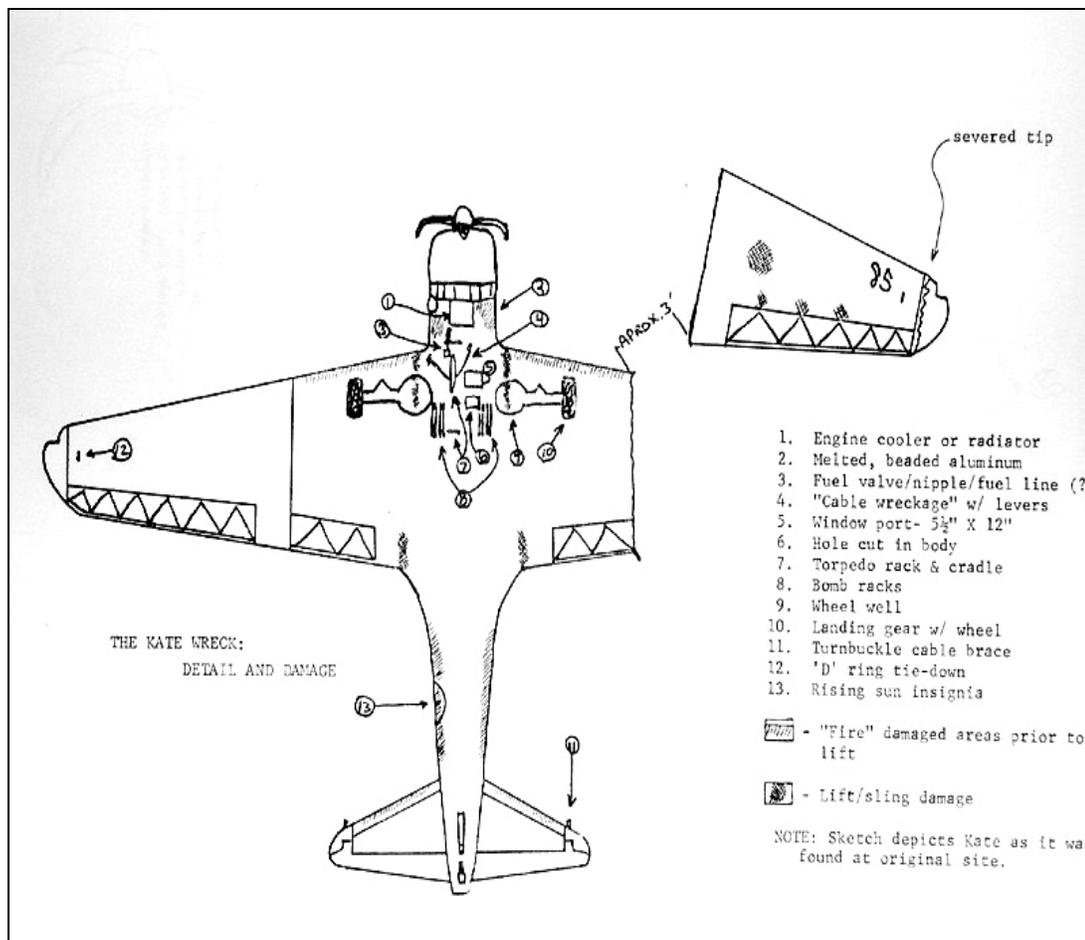


Figure 7.9: The *Kate* aircraft (upside down) before removal from the path of the Chuuk airport extensions in 1979 (King and Parker 1984: 479).

Conclusions

The research into various primary and secondary historical documents found, from of a total of 113 ships to have sunk and damaged in and around Chuuk Lagoon, 48 are located inside the lagoon.

There remains the potential for up to 453 aircraft losses to be found in and around Chuuk Lagoon, and from secondary historical sources, 11 have been identified in the lagoon. In the next chapter this information will be used to investigate some of these sites, to collect evidence on their identity, integrity and condition, and to confirm or dispute these records.

Chapter 8: Site identity, integrity and condition

Introduction

This study of the Chuuk Lagoon submerged WWII sites required surveys that examined contemporary uses, impacts and values of the sites. In doing this, the surveys needed to address a cross section of the submerged WWII sites and should not be restricted to intensive site or artefact surveys of just a few sites. As mentioned in Chapter 3, it was considered intensive archaeological surveys concentrating on the Japanese material culture would provide limited data on contemporary Chuukese values and uses. The surveys were only a part—albeit a crucial part in fulfilling a post-processual approach to UCHM. Other components included the ethnographic surveys, collection of oral histories, and analysis of the literature and questionnaires.

The submerged WWII sites are a significant part of the Chuukese World War II landscape. Some contain human remains and many contain remains of the equipment used during the war and bear the scars of the bombs that sank the vessels. In one sense they could be interpreted as ‘time capsules’, representing underwater museums of the war that have historic and archaeological value, and providing information about past societies. Other values, such as their value to present groups of people—Japanese pilgrims, war veterans and survivors, salvagers, fishers, tourist operators, diving tourists, and heritage managers—can provide contemporary connections with the sites and a range of different meanings. The site surveys were approached through the need to provide this contemporary perspective. An investigation and documentation of their tangible attributes, including site identity, integrity and condition, and their intangible attributes through the ethnographic surveys and oral histories was implemented to better understand the different site values and uses. The site surveys were also approached in a multi-disciplinary manner by including information on flora and fauna and the science associated with their deterioration and corrosion.

Other factors that influenced the nature of the surveys included the practicalities of diving in a deep remote locality, the requirement to dive within safe diving practices and the need for diving assistance and equipment. As mentioned in Chapter 3, I was fortunate to be working with Chuuk HPO at the time of the field work and could obtain the assistance of two former commercial dive guides, Arimichy Rudolph and Anerit Mailo. Their assistance and knowledge in locating and

surveying the sites was invaluable.¹

The equipment, diving and funding assistance required to implement this study did not come at once. However, it was possible to utilize these resources over the life of the study, allowing for the implementation of site surveys that could achieve the research aims. The Earthwatch-funded project which brought several volunteers to help on an expanded and more detailed assessment of the submerged WWII sites is also discussed in this chapter.

This chapter also contains details of some terrestrial World War II sites located on the island of Tonoas, presented here in order to place the submerged WWII sites in context with the terrestrial war landscape, and an association of these sites with Chuukese individuals and groups.

Survey requirements

One of the first steps in documenting the submerged World War sites, as it is with any type of heritage site work, is to implement an investigation into site identity. The list of the 48 shipwrecks and 11 aircraft obtained from the historical research needed to be supplemented with site information that would confirm or dispute their identification. The GPS and DGPS coordinates allowed for accurate site locations to be obtained, maps and databases to be compiled.² As a result, Table 8.1, Table 8.2 (shipwrecks) and Table 8.3 (aircraft) were produced.

As documented in Chapter 7, the field surveys related to submerged WWII sites located inside the lagoon only, given the very deep water outside the lagoon. The majority of the surveys inside the lagoon were also restricted to an area of high site concentration which coincided with the anchorages and airstrips as seen in Figure 5.4 (see Figure 8.1). Due to time, money and diving constraints, it was also not possible to survey all the sites in this area, resulting in the need to be selective about which sites to survey.³

Sites were selected to cover a range of parameters, including different size and site types, ships with different cargoes, locations with different environmental parameters (including water depth), sites

¹ Arimichy Rudolph had been diving the shipwrecks since 1979 and has completed over 5060 dives; Anerit Mailo has been diving the deeper sites since the 1990s has accumulated over 1700 dives.

² All coordinates used WGS (World Geographical System) 1984 datum

³ In addition to diving within the guidelines of James Cook University, the other limiting factor was that in 2001 when I began my research there was no recompression chamber in Chuuk and I erred on the cautious side. I limited my diving to two dives a day to a maximum first dive of 30metres. A good hyperbaric chamber was established in Chuuk in 2004.

that were popular for diving tourists and sites that were not, new sites, intact sites and those with much less integrity, and ships sunk on different dates and in a different manner.

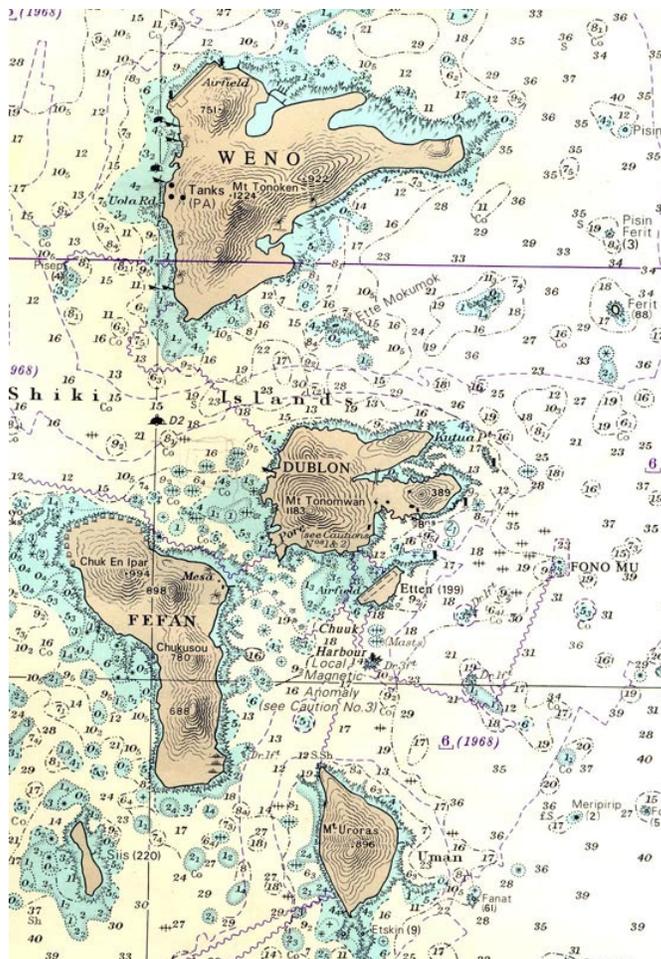


Figure 8.1: The area of highest concentration of shipwrecks centred on Dublon (Tonoas), the Headquarters for the Japanese in Chuuk Lagoon (Source, British Admiralty Chart # 982).

The initial surveys were carried out from October 2001 to February 2002 using divers equipped with tape measures, writing slates and underwater cameras to record site measurements and details, and a GPS to record site locations. The following site surveys have been divided into submerged shipwreck sites, and submerged aircraft sites being consistent with the pattern established in Chapter 7. A general discussion on both types of submerged remains follows the survey investigations.

Shipwreck sites investigated

Of the 20 inspected sites, nine were transport vessels (converted and armed merchant ships), two tugs, two oil tankers, two submarine tenders, one destroyer, one store-ship, one gunboat, one dock boat, and one war-debris accumulation. This was considered to be a fair cross section of the site types in the lagoon as well as representing other site selection criteria (see Figure 8.46). The information obtained during the surveys included site length measurements and noting of artefacts exhibiting manufacturing and owner details (to help confirm site identity), site sketching, comparison with the commercially developed underwater slates, site photography, areas of damage

from the war, contemporary damage from boat anchors, evidence of dynamite fishing, and impacts from divers. Time/depth limits in diving needed to be strictly adhered to so as to avoid any type of decompression illness (DCI), with the result that diving was spread over an extended period.

Site identification

One of the criticisms from Carrell (1991: 319-320) was that the identification of shipwrecks in Micronesia is problematic:

Sixty-six Japanese ships were lost in the [Palau] archipelago, second only to Truk's seventy-five. Sport diving on these sites has increased dramatically in the last 10 years. With it has also come the desire to accurately identify the individual wreck sites. Efforts in that regard have been made by Lindemann (1988) and Bailey (1986). The difficulties associated with ship identification and the haste with which they are often made have resulted in a number of identification errors.

While the author is primarily talking about the shipwrecks in Palau, the same could be said about the Chuuk Lagoon shipwrecks. Very few of the sites are like the *Heian Maru* that still has its name visible on the starboard bow (Figure 8.2). Only a few others such as the *Eisen No. 761* contain such material as a telegraph exhibiting Japanese text (Figure 8.3) or artefacts exhibiting a manufacturer's or ship owner's mark. An issue that needed to be clarified from the outset was if the ships in Chuuk Lagoon were all Japanese World War II ships. It was established in Chapter 7, that 48 Japanese military ships were sunk in Chuuk Lagoon, one U.S. submarine to have sunk 100 km south of the lagoon, and possibly a 19th century Spanish ship sunk off the south-west of Tonoas, but which needs verification (Craib 1997: 48). Carrell (1991: 285) documents all the 75 shipwrecks located in Chuuk Lagoon are of World War II origin, and it was anticipated any variation in relation to this would be revealed during the site surveys.

When researching the Japanese World War II ships, the only primary archival documentation containing any location information that could help with identification, was found in the records of the U.S. Joint Army-Navy Assessment Committee (JANAC 1947). JANAC information is derived only from interviews with Japanese military officers, with no field research. It was therefore considered to be limited in helping to identify sites but worthy of investigation. The secondary source by Bailey (2000) was considered to be the most beneficial given his extensive use of primary documentation, including JANAC, and extended to U.S. pilot action reports. He also gained information from Cousteau's 1969 work and his own site surveys, which included the occasional discovery of a ship's bell (which exhibits the ship's name). I compare information from these two sources with what was gained from my site surveys.



Figure 8.2: Heian Maru name on the bow (Photograph by Greg Adams, 2002).

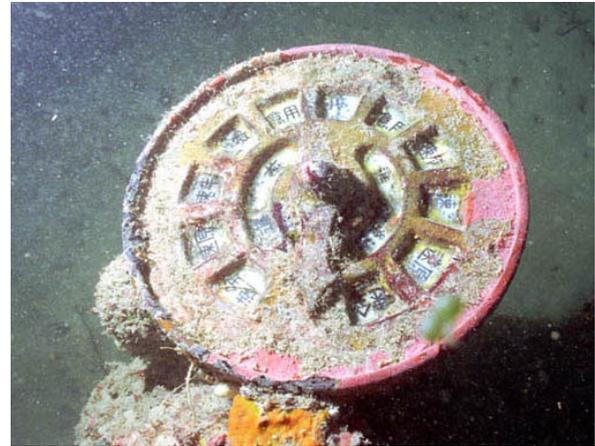


Figure 8.3: Telegraph with Japanese Kanji text in the Eisen No. 761 (Photograph by Greg Adams, 2002).

The *in situ* identification process required the length of each shipwreck site as measured during the site surveys to be compared with the ship's recorded length shown in *Lloyd's Register*.⁴ This was compared to the location information from JANAC⁵, Bailey (2000), and my survey data shown as 'Latitude GPS' and 'Longitude GPS' in Table 8.1. This process was applied to 17 of the 20 inspected sites. Geographical coordinates needed to be ascertained for the site locations provided in Bailey's maps, as no coordinate information is provided in his book. Information collected in the process of verifying identity is summarized in Table 8.1. Two sites, *Eisen No. 761* and *Futagami* were the only two sites that did not show any war damage and this is verified in JANAC, as the vessels sank after the war. The recorded lengths of the ships were compared with those measured during the site surveys to substantiate the identity of the sites. Consistencies were found in the descriptions of recorded war damage, and the damage observed.

Figure 8.4 illustrates site locations for only one area as an example of all the shipwreck sites mapped according to JANAC ('Identity janac 2.dbf' and shown in white labels), Bailey ('Identity bailey.dbf' and shown in yellow labels), and from my site surveys ('Identity.dbr'). While one of the locations obtained from JANAC is reasonably accurate, many of the points plotted from JANAC were consistently inaccurate, some even being located on land. It was therefore revealed that JANAC's information was not particularly useful in checking site location and identity. There are however consistent discrepancies between Bailey's location data compared to my survey

⁴ Entries in various dated Lloyd's Registers for the different vessels were inspected.

⁵ The coordinate datum used by JANAC is unknown but it would not have been WGS84, therefore some discrepancies are inevitable.

information, of between 500-700 meters in a south-west direction. This can be attributed to Bailey (2000: 267-269) only providing general site maps at a scale of about 1: 50,000 from which coordinates were taken. Bailey purposely did not include accurate site locations following a request from the dive shop proprietors (Bailey, Dan 2004 pers.comm.). These discrepancies are consistent with the other sites investigated, and suggest that the identification of the remaining sites is reliable.

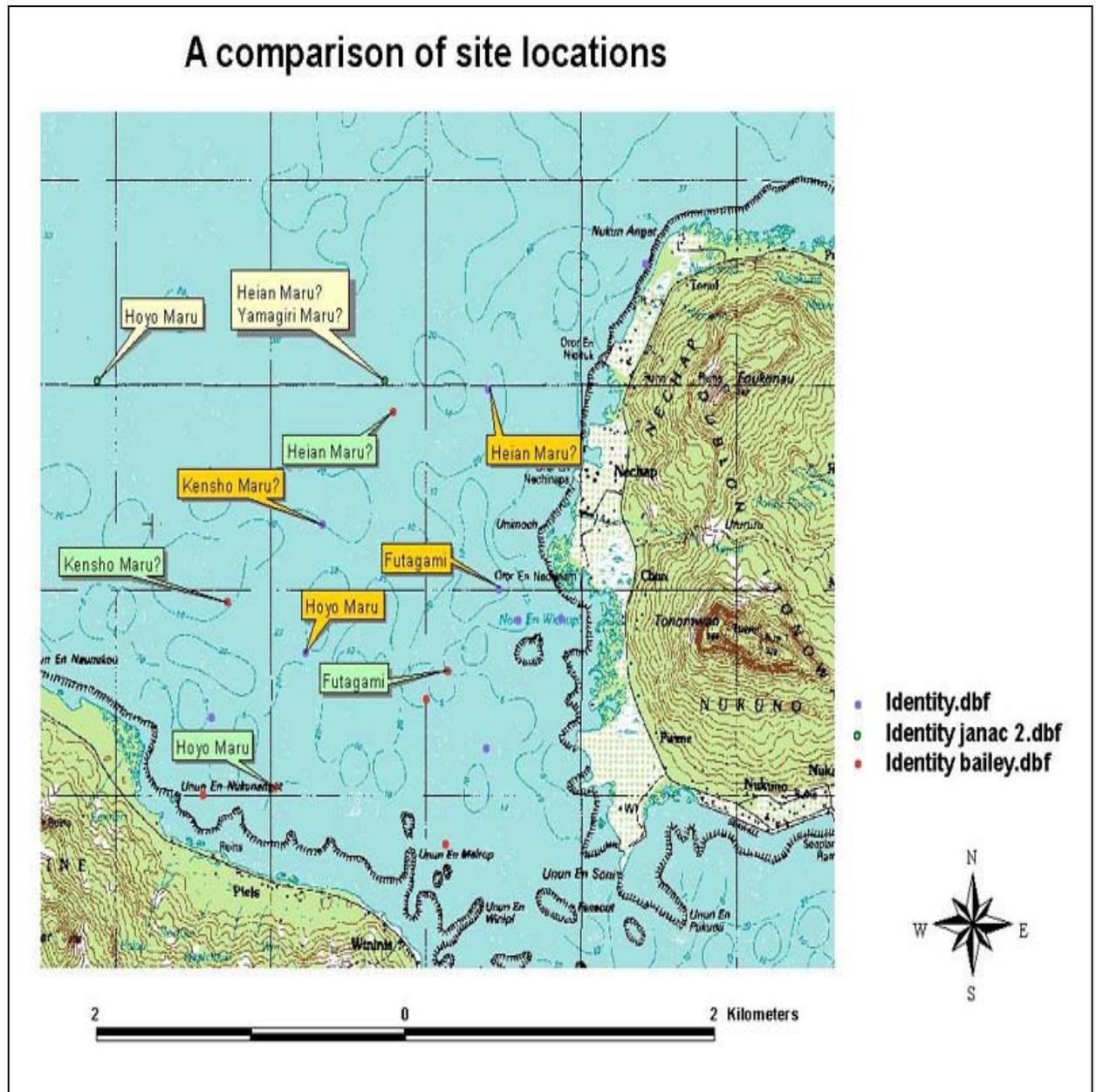


Figure 8.4: A comparison of some site locations used as part of the identification process.

<i>Site Name</i>	<i>Measured Length (metres)</i>	<i>Recorded Length (metres)</i>	<i>Location JANAC</i>	<i>Location Bailey</i>	<i>Latitude GPS</i>	<i>Longitude GPS</i>	<i>Nature and condition of site/vessel</i>
<i>Ei-sen No. 761</i>	34	34	Sunk post 1945	7.369217 151.85236	7.372800	151.860200	No apparent war damage
<i>Fujikawa Maru</i>	133	133	7.333333 151.88333	7.343708 151.88033	7.344600	151.885283	Damage consistent with reports
<i>Futagami</i>	40	39	Sunk post 1945	7.370447 151.85363	7.374083	151.856600	No apparent war damage
<i>Gosei Maru</i>	80	83	7.300000 151.83333	7.312725 151.88807	7.311250	151.887217	Damage consistent with reports
<i>Heian Maru</i>	160	156	7.383333 151.85000	7.381912 151.85048	7.382900	151.856000	Damage consistent with reports
<i>Hino Maru No. 2</i>	60	61	7.366667 151.75000	7.30215 151.86574	7.303950	151.870933	Damage consistent with reports
<i>Hoyo Maru</i>	146	144	7.383333 151.83333	7.365302 151.84357	7.371283	151.845383	Damage consistent with reports
<i>Kensho Maru</i>	116	117	7.300000 151.88333	7.373522 151.84080	7.376933	151.846333	Damage consistent with reports
<i>Nippo Maru*</i>	93	108	7.300000 151.88333	7.379155 151.91173	7.382750	151.910767	Damage consistent with reports
<i>Rio de Janeiro Maru</i>	138	141	7.333333 151.88333	7.30165 151.89724	7.304600	151.894967	Damage consistent with reports
<i>Sapporo Maru</i>	48	44	Not on list	7.365007 151.83937	7.368400	151.839883	Damage consistent with reports
<i>Shinkoku Maru</i>	154	152	7.333333 151.66667	7.395150 151.77264	7.400090	151.779120	Damage consistent with reports
<i>Susuki</i>	72	84	Not on list	7.36284 151.85352	7.372700	151.857750	Damage consistent with reports
<i>Unkai Maru No. 6</i>	104	101	7.416667 151.75000	7.324133 151.88154	7.316667	151.885967	Damage consistent with reports
<i>Yamagiri Maru</i>	137	134	7.383333 151.85000	7.38521 151.81963	7.383820	151.821860	Damage consistent with reports
<i>Yamakisan Maru</i>	95	113	7.416667 141.75000	7.287777 151.86281	7.295600	151.869217	Damage consistent with reports
<i>Yubae Maru</i>	90	93	7.300000 151.88333	7.30696 151.86004	7.307533	151.867133	Damage consistent with reports

Table 8.1: Sites investigated for identification comparison.

*Due to the depth, measurements derived from Differential Global Positioning System (DGPS) Coordinates (during side scan sonar survey) and not diver surveys.

Side Scan Sonar survey

Following a successful grant application, Jeremy Green (Western Australian Maritime Museum), implemented a side scan sonar survey of the submerged WWII sites in February 2002.⁶ The aim of the side scan sonar survey was to obtain accurate location and descriptive data that could be used to derive some site measurements to assist in the identification and mapping of the sites. The side scan sonar is an instrument where the sensor (fish) is placed in the water and connected to a recorder in a boat by an electronic cable. The fish is towed behind the boat at 10-20 metres off the seabed and mindful of the relief of the shipwreck. In brief, the fish emits electronic sound pulses in fan shape from both sides of the fish (perpendicular to the boat track) that are then reflected back from the seabed, rock, or shipwreck and is received and interpreted on board the boat through a VDU and captured onto a laptop computer. In conjunction with a DGPS, an accurate location for each site can be obtained and measurements made of the length, breadth and depth (from height of shadow) of each shipwreck. The side scan sonar has the benefit of being able to cover a large area in a relatively short time. However, the definition of the site can be greatly impaired by choppy sea conditions. If the sea is flat calm, the fish will be steady and the definition clear, but when rough, the movement of the fish greatly impairs the results. Over a period of three weeks a total of 34 shipwrecks were surveyed with the *Sea Scan* side scan sonar. The archaeological field assistants from Chuuk HPO guided the survey vessel over the various sites and provided oral verification as to their identity.

Because the surface of the sea was frequently rough it was not possible to survey all 48 shipwrecks contained in the historical database and many site definitions are poor, but a site length measurement was obtained and used in the site identification and descriptive processes. It also provided valuable additional data to that obtained in the diver surveys (see Figure 8.5 as an example of the data recorded by the side scan sonar). The DGPS and site length data has been incorporated into Table 8.2 and a discussion on site attributes follows the table.

⁶ While the side scan sonar is not a complex instrument, the experience and skill of the operator is an important consideration in achieving good and reliable results. The instrument is also relatively expensive and the fish and cable have the potential to get damaged if tangled around a submerged object, particularly a shipwreck.

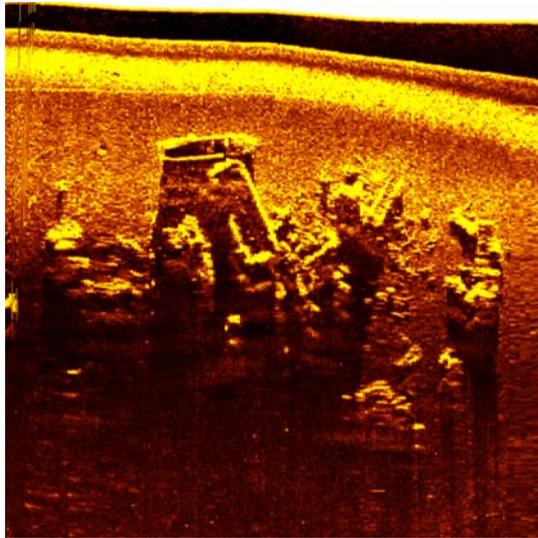


Figure 8.5: An example of the side scan sonar data of the unknown site 'D', No. 47. This site is a complex site containing four small landing craft (one can be seen toward the top-middle of the image) and other dumped war material. The line nearer the top of the image is a reflection of the seabed directly below the fish and this view is a fan-shaped scan of about 75 metres of the seabed and what is sitting proud of the seabed. The darker shapes coming off the objects (shadow) indicate the relief of the objects, which like other shapes in the image can be measured to provide dimensions of the sites.

This is a geo-referenced TIFF and in association with geo-referenced TIFFS for the other sites, they can be used to compile a mosaic of those parts of the lagoon (Source, Jeremy Green 2002).

Sapporo Maru

As part of the side scan sonar survey, a search for the *Sapporo Maru* was instigated given it had not been found and it came within my selection criteria for survey (Bailey 2000: 439-440). A search was implemented on 12 February 2002 of an area of about 1 square kilometre to the south-west of the *Kiyosumi Maru* and north of Fefan (see Figure 8.20 for location). Toward the end of the survey, a shipwreck site of unknown origin was found (Figure 8.6). It was highly likely that it was the *Sapporo Maru*. On the following day, a dive was carried out, and after an examination and measurements taken, it was confirmed as the *Sapporo Maru* (Green 2002: 119-130).

The vessel was a small ship, 44 m in length, 7.3 m in breadth, 361 tons, built in 1930 as a refrigerated fish carrier, and used by the Japanese Navy as a deep-sea fishing trawler (*Lloyd's Register of Shipping 1940-41*). It was reported to have sustained some damage to its engines during the American B-24 bombing of Chuuk on 5 April 1944 and appears to have sunk sometime between April and May of that year. The inspection on 13 February 2002 found a substantially intact vessel lying on its starboard side, which included forward and stern masts *in situ*, an intact bridge and deckhouse, refrigeration equipment in the vessel's holds, a similar deck layout to the published

drawings of the vessel in Bailey (2000: 440), and dimensions (length 48 m x breadth 7.4 m) which are a consistent set of measurements with the official records, allowing for variation in measurement accuracy and placement (Figure 8.7).

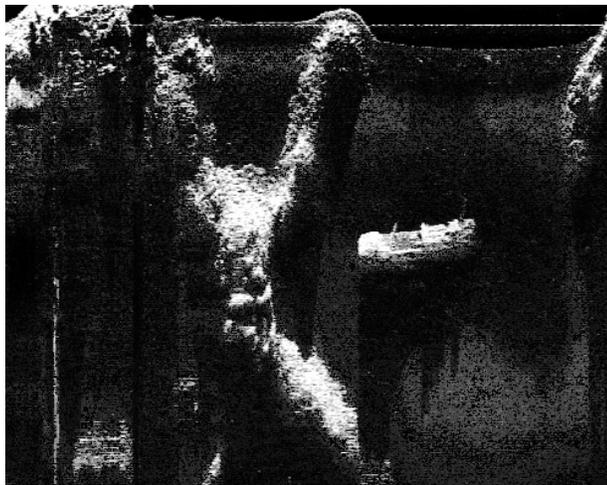


Figure 8.6: Sapporo Maru can be seen to the right of middle in this side scan sonar image. The vessel is sitting upright and intact with a slight list to starboard (right). The bow is to the left, forward and stern masts can be seen lying to starboard, and the start of the bridge is clearly evident about half way back along the vessel. The relief of the vessel has caused the seabed to the left of the vessel to be in shadow. Other seabed features (in white) are natural reef (Source, Jeremy Green 2002).

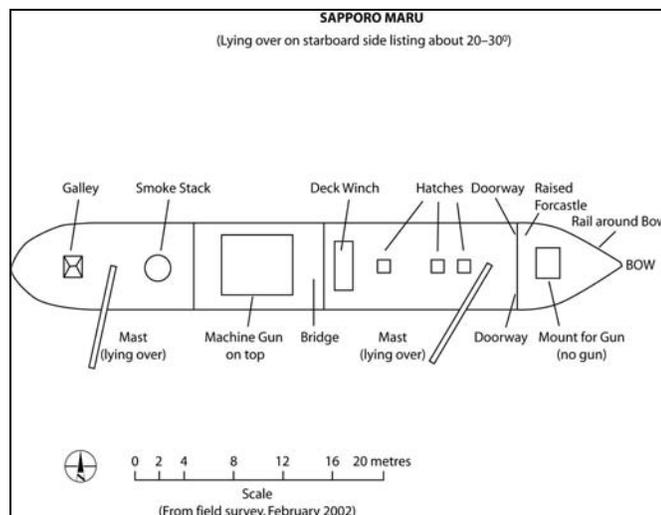


Figure 8.7: The layout of the Sapporo Maru from a field survey (Drawing by Judi Francis, 2002).

A further inspection of the site on 19 February with Ansito Walter (Governor of Chuuk), Dan Bailey and others located the ship's bell in its original position on the outside of the bridge, which was later recovered (independently of my survey) to reveal the name of the vessel *Sapporo Maru*

and its date of construction (Figures 8.8 and 8.9).⁷ A number of ship's fittings, including lanterns, weapons and stores, were found inside cabins that suggested the shipwreck had not been impacted by salvagers, fishers or divers. Further issues highlighting the value and management of the *Sapporo Maru* are discussed in Chapter 9.



Figure 8.8: The bridge of the Sapporo Maru (Photograph by Jeremy Green, 2002).



Figure 8.9: The Sapporo Maru bell. (Photograph courtesy Dan Bailey, 2004).

‘Unknown D’ (No. 47) site

In 2002, I was informed by Steve Graham, Manager of Truk Stop Hotel dive shop, of an area of war-time debris between Tonoas and Fefan (see Figure 8.20 for location). The site was surveyed by the side scan sonar and inspected by divers. It consists of four small landing craft up to 20 metres in length, vehicles, aircraft remains and gas bottles, which have the appearance of war material that has been dumped (see Figure 8.5).

Gunboat (‘Unknown E’, No. 48) site

In addition to the sites discovered through the side scan sonar surveys, I was shown another shipwreck site by Kalani David, an employee of the Chuuk Department of Transport and land owner of Tonoas. The site is located in 5 metres of water, about 80 metres off the north-west coast of Tonoas adjacent to where the Japanese 41st Naval Guard Force was stationed during the war (see Figure 8.20 for location). The site consists of a 19 metre long steel boat in poor condition (Figures 8.10 and 8.11).

⁷ Mohri Yachiyo translated the text on the bell, being: ‘Sapporo Maru’ and ‘Shouwa 5 nenn 11 gatsu’ (November in the 5th year of Shouwa period—November, 1930).



Figure 8.10: Exhausts from the two radial engines located just aft of the gun turrets. (Scale 50 cm divisions) (Photograph by Bill Jeffery, 2004).



Figure 8.11: The starboard engine and gearing mechanism. (Scale 30 cm divisions) (Photograph by Bill Jeffery, 2006).

The vessel contains two radial ‘aircraft engines’, 1.2 metres in diameter as its propulsion system operated by a single, well protected driver in the mid-bow section, and what appears to be two ‘gun turrets’ (without guns) mounted above and behind the driver. Aft of the engines, the vessel remains extend for a further 9 metres in a collapsed state. Research so far suggests the boat was a ‘Hayabusa’ boat, described as an ‘anti-submarine, anti-PT “high-speed boat” that was driven by two 800 hp aircraft engines with one 40 mm and one or two machine guns in armored turrets’, about 18 metres in length and 20 tons displacement, specifications which match this site (U.S.N 1945b: 10).

‘Unknown F’ (No. 49) site

During the side scan sonar survey in 2002, what appears to be a new shipwreck was located, shown as ‘Unknown F’, and number 49 in Table 8.2. The sonar image of the object is distinct from the background (seabed) (see Figure 8.12). It is in the shape of a ship about 70 metres in length and possibly includes a mast, and is located in more than 60 metres of water near Fono Mu Island to the east of Tonoas (see Figure 8.21 for location).

Lindemann (1990: 6-7) illustrates his book with a number of photographs of ships on-fire in 1944, some of which are not identified and are in the vicinity of this site. Another possible identity for this shipwreck is the *Akitsuishima*, shown to be on fire in the vicinity of the island of *Fono Mu* but reported to be ‘one of the few ships which did not sink then’ (Lindemann 1990: 6). This was corroborated by JANAC (1947: 15). Lindemann (1990: 5) has recorded that after the finding of *Oite* in 1986, all the major ships sunk in Chuuk have been found and Bailey is of the same view. The

question then arises as to whether this is a new site or an unusual natural formation. It has been documented that a number of smaller ships were sunk (Bailey 2000: 247, U.S.SBS 1947: 18) and it may also be one of the ships found in the 'Eastern Branch Office' document (IJN: 1945a). About 600 metres north-west of this new site is *Aikoku Maru*, another deep site which was not surveyed, but known to have suffered a terrible explosion when hit by an American bomb, killing over 600 Japanese military personnel and the U.S. aviators. The explosion caused the vessel to break in two and the forward part of the ship is now missing. As it was about 50 metres in length, this also may explain the origin of this unknown site.

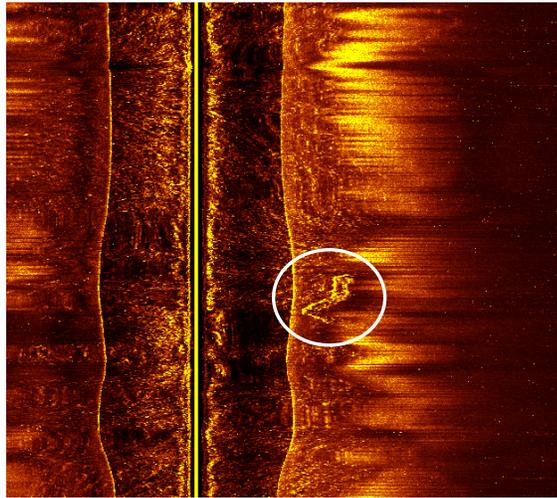


Figure 8.12: The anomaly identified as a possible shipwreck (Source, Jeremy Green, 2002).

Two dives were made to this site by two divers associated with the Truk Stop Hotel in April 2002. One saw wreckage (a large spar and part of a vehicle) but given the depth and limits in diving time (10minutes), it could not be fully investigated (Pinson, Jim 2002 pers.comm.). It is possible that if the diver was not directly above the wreckage, he may have seen only a small part of the site. It is worth pursuing an investigation of this site, possibly with one of the tourist chartered live-aboard boats in Chuuk, which have echo sounders and can verify the nature of the site, before any further dives are made. In February 2007, a team led by Dan Bailey investigated the site using a magnetometer based on the information I provided but failed to locate it.

Converted bonito fishing vessel ('Unknown G', No. 50)

In 2006 as part of the Earthwatch funded project in Chuuk, I was informed by Kerat Rikim, Fisheries Officer with the Department of Marine Resources, and resident of Tonoas, of a shipwreck in the vicinity of the *Heian Maru*, to the north-west of Tonoas and about 400 metres offshore (see

Figure 8.20 for location).⁸ A magnetic survey was implemented on 20 November 2006, and many large and small anomalies were found. The British Admiralty Chart No. 982 had warned of ‘local magnetic anomalies’ (see Figure 8.1) in ‘Chuuk Harbour’, south of the area being searched. While implementing the magnetic survey, a number of people on Tonoas began shouting that the shipwreck was further out. Eventually three young men swam out and located the site. The shipwreck is sitting upright and has maintained much of its integrity. It is 35 metres in length with an intact bridge, engine room and deck machinery, while the outboard circumferential deck sponsons, prominent bowsprit, rounded and raked bow provides evidence of its original use as a bonito fishing vessel (Figure 8.13).

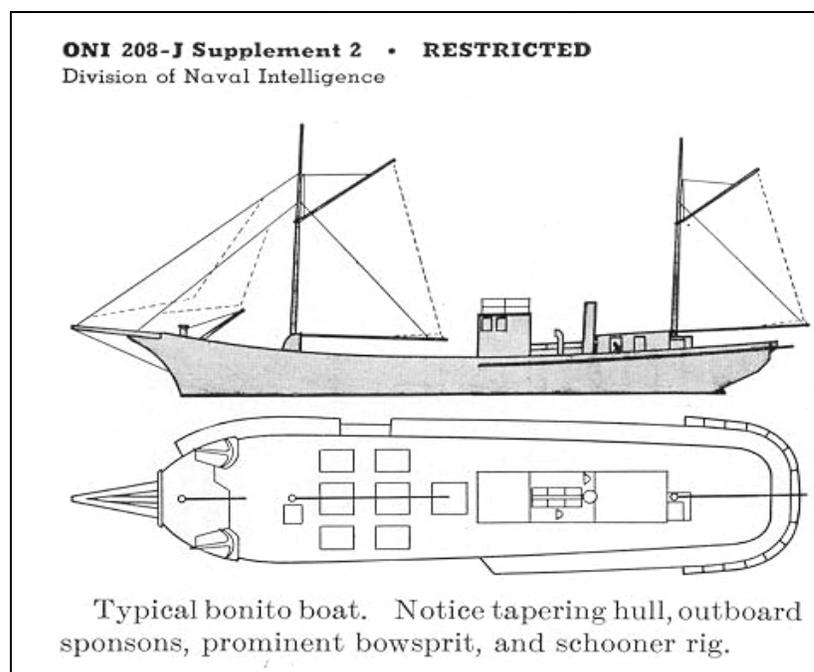


Figure 8.13: A similarly arranged but smaller vessel than the ‘Unknown G’, Site No. 50 (U.S.N 1945b: 141).

A large circular platform or ‘bandstand’ placed directly above the anchor windlass in the bow of the vessel is evidence of a gun being fitted during the war, as it is the same mounting design used on the *San Francisco Maru* and seen on other Japanese small vessels (Figures 8.14 and 8.15).

⁸ Kerat Rikim was told of the shipwreck by Randy Aisek who works as a dive guide for the Blue Lagoon dive shop. Kerat also informed me about a ‘submarine’ on the outside reef edge which I will follow-up during future work. There are no historical records about a second Japanese submarine sinking in or near the lagoon, but it could be a U.S. submarine!



Figure 8.14: The bow showing the bowsprit, deck sponsons on the port side and the circular structure on 'Unknown G' site (Photograph by Bill Jeffery, 2006).



Figure 8.15: The circular structure and gun on the San Francisco Maru (Photograph by John Riley, 1995).

The vessel does not appear to have suffered or been sunk from war damage, although it is difficult to assess any hull damage given the prolific marine life covering the structure. Two other shipwrecks located nearby, the tugs *Futagami* and *Eisen No. 761* were sunk after the war, possibly indicating this area was used as a post-war dumping ground for vessels that had deteriorated or could not be put to further use. This general location was also the area where the two large battleships, *Yamato* and *Musashi* anchored when in Chuuk, suggesting the ship was associated with them. This shipwreck site does not appear to have been dived, as it contains fittings such as portholes and a lantern (well known as souvenirs from other sites) still in their original positions. The ship has many soft and hard corals and a very large and fragile *Tubastrea micantha* on the port side, further evidence that not many anchors from dive boats have been dropped onto the site (Figure 8.16).



Figure 8.16: The Tubastrea micantha coral (Photograph by Bill Jeffery, 2006).

During the survey of the vessel, anthropologist Dr Rosita Henry (Head of Department of Anthropology, Archaeology and Sociology, James Cook University) and Doropio Marar (Chuuk HPO) conducted an interview with the young men who showed us the site, being Chefeno Rotelis and Rf Fiti. The young men found the site while spear fishing in 2001 and regularly use it for fishing. Chefeno's father, Roten Rotelis was also interviewed but he was unsure of the identity of the vessel but referred to it as a dock boat used by the Japanese during the war. They have a sense of ownership of the site—for fishing—and while they were happy for us to dive and survey the site, they did not want it to become regularly visited by diving tourists.

This shipwreck is an important find, given its possible association with the profitable Chuuk tuna fleet established and operated by Okinawans and Chuukese prior to the war (Figure 8.17). It may have been owned and operated before the war by Chuukese, and if so, would be the only one of all the submerged WWII sites found to date in the lagoon that has such a connection.



Figure 8.17: Memorial to Okinawan Tamashiro Shoei who established the tuna fishing industry in Chuuk. (Photograph by Bill Jeffery, 2001).

A consolidated list of shipwrecks in Chuuk Lagoon

As a result of the side scan sonar survey, oral histories and further dive inspections, a final list of shipwreck sites located in Chuuk Lagoon was produced (Table 8.2). In addition to the 48 sites identified in Chapter 7, four additional sites were located, being the four unknown sites D, E, F and G.

<i>Site Name</i>	<i>Site No.</i>	<i>Recorded site length (metres)</i>	<i>Measured site length (metres)</i>	<i>Gross Tonnage</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Located by Side Scan Sonar</i>
<i>Aikoku Maru</i>	1	152	Broken in two (106)	10438	7.373067	151.912267	Yes
<i>Amagisan Maru</i>	2	137	133	7620	7.291000	151.864167	Yes
<i>CHA 29*</i>	3	49		420	7.519697	151.844253	No
<i>CHA 46*</i>	4	26		130	7.43558	151.927195	No
<i>CHA 66*</i>	5	26		130	7.402915	151.856207	No
<i>Ei-sen No. 761</i>	6	34	34	300	7.372800	151.860200	Yes
<i>Fujikawa Maru</i>	7	133	133	6938	7.344600	151.885283	Yes
<i>Fujisan Maru*</i>	8	150		9524	7.421680	151.894620	No
<i>Fumitzuki</i>	9	97	95-100	1590	7.414650	151.739100	Yes
<i>Futagami</i>	10	40	40	625	7.374083	151.856600	Yes
<i>Gosei Maru</i>	11	83	80	1931	7.311250	151.887217	Yes
<i>Hanakawa Maru*</i>	12	112		4739	7.334560	151.644080	No
<i>Heian Maru</i>	13	156	160	11614	7.382900	151.856000	Yes
<i>Hino Maru No. 2</i>	14	61	60	998	7.303950	151.870933	Yes
<i>Hoki Maru</i>	15	137	108	7112	7.353700	151.913550	Yes
<i>Hokuyo Maru</i>	16	109	101	4217	7.361000	151.907017	Yes
<i>Hoyo Maru</i>	17	144	146	8691	7.371283	151.845383	Yes
<i>I-169</i>	18	103	99	1785	7.389517	151.849050	Yes
<i>Katsurigisan Maru*</i>	19	87		2427	7.491500	151.954220	No
<i>Kensho Maru</i>	20	117	116	4862	7.376933	151.846333	Yes
<i>Kikukawa Maru</i>	21	108	88	3833	7.357367	151.912400	Yes
<i>Kiyosumi Maru</i>	22	138	143	8614	7.373850	151.843850	Yes
<i>Kotohira Maru*</i>	23			30?	7.41697	151.835703	No
<i>Minsei*</i>	24	41		378	7.552342	151.85731	No
<i>Momokawa Maru</i>	25	108	55-74	3829	7.372417	151.907500	Yes
<i>Muraki Maru*</i>	26			15	7.128777	151.955077	No
<i>Nagano Maru</i>	27	105	151	3824	7.365833	151.914167	Yes
<i>Nippo Maru</i>	28	108	93	3764	7.382750	151.910767	Yes
<i>Oite*</i>	29	100		1523	7.612580	151.832720	No
<i>Ojima</i>	30	49	Debris field up to 200m	812	7.358450	151.912917	Yes
<i>Reiyo Maru</i>	31	122	106	5446	7.369367	151.916767	Yes
<i>Rio de Janeiro Maru</i>	32	141	138	9626	7.304600	151.894967	Yes
<i>San Francisco Maru</i>	33	117	132	5831	7.363883	151.909450	Yes
<i>Sapporo Maru</i>	34	44	49	361	7.368400	151.839883	Yes
<i>Seiko Maru</i>	35	120	126	5385	7.361283	151.904283	Yes
<i>Shinkoku Maru</i>	36	152	154	10020	7.400090	151.779120	Yes
<i>Shotan Maru</i>	37	87	68	2829	7.362483	151.918017	Yes
<i>Susuki</i>	38	84	72	935	7.372700	151.857750	Yes

<i>Tachi Maru*</i>	39	82		1891	7.377822	151.807067	No
<i>Taiho Maru*</i>	40	98		2827	7.303102	151.85273	No
<i>Taijun Maru*</i>	41			1278	7.440005	151.832053	No
<i>Unkai Maru No. 6</i>	42	101	104	3220	7.316667	151.885967	Yes
<i>Unknown A*</i>	43	39		350?	7.300170	151.869880	No
<i>Unknown B*</i>	44			250?	7.306920	151.870900	No
<i>Unknown C*</i>	45	30		90	7.301850	151.86991	No
<i>Unknown D</i>	46			?	7.367050	151.855850	Yes
<i>Unknown E</i>	47		19	20?	7.388460	151.865120	No
<i>Unknown F</i>	48		67	?	7.371317	151.917883	Yes
<i>Unknown G</i>	49		35	c.150	7.380523	151.858356	No
<i>Yamagiri Maru</i>	50	134	137	6438	7.383820	151.821860	Yes
<i>Yamakisan Maru</i>	51	113	95	4776	7.295600	151.869217	Yes
<i>Yubae Maru</i>	52	93	90	3217	7.307533	151.867133	Yes

Table 8.2: A list of shipwrecks in Chuuk Lagoon, many surveyed with the side scan sonar. Sites marked * were not located through diver or side scan sonar surveys but have been given an approximate coordinate for the purpose of identifying them in Figures 8.18-8.23.

Analysis of the known lengths of the ships and their locations from Bailey (2000), with information interpreted through the side scan sonar and diver surveys helped to confirm site identifications. In some cases the interpretation of the measured lengths from the side scan sonar data was poor, and the identification of these ships was assisted through the knowledge of the Chuuk HPO archaeological field assistants, Arimichy Rudolph and Anerit Mailo. It is also considered that all the ships are of Japanese World War II origin and not from the American post war period given the concurrence of the survey data and the historical data. Information pertaining to the integrity, uses and condition of the sites is provided in later sections of this chapter.⁹

The coordinates in Table 8.2 were downloaded into the ‘Moen’ raster map in Arcview, producing Figures 8.18-8.22 & 8.24, being the location of 43 submerged shipwreck sites. Figures for the other submerged shipwreck sites (*CHA 29, Fumitzuki, Hanakawa Maru, Katsuragisan Maru, Muraki Maru, Oite, Shinkoku Maru, Tachi Maru, and Unknown B*) were not produced given the other raster maps were not field checked and considered to be inaccurate.

⁹ Chuuk Lagoon also contains some ships that were deliberately scuttled in more recent times, such as the *Pugh* just south of the Blue Lagoon dive shop, a Micronesian trader in an area between Tonoas and Fefan and scuttled in 2004, and those exposed along the Weno shoreline. These were considered to be outside the scope of this study.

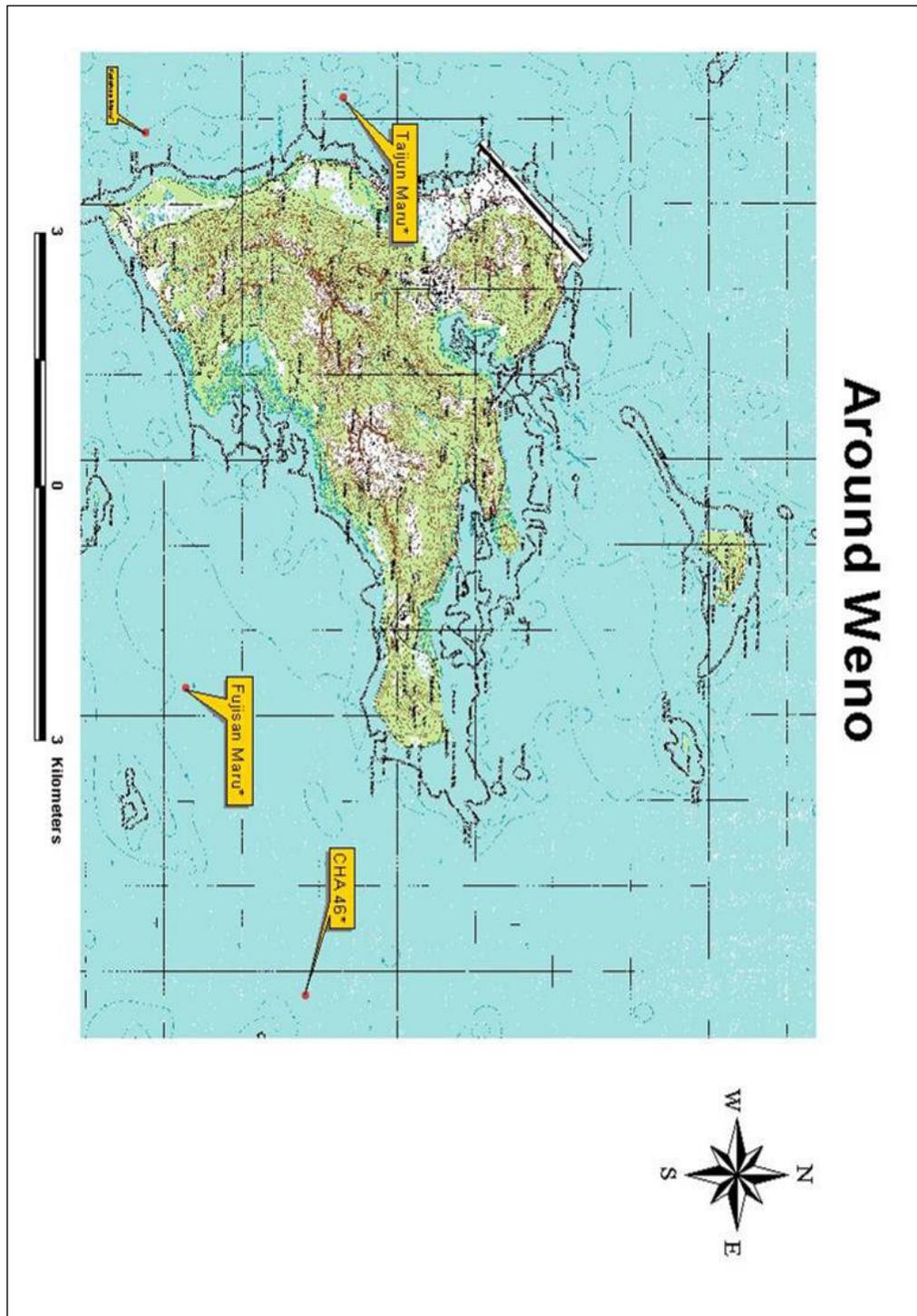


Figure 8.18: Shipwrecks in the vicinity of Weno.

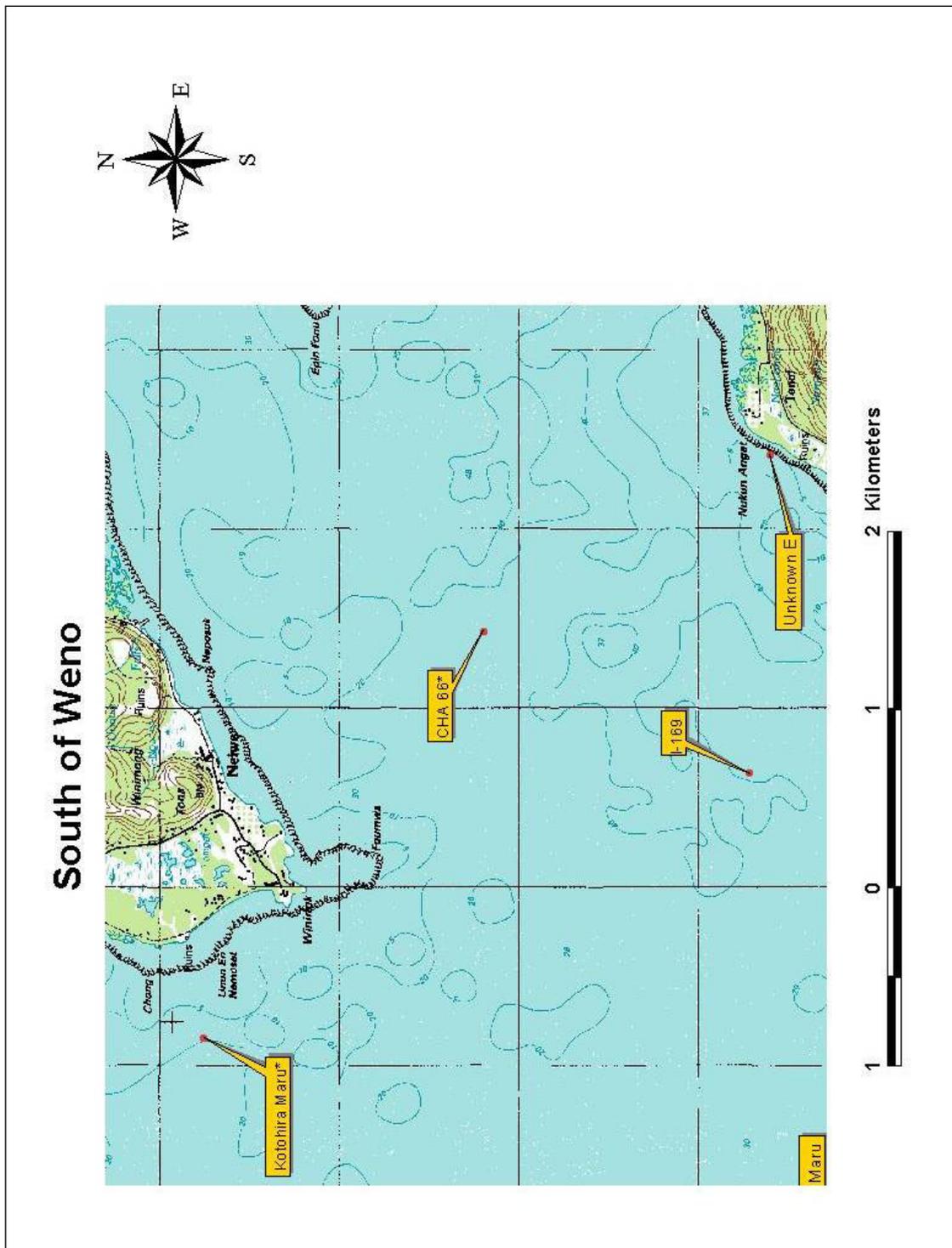


Figure 8.19: Shipwrecks between Weno and Tonoas

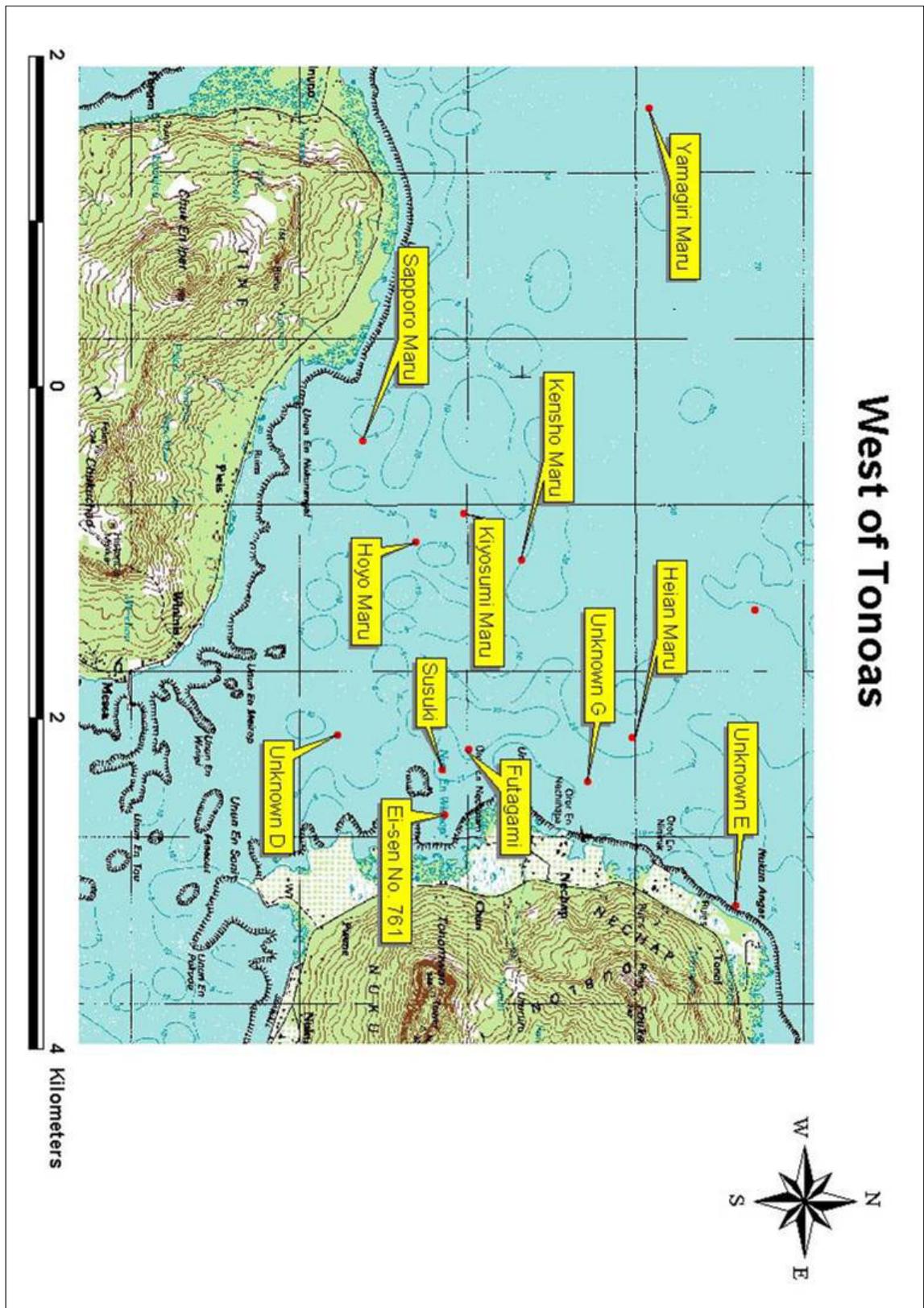


Figure 8.20: Shipwrecks west of Tonoas, north-east of Fefan

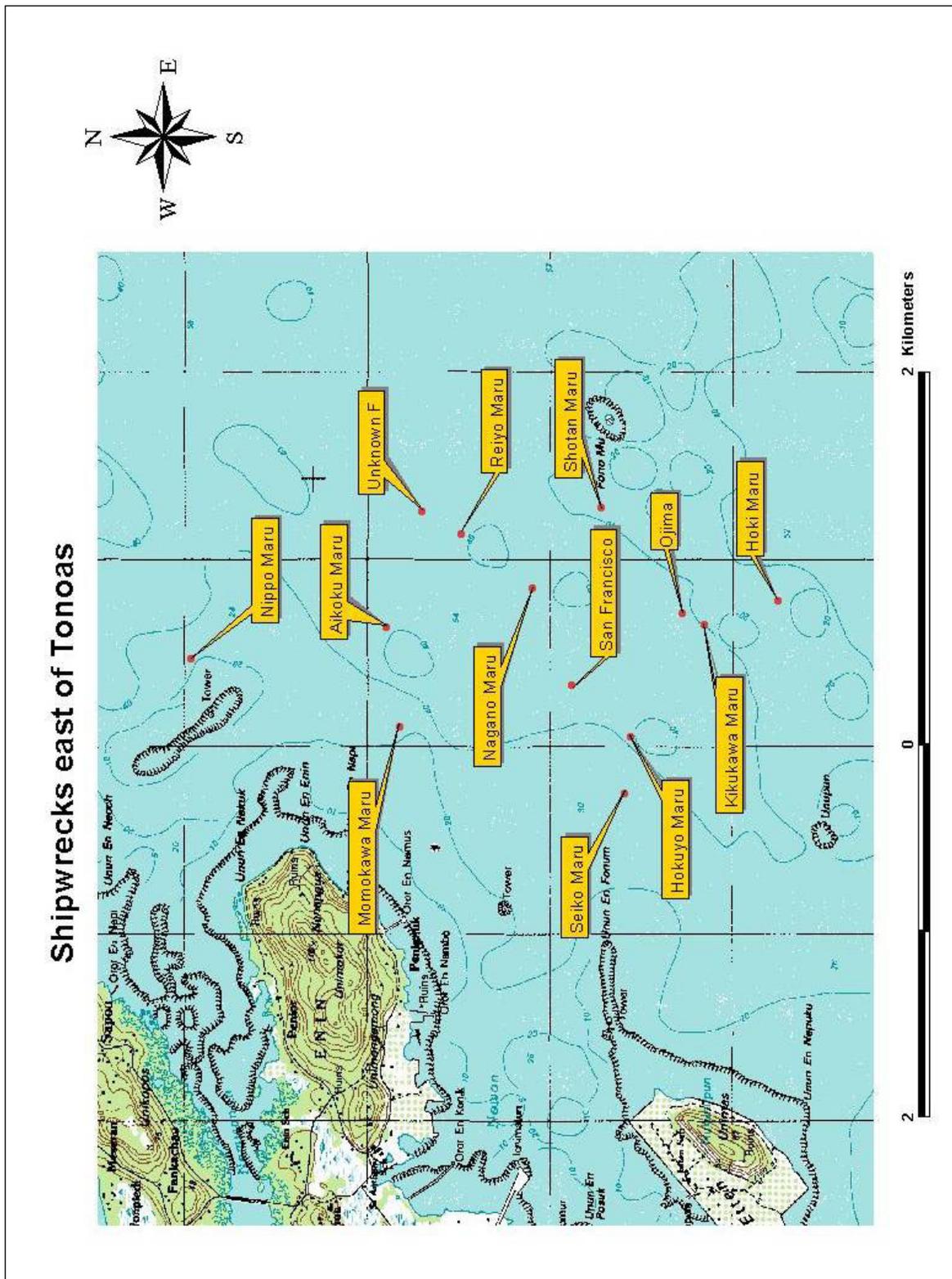


Figure 8.21: Shipwrecks east of Tonoas

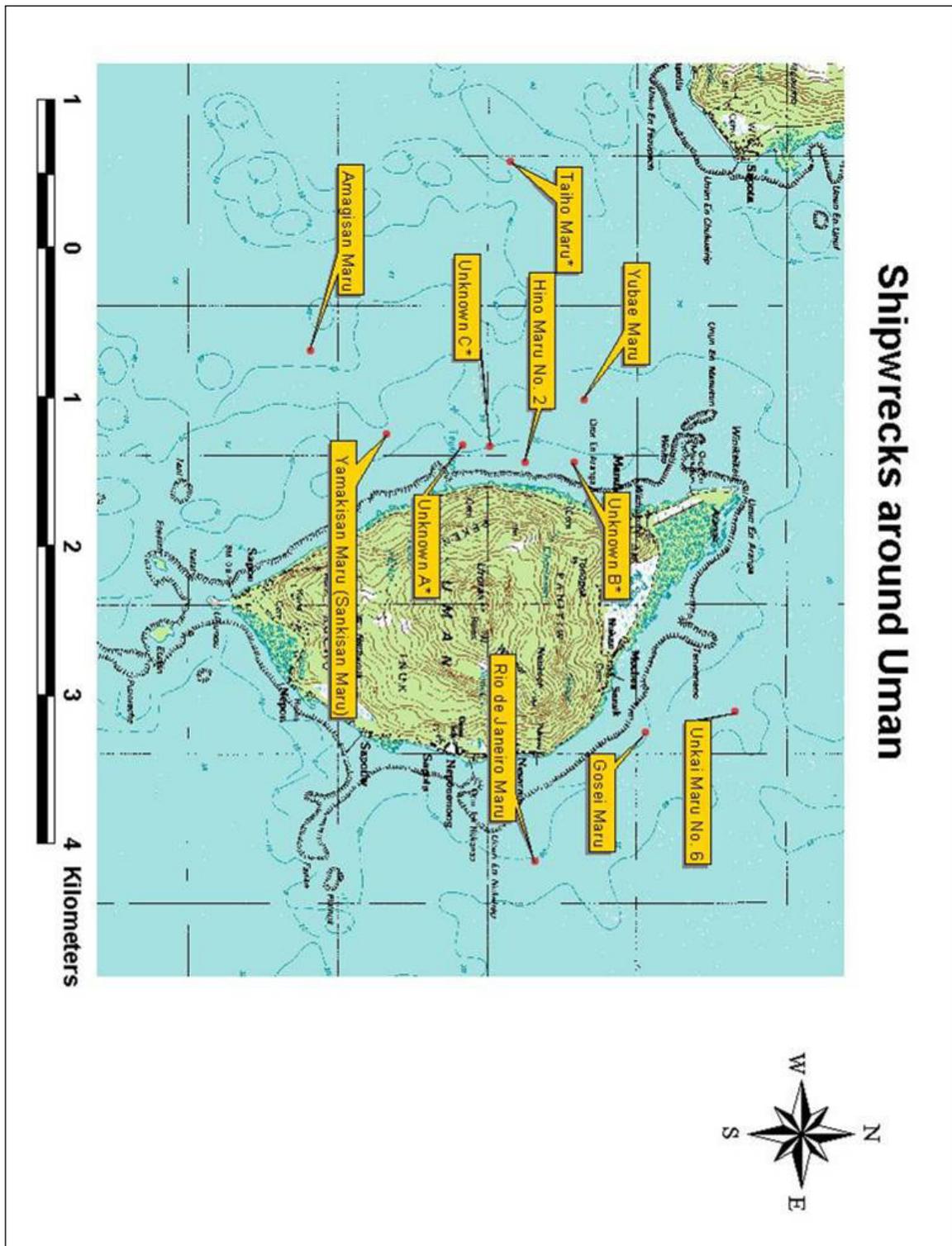


Figure 8.22: Shipwrecks around Uman.

Fujikawa Maru

As part of the process of ascertaining and describing the different site values, a detailed description of one of the shipwrecks is provided. *Fujikawa Maru* is the most popular shipwreck to dive in Chuuk Lagoon as it contains the range of attributes that attract divers to Chuuk. Many divers also report a ‘sense of place’, or appreciation of the human impact of the war, after diving this site—from the war damage, integrity and type of material remains. It also exhibits some of the natural and human impacts as seen in disturbances to many features. It is therefore a good example or window, through which to view past and present values of many of the submerged WWII sites in the lagoon.

The *Fujikawa Maru* was a 6,938 ton ship and is still essentially intact, sitting upright in 33 metres of clear, 28° C temperature water, which provides a home to a wide range of colourful flora and fauna (Figure 8.23). It is located about 1 km south of Etten (Figure 8.24).



Figure 8.23: A view of the bow and bow gun of Fujikawa Maru (Photograph by Greg Adams, 2002).

For many years after the war, two of its masts protruded above sea level, noted by Bailey in 1971 (2000: 289) and Earle in 1975, who used the forward mast to moor their dive boat (Earle and Giddings 1976: 582). The forward mast collapsed early in the 1990s and the aft one, still there in 1997 has now collapsed (Hezel and Graham 1997: 31) (Figure 8.25).



The first impression when diving the *Fujikawa Maru* is that it looks substantially intact and untouched by the war, divers, storms or dynamite fishers. The clear water makes it possible to see large sections of the vessel in a single view, with its bow pointing east. The vessel sits upright with a c.15° list to starboard and the central superstructure, masts and kingposts (for loading and unloading cargo) rise off the deck, some to within 6 m of the surface of the sea (Figures 8.26).

Figure 8.25: One of the masts of Fujikawa Maru (Photograph by Terry Drew, 1977).

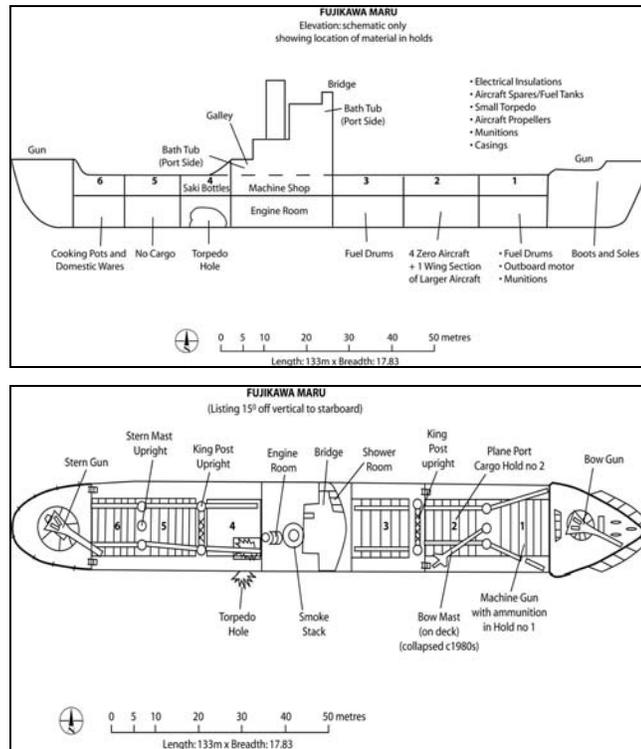


Figure 8.26: Plan and elevation of Fujikawa Maru compiled from field surveys. Masts and king posts are not shown in the section drawing (Drawn by Anerit Mailo and Judi Francis).

At the bow, located in 12 metres of water, a small telegraph (for signalling the engine room the speed required) is still in position on the deck. Moving back in a westerly direction, the anchor winch and bow gun can be found intact, with ammunition still in boxes next to it (Figure 8.27). The six inch breech loading gun is of British origin, manufactured by ‘Elswick Ordnance Company’ in 1899 and the manufacturer’s plaque is continually cleaned by tourist divers.¹⁰ On the port side of the bow a section of deck and two of the deck bitts show what could be signs of dynamite fishing—bare metal, red / brown corrosion and a complete lack of corals and sponges—as compared to the surrounding lush and live flora and fauna. Rudolph and Mailo state that this was where the live-aboard dive boats used to tie their mooring chain to the shipwreck, and the chain continual movement across the deck has cleaned it of all marine life (Figure 8.27).¹¹ This bare section may also be related to the bomb hitting the port quarter on 17 February 1944, although there are no major holes of twisted metal. No other visible damage related to the bomb hitting this area can be seen. Fish life across the shipwreck is prolific, from algae feeding surgeon fish, to schools of small bonito, turtles, small sharks, and the occasional manta ray (see Figure 8.34).



Figure 8.27: The bow gun and bitts in the foreground showing the signs of corrosion. (Photograph by Greg Adams, 2002).

There are three holds in the bow to mid-ship section of the ship that contain aircraft, in various sections, propellers, fuel tanks and landing gear. In the No. 2 hold there are the remains of at least five aircraft considered to be *Zekes* and what could be an earlier model fighter, a *Claude*—a total of

¹⁰ Many British guns were supplied to the Japanese Navy or built in Japan under license from British manufacturers in the early part of the 20th century (Spennemann 1995).

¹¹ The live-aboard dive boats have not tied to the deck bitts for at least five years but the area is still devoid of marine life.

six, more than the four stated in Figure 8.26. Bailey (2000: 289) also notes the existence of an unknown type. The aircraft are not complete. In most cases the fuselages are in two pieces and the wings are detached (Figure 8.28). The aircraft tentatively identified as a *Claude* has its fuselage in one piece, but only short sections of its wing attached to each side of the fuselage, and an identification number '39' on its upright rear wing, in the location of the torch light (Figure 8.29).



Figure 8.28: Anerit Mailo (Chuuk HPO) recording the aircraft in the hold of Fujikawa Maru (Photograph by Bill Jeffery, 2004).



Figure 8.29: The tail and fuselage of the Claude (Photograph by Bill Jeffery, 2004).

Other recognizable items in the holds include fuel drums, cables, munitions, a torpedo, a small boat outboard motor, and many other pieces of cargo that have been sorted and stacked by diving tourists (Figure 8.30). Moving back along the deck, the central superstructure, kitchens and bathrooms remain intact, and together with the numerous empty beer bottles, remind the diver of past human presence (Figure 8.31). On the starboard side of the superstructure, openings make it possible to descend and follow intact ladder-ways down to the engine room (Figure 8.32). Back up on the deck just forward of the central superstructure on the port side, an assortment of artefacts have been placed around two plaques, one dedicated to the memory of Kimiuo Aisek, 'Eyewitness to Operation Hailstone and Founder of the Chuuk Underwater Diving Industry'. The second plaque was placed there at the time of the 50th anniversary of 'Operation Hailstone' on 17 February 1994 (Figure 8.33).

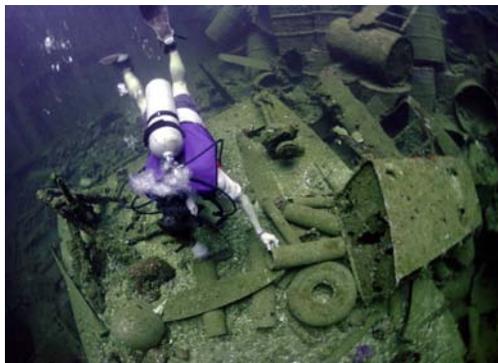


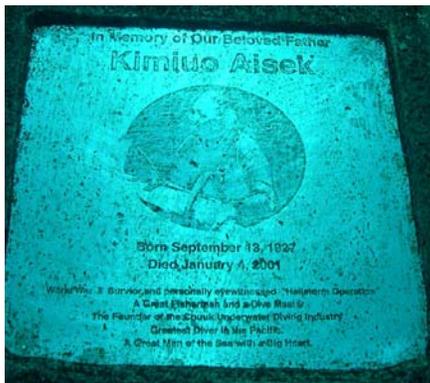
Figure 8.30: Some cargo remains in Hold No.1 (Photograph by Greg Adams, 2002).



Figure 8.31: Some of the many remaining beer bottles (Photograph by Greg Adams, 2002).



Figure 8.32: Top of the six cylinder diesel engine (Photograph by Greg Adams, 2002).



Figures 8.33a,b,c: The plaques on the port deck (Photographs by Bill Jeffery, 2006).



At the rear of the superstructure the No. 4 hold can be entered, and at the bottom of the vessel, a large hole in the starboard hull can be seen where a torpedo from a U.S. aircraft obviously caused a very large explosion and would have caused the vessel to sink. A further two stern holds contain chinaware, glass bottles and cooking pots before another gun on the deck in 24 m of water completes the general view of the ship at main deck level. The very bottom of the vessel is about 10 m below, where at the stern, the ship's rudder and propeller remain intact.

Ascent to the surface is generally up one of the king posts forward or aft of the central superstructure. The collapsed smoke stack of the vessel can be seen, caused by one of the large dive boats dropping its anchor some years before (Rudolph, A. 2002 pers.comm.). Various coloured fish, soft-corals, sponges and various other types of animals and vegetation are prolific across many parts of the vessel except where dynamite fishers drop their home-made bombs (Figure 8.34). This is evident on the upper, horizontal section of the 18 metre wide central superstructure and its vertical face (Figure 8.35). It is pock-marked with the scars of dynamite fishing, steel sections between reinforced uprights have corroded and collapsed, fresh corrosion is everywhere, and it is denuded of what once would have been a coral garden.



Figure 8.34: *Caesio caerulea* (scissortail fusilier) and *Pterocaesio tessellate* (one stripe fusilier) swimming over the bow of Fujikawa Maru (Photograph by Bill Jeffery, 2007).

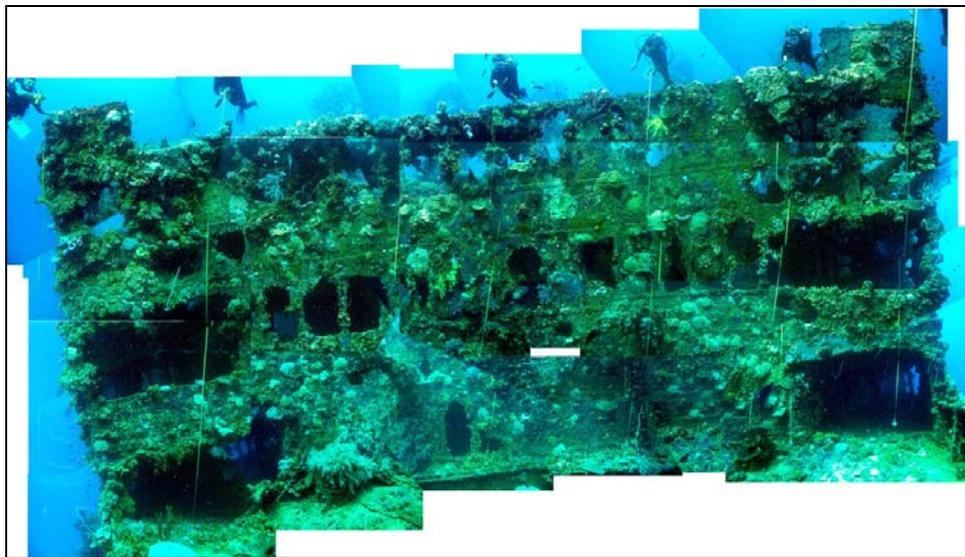


Figure 8.35: Photo-mosaic of the forward, vertical face of the central superstructure, showing numerous areas of renewed corrosion caused by dynamite fishing (Photograph and mosaic by Bill Jeffery, 2006).

The description of *Fujikawa Maru* provides a brief summary of the nature and condition of the ship, its associated biological diversity, and some of its archaeological and historical research potential. The strong ‘sense of place’ noted previously for this site, gained from the many artefacts associated with the crew, and the bomb damage that caused many Japanese to die. It provides a strong link to the war and its terrible human consequences, not to an enemy but to other ordinary people that manned the ships. It is indicative of many of the 50 submerged shipwreck sites located in the lagoon. The description touches upon some of the issues that illustrate the contested nature of this and many sites, such as dynamite fishing, the historical and archaeological values, diver impacts, and artefact souveniring. Other associations, such as war graves, have not been raised, but this and the other issues are discussed after the summary of the submerged aircraft surveys.

Submerged aircraft surveys

Eight submerged aircraft sites were surveyed and compared with information provided in Table 7.3 (see Chapter 7) and to supplement existing information. Site measurements, the number of engines, and location data confirmed site identifications. Table 8.3, and Figures 8.36 and 8.37 were produced as a result. Also implemented were side scan sonar surveys of a number of the aircraft (*Kate*, *Jill*, *Betty* and *Emily*) but they were not successful, as the sonar failed to distinguish any difference between the surrounding seabed and the aircraft remains.

Type	USA code	No. of engines	Wingspan (metres)	Location	Inspected	Latitude	Longitude
Mitsubishi A6M Zero	<i>Zeke</i> (1)+	1	11	Western end of Etten	Yes	7.355100	151.880520
Mitsubishi A6M Zero	<i>Zeke</i> (2)	1	11	Eastern end of Etten	Yes	7.361330	151.889800
Mitsubishi A6M Zero fighter	<i>Zeke</i> (3)	1	11	West of Weno	Yes	7.45800	151.83310
Yokosuka D4Y Dive bomber	<i>Judy</i> (4)	1	11.5	Eastern end of Etten	Yes	7.360940	151.889120
Nakajima B6N2 Torpedo bomber	<i>Jill</i> (5)	1	15	Eastern end of Etten	Not located estimated	7.363797	151.89779
Mitsubishi G4M Bomber	<i>Betty</i> (6)	2	25	Eastern End of Etten	Yes	7.351630	151.878290
Kawanishi H8K Flying boat	<i>Emily</i> (7)	4	38	South of Tonoas	Yes	7.356100	151.873480
Nakajima C6N Reconnaissance	<i>Myrt</i> (8)	1	15	West of Weno	Yes	7.41162	151.83745
Nakajima B5N2 Torpedo bomber	<i>Kate</i> (9)	1	16	West of Chuuk Airport	Not located estimated	7.45800	151.83300
Douglas SBD-5 Dauntless*	USA (10)	1	No wings remaining	North East Pass	Yes	7.520089	151.991667

Table 8.3: List of aircraft located in Chuuk Lagoon (from the historical and field survey data).

*A map for the U.S. aircraft has not been provided, + Numbers refer to aircraft in Table 8.4.

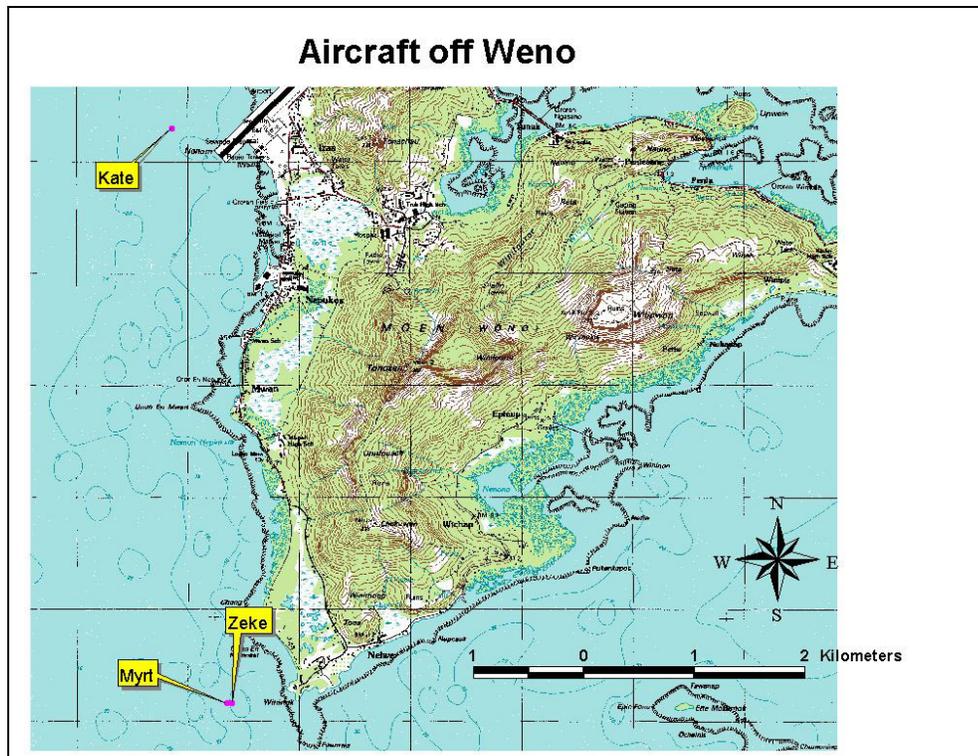


Figure 8:36: Location of submerged aircraft around Weno

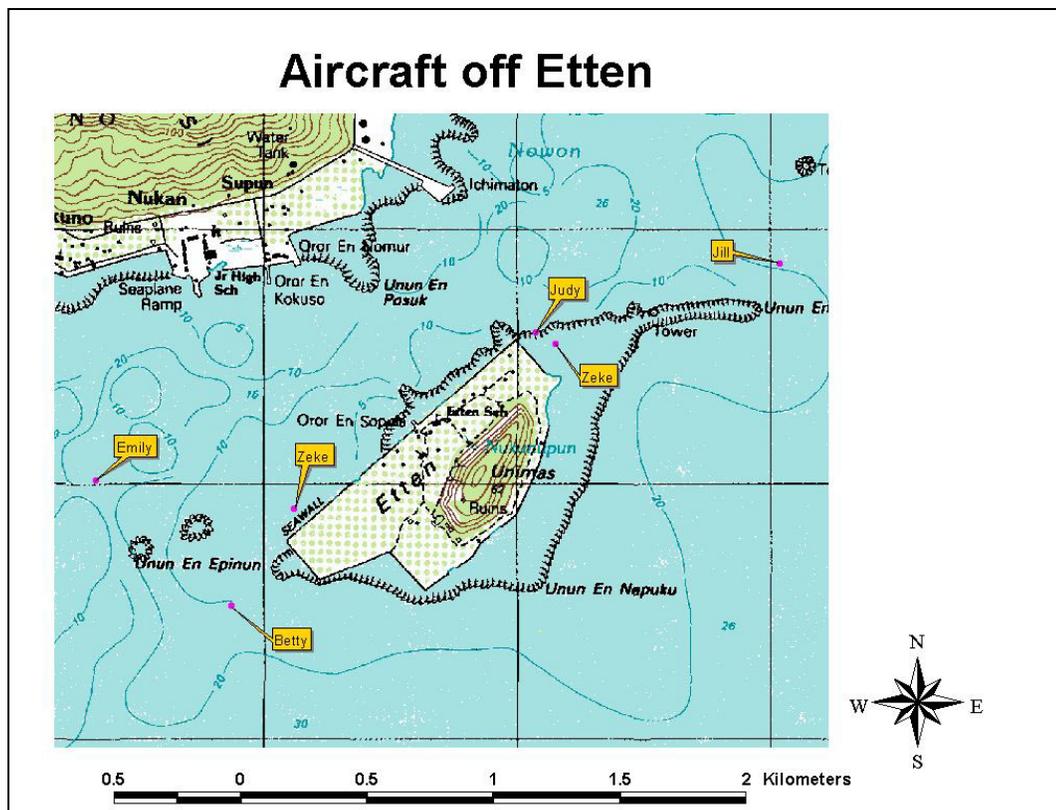


Figure 8:37: Location of submerged aircraft around Etten.

In 2002, a survey was carried out on the *Myrt* located near the Chuuk Hospital and identified in Chapter 7 (Figure 8.38). In 2004 it was purchased from the landowner by an individual from Pohnpei for several thousands of dollars (Dois, Dickenson 2004 pers.comm.). In 2004, Mailo (2004 pers.comm.) stated that the aircraft was still in its crate in storage in Chuuk. In 2006, I learnt that it had left Chuuk and it has therefore been omitted from the list of aircraft located in Chuuk.



Figure 8.38: Chuukese youth in the cockpit of the *Myrt*, sold by the landowner (Photograph by Jeremy Green, 2001).



Figure 8.39: The tail of the *Myrt* lying off the Blue Lagoon Hotel—formerly a Japanese seaplane Base (Scale 50 cm divisions) (Photograph by Bill Jeffery, 2004).

An investigation was implemented on an aircraft located west of the Blue Lagoon Resort in March 2004 (Figure 8.39). Curtis Block, a college student from Washington State, U.S., and an enthusiast on World War II aircraft had collaborated with Clark Graham about the identity of this aircraft, which they considered to be a *Myrt*¹² and which Bailey (2000: 493-494) had described as a *Jill*. On inspection, while the wingspan fits the size of the *Myrt* it also suits the *Jill*. However, the size of the ailerons on the wings, the fixed wings (the *Jill*'s were foldable) and the shape of the tailfin are indicative of a *Myrt* rather than a *Jill*. This aircraft is about one km off the Blue Lagoon Resort which was also the location of the seaplane base on Weno (see Figure 8.36). A quantity of war debris is to be found in the general vicinity of this *Myrt* which corroborates statements that this material was dumped by the U.S. after the war (Rudolph, A. 2004 pers.comm.). Denfeld (1981: 105) also refers to a *Zeke* in this area, documented by me in March 2004, in addition to the dumped material.

¹² Only 463 *Myrts* were built by Nakajima for the Japanese military and they operated as carrier-borne reconnaissance aircraft or night fighters (Francillon 1979: 434-439). They are now rare aircraft, only two intact examples left for public display, one being in the Washington Smithsonian Museum.

The one aircraft described as a *Judy* (Bailey 2000: 484-486) and a *Tony* (Hezel and Graham 1997: 8) used a similar 12-cylinder liquid cooled engine. The remains were assessed to be a *Judy*, given the shorter tapered nose, the adjacent two-seater cockpit, and the shape of the wing section (Francillon 1979: 112-120, 454-461) (Figure 8.37 and Figure 8.40).



Figure 8.40: The Judy off the eastern end of Etten
(Photograph by Bill Jeffery, 2004).

The *Zeke* reported by Denfeld (1981: 139) to be on the beach of Anangenimon Islet was investigated but no physical evidence could be seen on the islet or substantiated by people living there. The other *Zeke* located at the eastern end of Etten is in two metres of water and in a collapsed condition but exhibiting some interesting aspects such as the types of cannon used on *Zekes* (Figure 8.37 and Figure 8.41). Permission from the adjacent land owner was required to dive this and the other sites nearby, given their location is in shallow water and in close proximity to Etten.

Another most successful and prolific Japanese war aircraft was the Mitsubishi G4M (*Betty*) twin engine bomber and one is located on the western end of Etten (Figure 8.37). Unfortunately an anchor from a large dive boat has damaged part of this aircraft and one of its engines has been dragged 50 metres away (Rudolph, A. 2002 pers.comm.). A four engine Kawanishi H8K Flying boat (*Emily*) can also be found in good condition south of the *Betty* (Figure 8.37 and Figure 8.42). It is lying upside down on a sandy bottom and all the doors, instruments and fittings have been pulled out of the cockpit and fuselage and sorted for souvenirs.



Figure 8.41: The 20 mm cannon in the remains of the Zeke off the eastern end of Etten (Photograph by Bill Jeffery, 2004).



Figure 8.42: The upside cockpit of the Emily and two of its four engines (Photograph by Greg Adams, 2002).



Figure 8.43: The retaining wall that encompassed Etten airfield and showing the scars of the American bombing (Photograph by Bill Jeffery, 2004).



Figure 8.44: The 'upside down Zero' as it is known (Photograph by Greg Adams, 2002).

The nearby island (and former World War II fighter airstrip) of Etten has a number of aircraft parts lying off its shores. Much of the island has been reclaimed from the sea, and it still retains the wall constructed by the Japanese and the effects of the U.S. bombing in 1944 (Figure 8.43). The *Zeke* at the western end of Weno is upside down and given its close proximity to Etten and the fact that its propeller is not bent as it would be if it hit the water when under power, is most likely one of the aircraft that was lined up on Etten waiting for transport to Rabaul (Figure 8.37 and Figure 8.44). A survey of this aircraft was carried out using the *Site Recorder* computer program which allows for simple tape measurements to be corrected for any errors, and good three dimensional coordinates to be generated as well as a XY and XZ views. This data can be used to help monitor the movement of the site and any deterioration or disturbances, as well as to help map the nature and distribution of corals and sponges.

One additional submerged aircraft was documented during the surveys. An oral history was collected from former Chuuk HPO Officer in Charge, David Welle, who as a boy knew of a U.S. aircraft located near the North East Pass. He informed me that the cockpit was intact (he used to sit in it) and the fuselage contained markings identifying it as from the U.S. (Welle, David 2002 pers.comm.). The aircraft remains investigated in 2002 and located in less than two metres of water were found to be a single engine section with a three-bladed propeller. Based on photographs and a sketch, the 'U.S. Navy Historical Center, Underwater Archaeology Branch' in Washington, identified it as a Douglas SBD-5 Dauntless (Figure 8.45).¹³



Figure 8.45: Remains of the U.S. Douglas SBD-5 Dauntless aircraft. (Photograph by Bill Jeffery, 2002).

Discussion on site integrity and condition

While information was obtained on 34 of the known 52 submerged shipwreck sites through the side scan sonar, and was of value in the identification process, it was of little value in ascertaining their integrity, condition and intangible aspects. It was also of no value in the aircraft surveys. The surveys that could best inform on these further attributes, and that were required in this study were achieved through the diver surveys. A total of 28 submerged WWII sites (20 shipwrecks and eight aircraft) were investigated in the diver surveys (Table 8.4) and the breakdown in terms of the different site types is illustrated in Figure 8.46.

The sites are representative of the different submerged WWII site types in the lagoon. They also contain evidence of current uses and impacts, and are a good cross section in helping to inform how

¹³ Wendy Coble, aircraft specialist identified the remains.

different groups value the submerged WWII sites. The large merchant transport ships for instance, contain ship’s fittings, stores and cargo that divers souvenir, and can therefore reveal evidence of diver impact. They can also be a focus for dynamite fishers, being located in deeper water and attracting a good range of flora and fauna. In comparison, the smaller harbour ships, located in the more protected areas, such as the tugs, store-ship, gun-boat and dock-boat, do not provide evidence of much current activity. All of these sites are of potential value to the archaeologist and military historian, given the potential in revealing unrecorded details of the Japanese navy, as well as to the many natural marine scientists, given similar potential with regard to the natural environment. These sites, as for most sites in the lagoon, provide a tangible link to the war and the terrible human consequences.

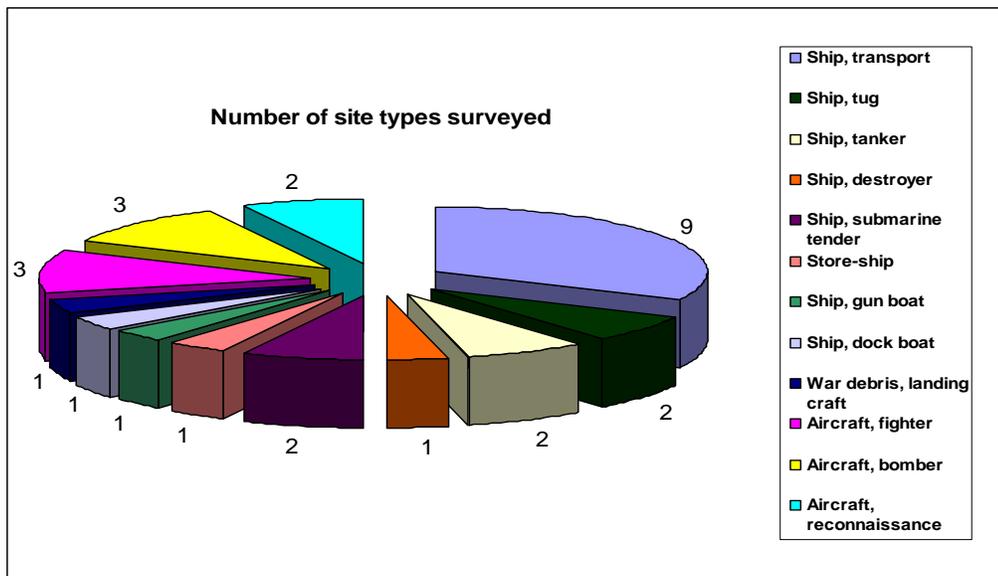


Figure 8.46: The number of different sites investigated.

The following discussion on the different values, uses and impacts are based on the surveys implemented and the oral histories collected during this study. To assist in this discussion, a summary of various attributes, uses and impacts discerned from the surveys are provided in Table 8.4. These factors, while not definitive in describing site values, do provide a guide to their values. The ‘integrity’ of a site refers to how it compares to its original, pre-sunk state and is described in the table as excellent (E), good (G), fair (F) or poor (P). ‘Condition’ refers to its current physical state, whether it is intact (I), breaking up (B) or collapsed (C), and is based on general observations. A more scientific assessment of condition was implemented by Dr Ian MacLeod (see later section for a further discussion on site corrosion). The ‘use’ of a site includes tourism (T), fishing (F), war remembrances by Japanese, including passive and active remembrances (W), or no known use (N). Passive war remembrances are those where I have only observed human remains or been informed

of them. Active remembrances are those where I have also observed Japanese pilgrimages to the site. The ‘impacts’ on a site refer to human impacts and include the removal or disturbance of artefacts (R), anchor damage (A), dynamite fishing (D), and in some cases this is considered unknown (U) where no impacts were observed. All the sites are impacted by their marine environment and storms. While it is too simplistic to say depth is the major indicator of site deterioration, it is a significant one (deeper sites receive less impact from storms and contain less oxygen in the surrounding environment), and therefore depth has been included rather than attempt to qualify the impact of the natural environment on each site (MacLeod et al. 2007: 54). Due to the nature of the remains or the slope of the seabed, the depth of various parts of a site can vary.

<i>Site Name</i>	<i>Type</i>	<i>Depth (metres)</i>	<i>Integrity</i>	<i>Condition</i>	<i>Uses</i>	<i>Impacts</i>
<i>Ei-sen No. 761</i>	Tug	11-18	E	I	N	U
<i>Fujikawa Maru</i>	Transport	12-35	E	I	TFW	RAD
<i>Futagami</i>	Tug	12-28	E	I	T	U
<i>Gosei Maru</i>	Transport	6-37	G	I	TFW	RA
<i>Heian Maru</i>	Transport	14-37	E	I	T	RA
<i>Hino Maru No. 2</i>	Sub-tender	2-15	P	B	T	A
<i>Hoyo Maru</i>	Tanker	3-34	F	B	T	U
<i>Nippo Maru</i>	Transport	27-50	E	I	TF	RAD
<i>Rio de Janeiro Maru</i>	Sub-tender	15-34	E	I	TF	RA
<i>Sapporo Maru</i>	Store-ship	19-33	E	I	T	RA
<i>Shinkoku Maru</i>	Tanker	11-37	E	I	TFW	RAD
<i>Susuki</i>	Destroyer	3-17	F	B	TFW	RA
<i>Unkai Maru No. 6</i>	Transport	30-40	G	I	T	R
Unknown D	War debris	17-20	F	I	T	A
Unknown E	Gun boat	5-8	P	C	N	U
Unknown F	Transport	60+	?	?	N	U
Unknown G	Dock boat	12-20	E	I	F	U
<i>Yamagiri Maru</i>	Transport	23-37	G	I	TW	RA
<i>Yamakisan Maru</i>	Transport	3-46	F	B	TFW	RAD
<i>Yubae Maru</i>	Transport	24-35	F	B	N	U
Aircraft	Zeke (1)	8-9	E	I	T	U
Aircraft	Zeke (2)	0-2	P	C	T	U
Aircraft	Zeke (3)	18	P	B	N	U
Aircraft	Judy (4)	5	P	B	T	U
Aircraft	Betty (6)	15	P	B	T	RA
Aircraft	Emily (7)	18	G	B	T	RA
Aircraft	Myrt (8)	18	G	I	N	U
Aircraft	Douglass SBD-5 (10)	0-2	P	C	N	U

Table 8.4: A list of sites surveyed and some of their attributes.

Japanese war graves

This is a sensitive, and an important issue in this study and is investigated in more detail in Chapters 9 and 10. Human remains are still located on some submerged WWII sites. During the surveys, only two human bones were observed in the tanker *Shinkoku Maru* (Figure 8.47). It is known a human skull can be found on the *Yamagiri Maru* and dive guides show the skull to diving tourists as they do with another skull on the *Gosie Maru* (Guilfoyle, Eamon 2006 pers.comm.). Colin Hodson, Manager of Townsville's commercial diving training establishment 'Dive Bell' photographed human remains on the *Shinkoku Maru* in 1979, and skulls on the *Aikoku Maru* in 2000 (Figure 8.48). A number of Japanese groups have reiterated a request for divers to respect these sites as war graves and for instance, not to enter the *I-169* submarine which was lost with all crew, and which I observed in 2004 was the subject of a documentary film which involved penetrating the hull.



Figure 8.47: The operating table with two human bones in *Shinkoku Maru*
(Photograph by Greg Adams, 2001)



Figure 8.48: Human remains in *Aikoku Maru*
(Photograph by Colin Hodson, 2000)

Tourist operator impacts: moorings

Currently the two land-based commercial recreational dive shops, *Blue Lagoon* and *Truk Stop*, operate between them about 10, eight metre dive-boats, capable of carrying up to eight divers each, and one, 12 metre boat. Of the two live-aboard dive boats based in Chuuk, *Odyssey* can carry up to 16 divers and moves from site to site, while *Thorfinn*¹⁴ remains moored between Fefan and Tonoas and can utilize up to five, 8-10 metre boats for their 22 divers (Figure 8.49). Up until 2005, a third live-aboard *Truk Aggressor* was based in Chuuk. While I have quoted figures in Chapter 9 that suggest up to 10,000 divers annually may have visited Chuuk in 1996, the current figure is around 3,000 per year. Diving is carried out all the year round.

¹⁴ In June 2007, *Thorfinn* was grounded on a reef off Pohnpei, and refloated but not as yet repaired (Bruton, Larry 2007 pers.comm.)

There is physical and oral history evidence that the live-aboard dive boats, in their past mooring practices, have damaged some sites such as *Fujikawa Maru*, *Shinkoku Maru*, *Hanakawa Maru*, *Yamakisan Maru*, and the *Betty* aircraft (Hezel and Graham 1997: 31). In recent years, moorings have been placed adjacent to some sites. Other sites, such as the *Yamakisan Maru* and *Gosei Maru* exhibit physical evidence of the impact from the smaller boat anchors (Figure 8.50). When diving interest in the newly discovered *Sapporo Maru* began from the smaller boats in 2002, the way to find it was to drag a small boat anchor behind the boat until it hooked onto the shipwreck. This practice is known to break off sections of the fabric, and initiate further corrosion. Some of the deeper sites, such as the *San Francisco Maru* in 60 metres of water, and which has been dived for many years, are still found in this manner.¹⁵



Figure 8.49: Odyssey in the background. HPO Maru staff Arimichy Rudolph (left) Anerit Mailo (right) with staff from the Chuuk Department of Transport (Photograph by Bill Jeffery, 2001)

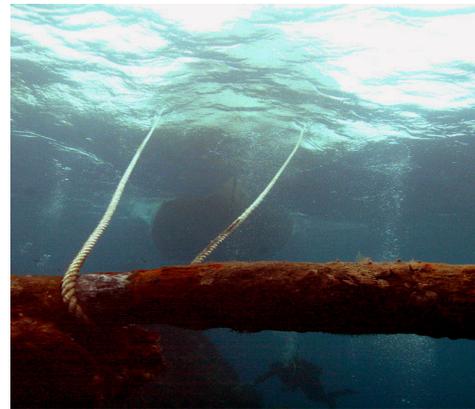


Figure 8.50: A collapsed davit on Gosei Chuuk Maru being used to tie-up a dive boat, exhibiting total concretion loss, bare metal and renewed corrosion (Photograph by Bill Jeffery, 2001).

Tourist diver impacts: souveniring

Divers sort through material inside cabins, remove and place them in the better lit upper-decks, where they can be sorted for souvenirs, or be positioned for photographs. This action not only reduces the archaeological value of the artefacts as they are taken out of their context, but it can accelerate their deterioration by interfering with their equilibrium after so many years of deposition. Ultra violet light and other environmental factors attack the fabric of the material, particularly organic materials. There is still the potential to find interesting and currently well preserved artefacts, including blue and white porcelain containers, bottles, first aid boxes, gas masks, shoes, boots, telephones, binoculars and medicines. Figures 8.51 and 8.52 show an identical area inside a

¹⁵ This is not an uncommon occurrence in other countries where dive tourism is carried out on shipwrecks.

cabin on *Shinkoku Maru*, taken by Colin Hodson in 1978 where artefacts had been stacked to sort through for souvenirs, and the other, 22 years later. In 2004, I dived with a group of tourist divers who went straight to the bottom of a hold of *Unkai Maru No.6* where they buried their hands in silt and within a few minutes they extracted leather boots and shoes, which they simply left to deteriorate (Figure 8.53). The other impact of divers on the fabric of sites is the combination of knocking into the ship's structure and exhausting air from their scuba tanks, which can renew and accelerate corrosion, as well as displace gasoline stored in drums (Rudolph, A. 2004 pers.comm.).



Figure 8.51: Artefacts collected and stacked inside Shinkoku Maru (Photograph by Colin Hodson, 1978).



Figure 8.52: The same area as in Figure 8.51 showing the attrition and sorting of artefacts (Photograph by Colin Hodson, 2000).



Figure 8.53: Leather boots and shoes plucked out of the silt and left to disintegrate on Unkai Maru (Photograph is not sharp, by Bill Jeffery, 2004).

Munitions removal and dynamite fishing

Evidence of dynamite fishing on the shipwrecks can be seen by the complete destruction of all life forms and the renewal of corrosion, as was found on the central superstructure of the *Fujikawa Maru*, around the bow bitts, and on its bow gun (Figures 8.27, 8.35 and 8.54). Other evidence of dynamite fishing is the depletion of the munitions from some shipwrecks, which is evident in the reduction in the number of sea mines from the *San Francisco Maru* (Figure 8.55). In 2000, this same area had very few remaining sea mines (Bailey 2000: 428). Munitions are frequently encountered on many sites, from large torpedoes on the *Heian Maru* (Figure 8.56) to the small calibre rounds for machine guns found on the *Yamakisan Maru*. It is an area of great concern not just for the marine life on the shipwrecks, but also for the fishers, who continue to recover them even though there are ongoing accounts of burns, loss of limbs and deaths associated with their recovery and re-use. From the tourism perspective, there has not been a recorded death of anyone knocking into them and setting them off, which according to one expert would be what is needed to detonate them underwater (Utley, Bill 2007 pers. comm.).



Figure 8.54: Coral loss and renewed corrosion from dynamite fishing on Fujikawa Maru bow gun. Scale 50 cm divisions (Photograph by Bill Jeffery, 2006).



Figure 8.55: Sea mines in the hold of San Francisco Maru (Photograph by John Riley, 1995).



Figure 8.56: A torpedo on the submarine tender Heian Maru. (Photograph by Greg Adams, 2002).

Historic and archaeological values

A number of examples have been cited in this chapter in relation to the archaeological potential and value of some sites, including the converted bonito fishing vessel and its connection with the pre-war fishing industry, the 'Hayabusa, anti-submarine, anti-PT "high-speed boat"', the deep site off Fono Mu Island, and the *Myrt* aircraft. The aircraft in Chuuk for instance are an important source of archaeological information about Japanese World War II aircraft, and those located in *Fujikawa Maru's* hold appear to represent what was required in Chuuk and Rabaul, as well as what was available. The existence of a *Claude* however raises some interesting questions about the types of aircraft stationed here. The *Claude* (a single-seater) was not manufactured after 1942 and there are no *Claudes* on any of the official lists for Chuuk. It is known that the construction of aircraft in Japan in the latter years of the war was difficult due to a shortage of materials, although the peak production period for *Zekes* was in August 1944 (U.S.N 1952e: 49). Was this *Claude* one of a few older aircraft brought to Chuuk due to a shortage of more modern types, or for training, or for freighting to Rabaul? In an interview after the war with Vice-Admiral Fukudome (Chief of Staff, Combined Fleet from May 1943 to March 1944), he stated 'some of those merchant ships were those which were engaged in sending supplies to Rabaul' (U.S.SBS 1945b: 518). Fukudome had already stated: 'The general agreement between the Army and the Navy in the Imperial General Headquarters regarding Rabaul and that region was that the Navy should supply most of the air strength including land based planes. However, by that time we lost so heavily it became necessary to send carrier-based planes there' (U.S.SBS 1945b: 517). It seems likely that the *Fujikawa Maru* was loading aircraft, or had aircraft in its holds from its January visit to Japan, and was to transport them to Rabaul.¹⁶ The material evidence in Chuuk has great potential in investigating Japanese war practices, which may support or dispute the historical record.

No research was conducted on the many portable artefacts found on the sites but they could also assist in pursuing a number of lines of investigation. What was initiated in this study was an examination of a number of artefact collections. This was undertaken to gain an appreciation of the type of artefacts recovered and why they were recovered, rather than in pursuing any type of artefact research.

¹⁶ It was known that 'some *Claudes* saw brief service against the allies, especially in the U.S. carrier raids against bases in the Marshall Islands [1942 then 1944]; a few were based in Rabaul in the very early spring of 1942, and the Japanese light carrier *Shoho* had a mixed fighter squadron of *Claudes* and *Zeros* at the Battle of the Coral Sea [May 1942], but eventually all of them were replaced by *Zeros* and retired to second-line and training duties in the Japanese home islands. Nearly all of the remaining A5Ms and A5M4-Ks [*Claudes*] were expended in suicide attacks against Allied ships cruising off the coast of the home islands in the final months of the Pacific War'. <http://www.wwiitech.net/main/japan/aircraft/a5m/index.html> accessed 18 May 2004.

Recovered artefacts

A total of 85 artefacts were located at the Chuuk Visitors' Bureau and Xavier High School on Weno. The artefacts include the *Seiko Maru* bell, lanterns, machine guns, bottles, and ceramic ware (Figure 8.57). It is possible that some of the artefacts have come from terrestrial sites, as only 25 are labelled as being related to any particular shipwreck, those being the *Fujikawa Maru*, *Yamakisan Maru*, *Seiko Maru*, *Shinkoku Maru*, and the *Betty* aircraft. It is also possible that they are all related to the submerged WWII sites and have just not been labelled as such.

Many of the artefacts are labelled as having been donated by the Department of Marine Resources, the Chuuk government agency responsible for the Chuuk legislation protecting the submerged World War II sites. These artefacts were most likely seized from divers who recovered them illegally and were attempting to export them from Chuuk. Many of the artefacts are in poor condition and require conservation but many are too deteriorated, suggesting they have been recovered from a marine environment and not conserved. Some of the conservation problems are due to the lack of environmental controls and inappropriate display.



Figure 8.57: An exhibition of World War II artefacts at Xavier High School (Photograph by Bill Jeffery, 2001).

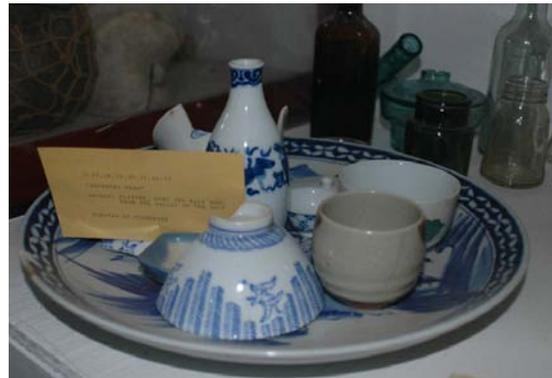


Figure 8.58: Some of the artefacts on display at the Chuuk HPO (Photograph by Jon Carpenter, 2006).

In 2006, the display of World War II material at the Chuuk Visitors' Bureau was dismantled and some of the material is now located with Chuuk HPO (Figures 8.58). The display also included ethnographic material or reproductions of traditional Chuukese material culture, such as model canoes, fish traps and coconut grinders.

It is also known that the *Blue Lagoon* dive shop exhibits World War II artefacts, some of which are from submerged shipwrecks and aircraft (Figure 8.59). For instance it is known that an unknown

quantity of bells from some shipwrecks is held there. Gradvin Aisek plans to use this material to establish a museum in memory of his father Kimiuo (Aisek, Gradvin 2006 pers.comm.).



Figure 8.59: Munitions and guns from World War II sites at the Blue Lagoon dive shop (Photograph by Jon Carpenter, 2006).

Corrosion Survey

The primary metal of the submerged WWII sites is iron, steel and/or aluminium. Ferrous metals are highly prone to corrosion in a marine environment and although concretion can build-up to slow down corrosion rates, natural and human related interferences can change and accelerate it, leading to structural collapse. This collapse may be a justified part of site management, if based on the significance and values of a site in association with a conservation assessment. This is an issue that site managers of USS *Arizona* are investigating (see Chapter 10). I have only alluded to this issue in this study through the investigation of site values. The associated science is addressed in detail by MacLeod (2003, 2005, 2006a, 2006b). Given the diverse values and issues inherent in some of the submerged WWII sites in the Pacific (war graves, tourism, oil pollution), allowing vessels to collapse as part of their management, needs to be considered very comprehensively.

Data collected from corrosion surveys can also play a role in technical and scientific research. They have become a standard approach worldwide, in order to understand the rates of corrosion and what is influencing site condition. Through these studies, it is possible to ascertain site stability and longevity—an important issue from a diving tourism and environmental (oil leakage) point of view. It is unknown how much oil is still trapped in the lagoon sites, or if it has dissipated gradually over the last 60+ years as is suggested by Earle and Giddings (1976: 603). While renewed metal corrosion is visible in areas of dynamite fishing it is not known to what degree this is accelerating and diminishing the integrity of the ship's structure. Corrosion surveys allow this to be measured

and monitored. Coupled with the impacts from infrequent typhoons, the potential collapse of some ships is real and if oil is released in large quantities, it will have a devastating impact on the marine environment.

MacLeod is the leading scientist in this field and his 100 page report on the submerged WWII sites is an important step in understanding their corrosion and their potential longevity (MacLeod 1989, 1996, 1998, 2003). During the corrosion surveys conducted over a three week period in April-May 2002, a total of ten shipwrecks and four aircraft were examined (Figures 8.60 and 8.61).



Figure 8.60: Taking corrosion measurements on the tank on the deck of Nippo Maru (Photograph by Bill Jeffery, 2002).



Figure 8.61: The sealed box containing the meters and showing the drill used to penetrate the concretion and corrosion product (Photograph by Bill Jeffery, 2002).

The methodology used in the survey, the analysis and findings can be found in Macleod's (2003: 8-9) report, but some of his key findings were:

Based on this provisional estimate of perforation times, many of the wrecks in Chuuk Lagoon will retain their existing integrity for only the next ten to fifteen years before they begin to undergo significant collapse. This has major implications for the management of the sites and for the safety of divers undertaking penetration dives. Analysis of the corrosion behaviour on the wrecks has shown up irrefutable evidence of the damaging effects of episodic changes to the microenvironment of the wrecks. Such changes are consistent with major microenvironment damage that is consistent with physical impact of either shockwaves from dynamite fishing or from massive tropical storms. The periodic shedding of the protective layers of marine concretion cannot be allowed to continue, since this will inevitably result in an increased rate of decay of the shipwrecks.

This analysis was achieved through determining the annual corrosion rate of the metals (depth of graphitisation of a cast iron object divided by the number of years a vessel had been submerged) and which algorithm has a direct relationship with corrosion potential or voltage (relative to a

reference electrode) and which can be measured from other metals, such as wrought iron and steel. Through investigating the thicknesses of various metals found in ship's specifications in *Lloyds Register*, and measuring their corrosion potential, it is possible to determine their corrosion rate. MacLeod (2003: 8) found *Fujikawa Maru* structurally intact and was in the best condition in relation to overall corrosion damage as compared to the 13 other shipwrecks and aircraft. He also found that the Chuuk submerged WWII sites are 'corroding at 26-30% slower than the open ocean wrecks at the same depth' (MacLeod 2003: 79).

Earthwatch Institute project

As highlighted in Chapter 3, this aspect of my field work provided for further collaboration with Dr MacLeod, and initiated collaboration with Maria Beger, a marine ecologist, and other natural and corrosion scientists. The project proposed to implement a multi-disciplinary investigation into the submerged WWII sites through the involvement of volunteers from around the world, and a renewed and increasing involvement with Chuuk government agencies.

In addition to providing some data for this study, I also considered the Earthwatch (EW) project a recompense for the help many Chuuk government and dive shop staff had provided me since 2001. The EW project has a number of research questions to be investigated, but a major aim is to assist the Chuuk government with information on the tangible values, health and longevity of the sites that would be useful in their management.¹⁷ These investigations include such things as evidence of oil leaking and the structural integrity which they could use to solicit funds for remedial work.¹⁸ Dr MacLeod had been lobbying for a return to Chuuk to verify some of his conclusions from his 2002 survey. With regard to the marine ecology and biodiversity, Maria Beger (in association with Mandy Hengeveld) stated in the project proposal that:

The coral reef communities, diversity and health in Chuuk, although considered very rich, is poorly documented. For instance, while the expected number of scleractinian corals is 391, only 92 are presently recorded in the IUCN-WCMC database for the Federated States of Micronesia (Spalding et al. 2001). Practically no specific coral reef data exist. The most recent 'Status of Coral Reefs of the World' report describes Chuuk as the largest exporter of commercial reef fish species, and notes that destructive fishing practices with explosives from the shipwrecks have caused reef damage in the lagoon (Wilkinson 2002). No information about coral reef health or the status of the artificial reefs, the shipwrecks, was presented. By comparing reef communities and diversity on natural reefs with those on the shipwrecks, predictions about colonization processes, human impacts and future marine

¹⁷ The Project Proposal is incorporated into the 'Briefing' given to all Earthwatch volunteers and can be found at <http://www.earthwatchexpeditions.org/US/exped/jeffery.html> accessed 31 October 2007.

¹⁸ As an example, the Chuuk government has no underwater camera to photograph evidence of damage or oil leaking that can be used in supporting their arguments for funding or support of remedial work. This and other scientific evidence can be obtained from the Earthwatch project.

resource development can be made. Conservation of coral reef communities will be of great benefit to maintain economic values of sites and biophysical function of the ecosystem. There has been no recent survey of the current status and diversity of coral reefs in Chuuk, thus this survey will provide much needed data to local and regional authorities for management.

From a 1975 survey of the submerged WWII sites, marine biologist Sylvia Earle (1976: 578-602) made similar comments on the value of the marine biology and the need for further studies.

Site surveys commenced in July 2006 and since that time five teams each of six EW volunteers and team leaders have implemented biological, corrosion and archaeological surveys on 11 selected sites (Jeffery 2007). The fieldwork has accumulated considerable data, much of which is still being analyzed. Tangible outcomes from the project so far have involved the compilation of marine invertebrate and vertebrate species databases (including a comparison with island reefs and the barrier reef). As an outcome, the 2007 marine biology Principal Investigator (PI), Mike Emslie et al. (2007: 5-11) recorded a total of 266 species from 33 families of reef fishes and surprisingly two of the shipwrecks, *Kensho Maru* and *Fujikawa Maru* had the highest density of reef fishes from the ten sites (including three natural reefs) surveyed. The reef around the South Pass (channel through the barrier reef) revealed the lowest density of any site surveyed, although it was found this reef had the greatest variety of species. While *Kensho Maru* and *Fujikawa Maru* contained the largest number of reef fish in the transects surveyed, it was found that many species of larger fish normally found in reef communities, did not exist on the shipwrecks. This is considered to be as a consequence to over-fishing, most likely associated with dynamite fishing practices. Other issues of concern and recorded by Emslie (et al. 2007: 7-9) were the numerous signs of damage from crown-of-thorns starfish (*Acanthaster planci*), to an extent that would be considered ‘plague proportions on Australia’s Great Barrier Reef’, and a number of large *Lobophyllia* colonies that had been damaged, presumably by anchors hitting them (Maynard 2007) (Figure 8.62).

On a more positive note, a rare scleractinian coral, *Acropora pichoni* was found on *Fujikawa Maru*. Ten individuals were found at depths between 13-20 metres which is significantly shallower than its known depth range. Rare species are not common on artificial reefs and it ‘highlights the potential of artificial reef habitat to act as a refuge for rare coral reef species, and also emphasizes the need of protecting the Chuuk wrecks for biodiversity conservation’ (Beger and Richards 2006). Further archaeological site investigations included detailed recording of the gun boat (‘Unknown E’), and during the 2006 fieldwork, the ‘new’ shipwreck (‘Unknown G’) was discovered and surveys were initiated. An investigation into the relationship of benthic material and metal corrosion, in which the

rugosity (the roughness of growth on the concreted metal surfaces) and how this influences corrosion—biodynamic interaction—was initiated in 2006 and continued during 2007 (MacLeod et al. 2007: 51-54) (Figure 8.63). ‘The increased surface roughness brings about increased water flow or turbulence over the wreck and this increases the flux of dissolved oxygen to the surface and thus the amount of corrosion increases’ (Emslie et al. 2007: 17). During the 2007 fieldwork, Macleod found the thickness of the concretion on the *Susuki* and *Fujikawa Maru* to be significantly less and in combination with more acidic pH values (which reflected localized corrosion rates) concluded the sites had been impacted by dynamite fishing since his initial survey in 2002. This work is leading to the development of corrosion and biodynamic interaction models which will further the understanding of the corrosion and longevity of the sites and assist in their future management (Emslie et al. 2007: 22; MacLeod et al. 2007: 51-54).

During the 2007 field work an investigation of a site reported to be leaking oil, *Hoyo Maru* was implemented although no effects of oil pollution could be found on the site. However, a one-two km long slick was witnessed which was being blown toward an area of mangroves on Tonoas. A water sample was collected and passed onto the Chuuk Department of Marine Resources, as was a full report on all the project’s findings (Emslie et al. 2007).



Figure 8.62: A Lobophyllia colony on the Fujikawa Maru after suffering anchor damage (Photograph by Mike Emslie, 2007).



Figure 8.63: EW volunteer Norma Kreischer and EW Dive Master Mike Delaney recording rugosity on the converted bonito fishing vessel (Photograph by Anerit Mailo, 2006).

The EW volunteers (the majority being Americans) were very keen to dive the submerged World War II sites, but they knew little about Chuuk, its people, and the many social and political issues they face today. Broadening the context of the sites, from symbols of U.S. victory and unequalled dive destinations, to their social relevance to Chuukese and Japanese people during the war and today, were some of the other objectives of the EW project (see Chapters 9, 10, 11 for a further discussion on these issues). From the personal comments I received, and the discussions I had with some of the EW volunteers, I feel that this has been partly achieved as seen in some of the formal EW feedback from two of the 2007 volunteers:

I've gained a greater understanding of the people of Chuuk, and reasons for their indifference to the wealth of WWII shipwrecks in their lagoon. I've also gained an appreciation of how difficult it may be to preserve these wrecks, given the fact that the Chuukese in general do not regard these as a resource or as treasure, but rather as reminders of a painful time during which they were innocent bystanders in a war between superpowers.

I have a much greater appreciation for the environmental, social and cultural issues facing Chuuk and the wrecks in Truk Lagoon. It is an extremely complicated issue that will take a multi-dimensional approach to finding a solution. This awareness will allow me to speak more intelligently to others interested in helping be a part of the solution.

One of the further issues that is being encouraged with EW volunteers is in obtaining their assistance to collect oral histories from war survivors, as well as younger men and women on how they value and interpret the war remains today. During the 2007 field work program, in association with Ed Slaughter from the Museum of Tropical Queensland, the compilation of oral histories from Chuukese dive guides commenced. Some of the dive guides have been diving the shipwrecks for over 20 years and have never formally told their stories. The aims of these oral histories are to investigate how they value the sites, and what changes and influences they have seen in relation to the sites.

However, the majority of Chuukese do not dive and will never view the submerged WWII sites. They do see the many terrestrial war remains, and many Chuukese—from World War II survivors, to younger people—have stories about these sites and their relationships with Japanese and Chuukese individuals and families. The terrestrial war sites help to place in meaningful context the submerged WWII sites and it is in this context that I have included a short section on the terrestrial sites in this study.

Survey of the terrestrial World War II sites

Bailey (2000), Craib (1997), Denfeld (1981), King and Parker (1984) and to a lesser extent Young (1997) provide evidence of the numerous terrestrial Japanese military remains (hereafter referred to as terrestrial WWII sites) on many of the islands. In his research, Denfeld (1981: 17) found that Chuuk was defended with 186 army and navy guns up to 200mm bore diameter, and 302 automatic weapons of smaller calibre. Based on his field surveys, Denfeld (1981: vii) documented that, Chuuk ‘has *insitu* as many guns as all of Europe’ (Figure 8.64 and 8.65). It has numerous other types of Japanese war remains located on many islands including concrete pillboxes, bunkers, communication buildings, footings for prefabricated timber buildings, airstrips and ramps, wharves and docks, steel cranes, search lights, munitions and fuel tanks, and a number of memorial tablets related to pre, during and post war people, activities and burials (Jeffery 2003).



Figure 8.64: Arimichy Rudolph standing next to one of four, 20 cm coastal defence guns taken off the Japanese warships Iwami, Iwate, Nishin and Kasuga and placed near the Sapuk lighthouse on Weno (Scale in 30 cm divisions) (Photograph by Bill Jeffery, 2004).



Figure 8.65: One of the two anti-aircraft guns on the top of Nenengua on Tonoas (Photograph by Bill Jeffery, 2002).

In 2001, I was asked by Gradvin Aisek to assist in the production of interpretive literature and signs describing the terrestrial WWII sites for tourists visiting Tonoas and Etten. While surveys had been implemented on some terrestrial WWII sites on Tonoas, the outcomes were not tourist orientated and I therefore suggested a further survey with the chiefs and landowners of Tonoas and Etten. Aisek was keen to promote the islands to visitors on their non-diving days. A number of Japanese tourists also visit old friends on Tonoas and pay their respects to fallen comrades. Through Chuuk

HPO, I obtained funding to implement the outcomes for the benefit of the Tonoas Municipal office.¹⁹

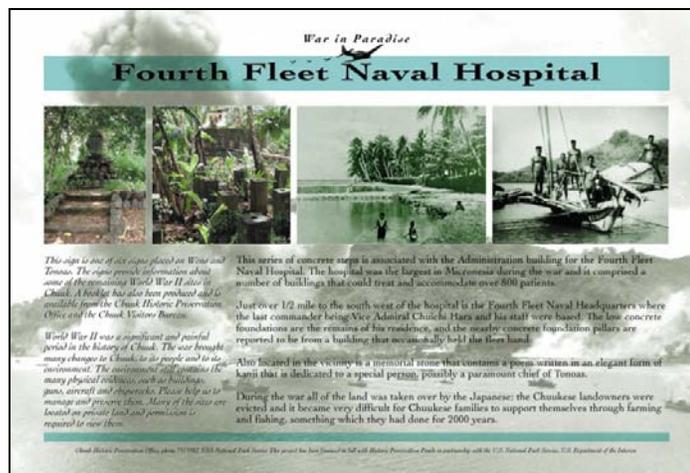


Figure 8.66: One of the six interpretive signs placed on Tonoas (Text by Bill Jeffery, design by Judi Francis).



Figure 8.67: Some of the chiefs of Tonoas with Gradvin Aisek at extreme left (Photograph by Bill Jeffery, 2001).

Aisek was able to coordinate all the chiefs of Tonoas and other key personnel to assist in the survey, of whom some were survivors of the war (Figure 8.67). These war survivors were teenagers at the time of *Operation Hailstone* and most were working for the Japanese in some capacity, including Tong Misa (second from the left in Figure 8.67), of Nechap and Chairman of the traditional chiefs

¹⁹ A booklet and six interpretive signs were produced as outcomes of this work—and which have been published on the Guam park website <http://www.nps.gov/wapa/indepth/extContent/wapa/paradise/index.htm> accessed 3 January 2005.

of Tonoas and Joshua Suka (second from the right) of Sapou village, both of whom I referred to in Chapter 5.

The terrestrial WWII surveys consisted of reconnaissance surveys of over 200 sites comprising documentation of site locations and descriptions and ethnographic surveys (Figure 8.68). Through the ethnographic surveys I found there was considerably more empathy amongst the Chuukese men about the terrestrial WWII sites as compared to the submerged WWII sites. This may have been because their Mayor was keen to see the Tonoas sites more widely promoted and his encouragement may have meant they were more enthusiastic about providing this information, although this would not change the fact that the sites were significant. But when I asked about the shipwrecks, many located just off their island, they were less forthcoming and enthusiastic. I discuss this aspect in more detail in Chapters 9 and 10.

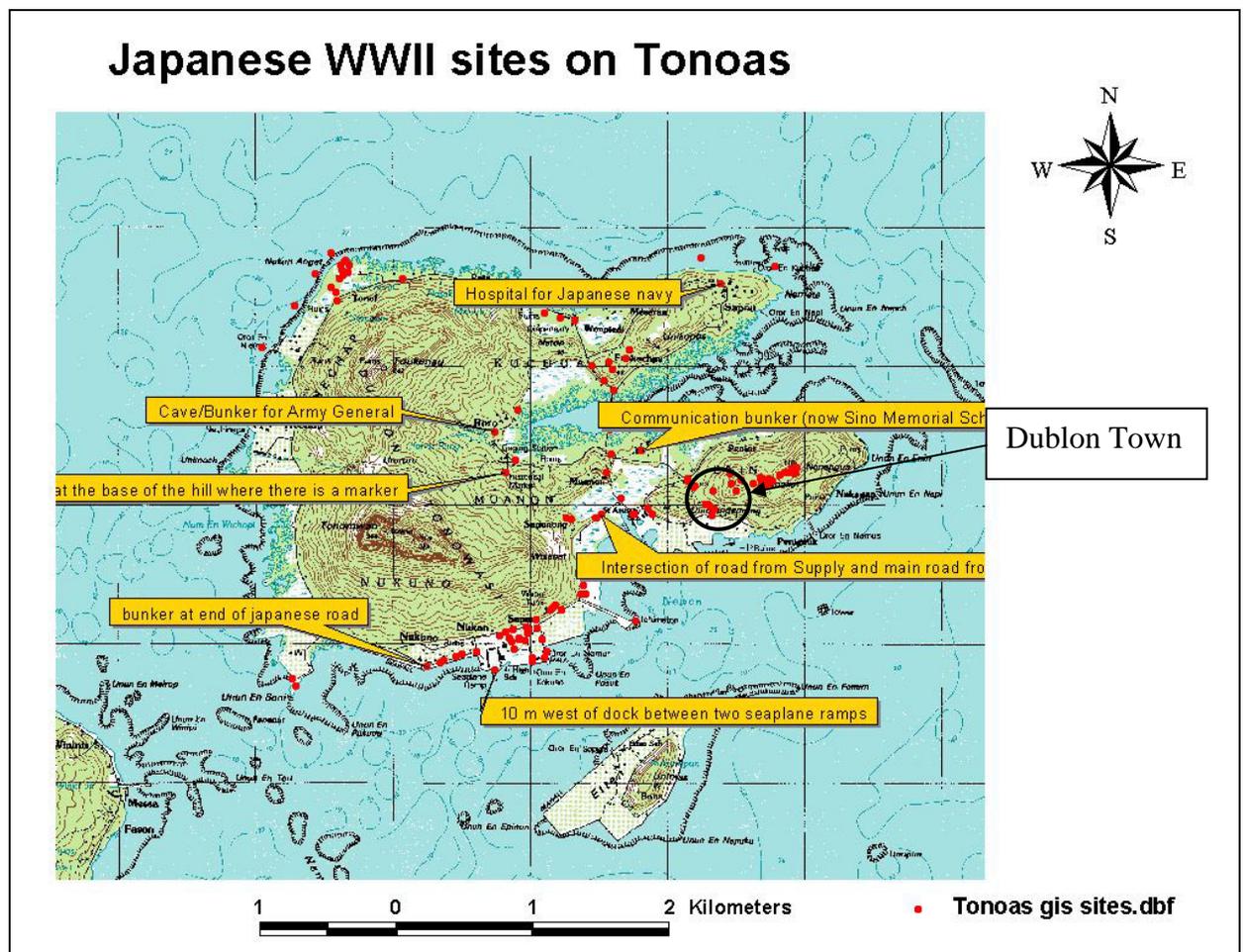


Figure 8.68: A map of Tonoas showing the location of some of the many military sites.

Tonoas was well built-up, as the pre-war, and during the war period centre for the Japanese, which has been described in some detail in Chapter 5. In 1945, ‘the physical damage done by the war was appalling ... The industries so carefully developed by the Japanese lay in ruins; many taro swamps, breadfruit groves, and stands of coconut palms had been destroyed; and a great deal of land had been made worthless by intensive planting’ (Mitchell 1967: 68). In 2002, much of the cleared land and many of the Japanese building remains were overgrown. The Japanese construction techniques (concrete foundations using prefabricated timber panels and iron roofs) were evident as was evidence of their re-use by Chuukese (Figure 8.69). Others, such as the communication or base headquarters had been built of solid reinforced concrete walls and roofs and were being re-used with no modification. The current Tonoas High School is located on the seaplane base with the Principal’s office sitting on top a concrete bunker (Figure 8.70).²⁰



Figure 8.69: Contemporary Chuukese home utilising the concrete foundations from the Japanese school (Photograph by Bill Jeffery, 2001).



Figure 8.70: The Principal’s office sitting on top a concrete pillbox located at the Seaplane base, Tonoas (Photograph by Bill Jeffery, 2001).

Japanese paved roads, particularly around the coastline are useable, but as they wind up the steep hills they become almost indistinguishable tracks amongst the prolific vegetation. Here the stories of Chuukese suffering were expressed by the chiefs, as men, women and children were pressed into dragging the heavy guns to the hill tops, some dying in the process. In the upland areas, away from the military bombing targets are also numerous caves that were dug by Chuukese families after their day’s work so they could shelter from the U.S. bombing. Chuukese were expected to help construct the many military facilities on their land including large concrete bunkers for sheltering against the bombing, but who were then barred from using these facilities.

²⁰ In 2006, it was found the school (the only one on Tonoas) was closed due to a dispute between the land owner and the Chuuk government.

One of the most heavily damaged areas was Dublon Town, located in the south east corner of Tonoas (Figures 8.68 and 8.71). The Japanese made Dublon Town into a thriving little town of about 800 inhabitants (Peattie 1988: 184) and at the time of the bombing it contained all the stores, cafes, repair shops, movie theatre, laundry and dentist that residents needed, including Joshua Suka's seal maker's shop.



Figure 8.71: A map of Dublon Town showing some of the many buildings and facilities located there during Japanese times, although little remains today, including Joshua Suka's seal maker's shop. Substantial remains include the Chuuk civilian hospital and stairs to Shinto shrine (circled) (Source, Joshua Suka).

While many of the buildings have gone today, some concrete buildings, foundations and stairways of the Chuuk hospital (Figure 8.72), Chuuk Shinto shrine (Figure 8.73), schools, comfort houses, pre and post war memorials can still be seen. Joshua Suka laments the good pre-war times in Dublon Town, the availability of food (mostly fresh fish), services and electricity compared to today's inadequate and poor conditions on Tonoas.



Figure 8.72: Remains of the Chuuk hospital built by the Japanese before the war (see Figure 4.13) (Photograph by Bill Jeffery, 2001).

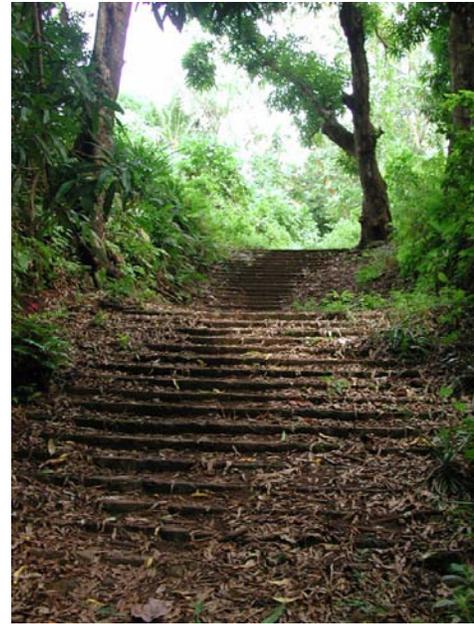


Figure 8.73: The stairs leading to the Shinto Shrine where everyone, Chuukese and Japanese would be required to attend weekly (Photograph by Bill Jeffery, 2001).

Conclusions

The surveys were approached in a systematic manner to verify site identity, and to investigate their integrity and condition. This is important information in appreciating the range of contemporary uses, values and impacts of the submerged WWII sites. It forms part of the critical data used to investigate the meanings and complexities of the associated societies which are discussed in Chapters 9 and 10.²¹

The identification of the sites listed in Chapter 7, by Bailey (2000) and Lindemann (1982 and 1990), were corroborated through these site surveys although the JANAC (1947) coordinate information was too vague to be very helpful. While additional primary historical documents testified to further ships being sunk in the lagoon none of these ships were discovered during the surveys. However, the discovery of four additional sites from other sources suggests that more ships could be found inside the lagoon. I was informed of a number of unrecorded aircraft in various localities in the lagoon. The potential number of aircraft lost during the war and the small number of

²¹ Copies of the survey data in addition to this thesis will be forwarded to the Chuuk Historic Preservation Office. James Cook University has a distribution protocol and in addition, a copy will be forwarded to the U.S. National Park Service, Oakland, and the Micronesian Seminar, Pohnpei.

finds so far would suggest that there is considerable potential for research into aircraft, particularly from a social point of view, due to the fact that they may contain human remains. Further work in this area would obviously need to be approached in a sensitive manner, gaining support from Chuukese, Japanese and American families, communities and governments prior to field investigations.

From a diving tourism perspective the submerged WWII sites and associated marine life are potentially unrivalled elsewhere in the world. While human remains are not obvious, they are an attraction for some diving tourists, but not for those who regard the submerged WWII sites as gravesites. It is not a unique conflict—many submerged sites containing human remains are popular diving sites, such as *Yongala* in Australia (Gleeson 2000). Others, such as *USS Arizona* are closed-off to diving (Delgado 1988).

Diver souveniring and dynamite fishing are two other issues that were recorded during the site surveys. The first corrosion survey indicated that some of the ships could start to collapse in 10-15 years which is a concern from the diving tourism viewpoint and environmentally, especially if they contain oil or gasoline and the release is uncontrolled. All of these uses and values underlie the complexities and paradoxes that exist in Chuuk, and which are investigated in more detail in the following chapters.

The terrestrial surveys on Tonoas, and the opportunistic surveys which I implemented on the islands of Weno, Etten and Uman, place the submerged WWII sites in context with the Chuuk World War II landscape. Many other islands in the lagoon contain similar sites. Many have been appropriated into use by Chuukese, such as the former Japanese Navy radio transmitting station on Weno, which took a direct hit by a bomb and is still evident today, and is used as Xavier High School. Others, such as the Air Flotilla 26th Air Headquarters on Etten which was hit by bombs lies abandoned in amongst Chuukese homes, although it was used immediately after the war as a church (Rudolph, Arimichy 2007 pers.comm.). The terrestrial site surveys also place the submerged WWII sites in context with the social history of the war from a Chuukese perspective. The terrestrial sites are associated with suffering and death for many Chuukese and the submerged WWII sites, while not irrelevant to Chuukese, are associated with similar hardships and death to the Japanese. They have been appropriated into a valuable business by some Chuukese, some of whom maintain a relationship with Japanese pilgrims to Chuuk.

Chapter 9: The values and conflicts of the submerged World War II sites

Introduction

As a result of this investigation, a number of site uses and impacts were found which are suggestive of a number of different values and conflicts. This chapter explores in some detail the different values of the submerged WWII sites to Chuukese, Japanese and Americans. It expands on the conflicts associated with these values, setting the scene for their elaboration in Chapter 10.

The research into site values is carried out in context with the heritage discussion examined in Chapter 3. Byrne et al. (2003: 69-74), Greer (1996: 233), Harrington (2004: 63-64), Harvey (2001: 335), McIntyre-Tamwoy (2000: 311), Smith (2006: 307) conclude that heritage is intangible, a cultural and social practice, a practice of memory making, and that it is about values, meanings and identity which can be in association with tangible remains. Turner and Falgout (2002: 106-107) in their work on Pohnpeians remembering World War II, argue that memory is a ‘foundation of personal identity’ and is ‘crucial in collective identity’ in addition to the power of mnemonic systems to evoke remembrance. Following on from Greer’s (1996: 253) association between sites and mnemonic devices, in Chuuk mnemonic devices concerning the war include the military landscape, dances, stories, films and songs that were sung during the war and later recorded onto electronic forms (Poyer et al. 2001: 334-336). But how are the submerged WWII sites valued and how do they fit into war remembrances, cultural practices and identity? This chapter explores these and other issues from a Chuukese, American and Japanese perspective.

Chuukese values of the submerged World War II sites

In a questionnaire I developed and distributed to four staff of Chuuk HPO and five COM students, the importance of the submerged WW II sites in the tourism industry was noted, but they considered cultural practices, folklore and associated sites to be the most significant (see Appendix 2). One of the reasons provided was ‘because some of the things we are still using’, another, ‘because that is what have been there for many generations till today and it is very important to remind us of our heritage and culture’. The traditional cultural practices, sites and stories considered as significant, included dancing, canoe making, weaving, *wuut* (meeting house) making, stories associated with spiritual beings, the turtle cave on Pata, Tonaachaw ghost story, the story of Nimaes

(Udot), and Wicheen petroglyph site. One of the current Chuuk HPO projects centres on weaving and the documentation of this process, from selecting the Pandanus leaf through to carrying out the weaving of different items, including mats, baskets, hats and even mobile phone pouches (Figure 9.1). Some terrestrial World War II sites were named as significant in Chuuk's history, including the prominent Japanese remains of Sapuk lighthouse and Xavier High School, and Mori Koben's memorial on Tonoas (see Figure 4.6). Today the extended Mori family, descendant from the Japanese pioneer in Chuuk, Mori Koben is prominent throughout Chuuk and the FSM. While the submerged WWII sites were seen by the participants (all men, from 18-50 years of age) as important in tourism, one staff member saw them as significant 'because they tell us about the bad time in the history of Chuuk', and with regard to the terrestrial WWII sites they were significant 'because they tell about the hardship our parents went through at that time'. This is an interesting distinction between the two types of World War II sites, the terrestrial sites having more personal, family connections.



Figure 9.1: Chuuk HPO obtained funds to document and disseminate information on local practices such as weaving. Photograph by Bill Jeffery, 2006.

Hezel (1995), King (2006), Lindstrom and White (1990), Parker (1987), Peattie (1988), Poyer et al. (2001), Rainbird (2004), Spennemann (1992), and Turner and Falgout (2002) all express views on how Micronesians greatly suffered and their lives and society were transformed forever from the Japanese war build-up, the war and the subsequent U.S. trusteeship. They also acknowledge that

while war stories, songs, dances and memories are important to individuals and communities, the physical war remains are of less importance, unless useful in an economic or practical manner (Adams et al. 1997: 87; Poyer et al. 2001: 335-336; Spennemann 2006: 14-16). Sites associated with other historic periods, which have played a role in Micronesian transformations, such as the German period, also appear to be of limited value to many Chuukese. Patricia Parker, who spent two years living in Chuuk (1978-79) as part of her doctoral research into *Land Law in Trukese Society, 1850-1980*, concluded:

It is a safe generalization to say that Micronesians as a whole are less interested in their historic properties than in preserving the integrity of their traditional cultural systems. To the extent that historic properties are important to these systems, they are important to Micronesians. Those that do not figure in their traditional systems are not likely to be of great concern, however interesting they may be to archaeologists and other scholars from outside the islands. (1987)

World War II was not of Micronesian making and they were, in most cases, innocent bystanders. This is illustrated in a very poignant comment recorded by Nero (1989: 144) in which a Palauan woman requested from a United Nations inspection of Palau, shortly after the war, that they fight their war somewhere else next time. In comparison, a number of Chuukese particularly those with Japanese ancestry fought for the Japanese throughout SE Asia, China and in Micronesia.

Pacific Islanders have expressed an indifference to, or a reaction against the global hegemonic view of what constitutes underwater cultural heritage as highlighted in a comment made at a *UNESCO World Heritage Convention 1972* meeting of Pacific Island Nations in Vanuatu in 1999 (WHC 1999). During the discussion on another UNESCO convention, the *UNESCO Convention for the Protection of the Underwater Cultural Heritage 2001*, the Pacific Island Nations noted that:

“Protection of Underwater Heritage”, within the Pacific, at the moment seems to refer more often to underwater wrecks from World War II, despite the existence of other underwater sites such as sacred cultural sites existing in many areas of the Pacific. The meeting urged the protection of these sites as well as those on land that may be protected by the World Heritage Convention. (WHC 1999)

The relevance of the *World Heritage Convention* to the Chuuk Lagoon submerged WWII sites is discussed later in this chapter (see also Appendix 1). However it was clearly articulated that Pacific Islanders wanted international conventions to protect as a priority, sites that reflected aspects of their traditional identity, not just in the listing of World War II sites. In relation to the *Convention for the Protection of the Underwater Cultural Heritage* I have examined the relevance of this convention to the Chuuk Lagoon submerged WWII sites in some detail (Jeffery 2006a; Appendix

5). The submerged WWII sites do not meet the criteria for inclusion in this convention as they have not been submerged for more than 100 years, although it is likely many submerged traditional sites would meet the criteria.

Many Chuukese are aware that the war was a major watershed in their lives, causing ‘a loss of wealth and a change in the governing class’ and eventually its amalgamation with other Pacific Islanders and independence from colonial rulers (Useem cited in Poyer et al. 2001: 330). What was, and still is valued in Chuukese society are traditional cultural practices, the intangible aspects of culture and heritage, and the stories that give meaning to being Chuukese and part of a lineage or clan. Following the war, these cultural practices were blended with a desire for a more comfortable economic future, using their strategic advantage in independence negotiations (Poyer et al. 2001: 348). Poyer et al. (2004) has concluded that the unique local values have provided Chuukese, as with other Micronesians, with a unique local identity. This identity is based on ‘what makes people alike’ and their ‘behaviour’, being a combination of the core values of ‘people, land, kinship and community’ and the influences of, and responses to colonialism for that locality (Poyer et al. 2004: 316). While Poyer et al. (2004: 320) has concluded Micronesians have a global identity linked with their strategic position in global geopolitics, a national identity (such as from the FSM) is not evident.

An interesting aspect that became apparent in the ethnographic surveys implemented during the documentation of terrestrial and submerged WWII sites was that terrestrial sites appeared to be valued differently to the submerged WWII sites. When asked about the value of the submerged WWII sites, all Chuukese participants replied ‘tourism’, and a small number referred to historic value through association with the commencement of the bombing in Chuuk. When asked about the value of the terrestrial sites it was the reverse, they were seen as representing a time of hardship and suffering and provided a sense of place to some Chuukese. Today many have been appropriated and used in a practical manner by Chuukese land-owners, but many, where that may not have a practical use, have been left abandoned allowing the jungle to consume them (Poyer et al. 2001:336) (Figure 9.2). This could be also be as a result of land owners not having the finances to utilize the remains or it has been suggested, that some Chuukese are keen to forget this painful period in their history including some of the sites. Rainbird (2001: 46-47) in his study of views of a Chuukese-Japanese site and a Japanese World War II memorial on Fefan, one of the lagoon’s major islands, the landscape surrounding the site and the memorial has been ignored by Chuukese. He concluded that ‘a landscape with its associated remembrances may be intensified by its abandonment, by its

discontinuity in its use. In fact, the abandoned landscape may be as much a memorial as is the structure erected for the purpose by the Japanese' Rainbird (2001: 46-47). During this survey of the terrestrial sites on Tonoas a Chuukese emotional attachment to the sites was apparent as well as a lack of desire to change their *status quo* through site conservation and restoration. However, some have an interest in promoting the sites for tourism because of the economic benefit. Some land owners and their families today simple want to maintain their rights to the land and the food that grows on it, and given the intensity in guarding traditional land ownership and the competitive and disruptive nature of tourism, do not or cannot promote tourist activities.



*Figure 9.2: A small Japanese military building reclaimed on Etten
(Photograph by Bill Jeffery, 2004).*

The ships and aircraft sunk in the lagoon were manned by Japanese military personnel. Very few Chuukese were allowed on the ships and subsequently few, if any died when they were bombed. The commencement of the bombing in Chuuk on 17 February 1944, the date which many ships sunk, is remembered by some Chuukese, as the day the war came to Chuuk (Poyer et al. 2001: 139-144), and by others as when the Japanese Army arrived in January 1944, forcing many Chuukese out of their homes (Poyer et al. 2001: 83). Chuukese war memories primarily relate to how Chuukese were impacted by the bombing or by the behaviour of the Japanese army. There does not appear to be any emotional attachment to the ships through family losses, although there were most likely Japanese men who died, who had married Chuukese women and had children. During the fieldwork in Chuuk, I spoke to a number of younger Chuukese men who had Japanese ancestry from the war time but had limited interest in, or knowledge about their Japanese parents. This could in part be associated with the repatriation of all Japanese and Okinawan nationals from Chuuk after the war (Peattie 1988: 308-310). All of the Chuukese men

knew of the shipwrecks and the terrestrial military remains, from a tourism or fishing perspective, but expressed little interest in them as historic sites, preferring to talk about tuna fishing, folklore or traditional cultural sites. It is also possible the disinterest in the WWII sites is related to some not wanting to talk about what is considered a painful subject.

However, not all young Chuukese men are disinterested or ambivalent about the submerged WWII sites. Clark Graham conducted a number of high school classes in maritime archaeology and marine biology, during which time the group recorded a number of submerged WWII sites. Graham's school, Xavier High School has an interesting mural in its entrance, depicting scenes of World War II in Chuuk, and the collection of submerged WWII site artefacts discussed in Chapter 8 can be seen in its upstairs foyer, indicative of some school interest in Chuuk's war history and the part played by ships (Figure 9.3).



Figure 9.3: Part of the wall mural at Xavier High School, depicting the war in Chuuk (Photograph by Bill Jeffery, 2001).

Chuuk legislation protecting submerged World War II sites

In July 1971, the Chuuk District Legislature approved an Act to protect all the Japanese ships and aircraft sunk before December 1945 and now lying in Chuuk Lagoon and for them to be known as the “Truk Lagoon District Monument”, although no legislation was introduced to protect the Japanese terrestrial WWII sites (see Appendix 5 for details). A number of issues were happening at that time, which could have collectively or in isolation, precipitated this move. Jacques Cousteau highlighted some of the attributes of the sites through his 1969 visit, film and recovery of many

artefacts, and the dive tourism industry was just commencing. In April 1969 and July 1971, the USA and Japan settled on an *ex-gratia* payment of \$10,000,000 to Micronesia as compensation for war damages as part of the *Micronesian Claims Act of 1971*, an issue that is discussed in detail in Chapter 10 (United States Congress (U.S.C) 1972). Also in 1969, there was confirmation of an agreement between the USA and Japan to the effect that Japan and its nationals for a period of three years could salvage and dispose of the shipwrecks in the TTPI (U.S.C 1970: 2667-2668). Late in 1971 a group of six divers discovered the remains of the Japanese submarine *I-169*, in which about 80 crew drowned. During 1973, many human remains were recovered by a Japanese salvage operation, along with numerous artefacts (Bailey 2000: 359; Hezel and Graham 1997: 32). In world context, 1971 is an advance of many other submerged site protection laws, although the U.S. had already enacted the *Historic Sites Act of 1935* and the *National Historic Preservation Act of 1966*.¹

It is unknown if the commencement of the dive tourism industry and Cousteau's actions precipitated the protective legislation, or if it was a reaction by the Micronesians and / or the U.S. administrators to Japanese interests in their shipwrecks and the renewed economic involvement in Micronesia by Japan.² The salvage of World War II metals was at that time the second most important industry in Micronesia involving both terrestrial and sea sites, but no legislation was enacted to protect the terrestrial WWII war sites (Kluge 1968: 15). I collected oral histories about Chinese salvors and a man named 'Domingo' from Palau salvaging metals from terrestrial and underwater sites from the 1950s and where, in the case of the Chinese salvagers, they bought the metal from Chuukese (Misa, Tong 2001 pers.comm.). It is possible that the renewed interest by the Japanese in the submerged WWII sites resulted in a show of jurisdiction by the Chuukese (perhaps being pushed by the U.S. administrators) that was a major factor in enacting protective legislation, and to a lesser extent the control of underwater salvage carried out by foreigners and the restriction of the activities of diving tourists. It was not until 1980 that the legislation was amended to include specific provisions aimed at controlling and enhancing the activities of diving tourists when it included the need for a dive guide and the \$3 permit fee.

Economic value of the submerged World War II sites

Some Chuukese appropriated and transformed the former Japanese shipwrecks and aircraft into something practical for them—a tourism industry and one which the Chuuk government encouraged

¹ Australia for instance had some of the first shipwreck legislation but only at a State level, being in Western Australia in 1964 (Henderson 1986: 72).

² From 1965, through the formation of the Congress of Micronesia, Micronesians were 'exercising broad legislative authority, subject to veto by the Administering Authority' (OPS 1984).

(Figure 9.4). Unlike a tourism industry on the terrestrial World War II sites, where there are potential land ownership conflicts and competition, the submerged WWII sites, being located in deep water in the lagoon and in most cases away from submerged reefs surrounding the islands, have no Chuukese competing ownership issues. However, the issue of ownership of the fabric of the ships and aircraft is problematic and has caused some conflict about the use of the sites.

The U.S. administrators in Chuuk encouraged Chuukese into developing industries that would help in their economic development and where it was stressed that this was an ‘advancement to all other fields of social activity’ (Hanlon 1998: 53). It was with American entrepreneurial help and encouragement in the early 1970s that the tourism industry commenced. The promotion of the area by well known underwater film maker, Al Giddings and a visit to Chuuk by John Kennedy Jnr. led to Kimiuo Aisek, Dive Master with the Chuuk Department of Marine Resources to establish the first dive shop in Chuuk in 1973 to ‘make lots of money taking divers out to the shipwrecks’.³



Figure 9.4: Salvaged Japanese gun on the boom gate entrance to the Blue Lagoon Resort (Photograph by Bill Jeffery, 2001).

Diving tourism

The two land-based dive tour companies in Chuuk, the *Blue Lagoon* and the *Truk Stop* have dive shops, hotels and accommodation, and both are fully or partly locally owned.⁴ The *Blue Lagoon*

³ This was the type of encouragement from visiting American divers. For further information on the commencement of the dive tourism industry see the Blue Lagoon Dive Shop website <http://www.truk-lagoon-dive.com/history.htm> accessed 15 May 2003.

⁴ The *Blue Lagoon* Resort was formerly known as the Continental Resort as Continental Airlines had an interest and could still today. The Dive Shop is part-owned by Gradvin Aisek, Kimiuo’s son. The *Truk Stop* Hotel is owned by a Chuukese Kiki Stinnet, wife of the Director of Public Safety, American Bill Stinnet.

was initiated by Kimiuo Aisek in 1973 and the associated hotel is the largest and most popular for visiting divers. There can be a number of reasons for recreational divers to visit Chuuk. To some, the relationship of the historic material and the environment is an attraction, to others the environment helps to isolate the observer and to gain a more intense experience. Submerged WWII sites, particularly war sites containing human remains can provide a powerful and lasting experience about war and suffering. To others, the lure to take a souvenir as a reminder is a strong force, while for many divers simply taking photographs of the range of natural and cultural diversity in the warm, clear and deep waters of the lagoon waters is the attraction. Many people from around the world visit Chuuk as part of an organized group, they arrive at the international airport on Weno dressed in the 'I dived Truk' t-shirt, and are whisked off by the live-aboard boat operators, not to set foot on land until they leave a week later, or to spend a similar time cocooned at the *Blue Lagoon* or *Truk Stop*.

Using a questionnaire I solicited comments from tourist divers about the value of the submerged WWII sites, and management approaches that they observed, and those that they would recommend (see Appendix 3). I obtained many comments about the value of the sites, primarily in regard to the fabric of the ships and the many artefacts remaining, rather than comments about the loss of Japanese lives or the marine life. Chuuk (or Truk) is known world wide as the place for wreck-diving, and an adventurous new diver stated, 'I had heard a lot about the shipwrecks and must dive Truk'. A number of comments were made about the need for more effective management in controlling the illegal recovery of artefacts, although two responses from divers from the U.K. indicated that they thought the wrecks were being well managed as 'artefacts have not been recovered'. In the U.K. where effective management of the potentially one million shipwrecks is inadequate, and many well-dived sites have been stripped of portable artefacts, this statement appears to indicate that there are still relatively many artefacts *in situ* in Chuuk.

Tourist statistics

Tourism in Chuuk grew to a peak of 9,834 in 1996, recorded as tourists arriving by air and sea⁵ and which represented 66% of all tourists arriving in the FSM.⁶ The industry is greatly promoted by the Chuuk Visitors' Bureau and publicly acknowledged (see Figure 9.5). It is considered that many of the tourists are divers although and not those arriving for a day on the large cruise boats, thought to

⁵ These figures were obtained from the Chuuk Visitors' Bureau in 2004 and it was reported their source was the FSM National Department of Immigration.

⁶ From www.spc.int/prism/Country/FM/stats/publications/Census_Survey/2000_Census/Chuuk accessed 9 May 2007, and which stated the source was the FSM Statistics Division

number about 1,000-1,500 from 2-3 cruise boats per year. Figures obtained from the Chuuk Visitors' Bureau for 1999, 2000, 2001 and 2002 were compared to figures (air arrivals only) obtained directly from the FSM Department of Immigration and shown in Table 9.1.

<i>Year</i>	<i>Number of tourist arrivals Source: Chuuk Visitors' Bureau</i>	<i>Number of tourist arrivals Source: FSM Department of Immigration</i>
1999	5400	2850
2000	4843	2770
2001	4047	3167
2002	3542	Not obtained

Table 9.1: Comparison of Chuuk tourist arrivals, 1999-2002



Figure 9.5: Chuuk vehicle number plate (Photograph by Bill Jeffery, 2006).

The larger numbers of tourists recorded by the Chuuk Visitors' Bureau are most likely to include cruise ship arrivals or they may be elevated for other reasons. I was more interested in restricting my research to divers, with the majority flying in or arriving on smaller diving expedition vessels. Although there is some conjecture about how many tourists visit Chuuk for the sole purpose of diving the shipwrecks, what is clear is that the overall number of tourists has dropped from 9,834 in 1996 to 3,542 in 2002 and there is a swing toward a greater number of Japanese tourists visiting Chuuk. In 1996, 46% were from the U.S. and 22% from Japan, in 2001, 55% were from the U.S. and 24% from Japan, and in 2002, 40% were from the USA and 42% from Japan (Figure 9.6).⁷ The 2002 figure for Chuuk represented only 25% of the total FSM tourism—down from 66% in 1996.⁸ What is also clear is that the revenue gained from tourists by the airline, the commercial diving

⁷ This was possibly as a result of the 11 September 2001 attack in New York.

⁸ Same source as in note 13.

operators, hotels and restaurants is a multi-million dollar industry but possibly a reduced one today, although this is hard to quantify without knowing the pricing structures for the various periods. The 1971 Chuuk legislation designed to protect the Japanese shipwrecks and aircraft was amended in 1980 to make a provision where divers needed to pay a \$3 annual fee to dive the submerged WWII sites. In 2000 the fee was increased to \$30. This equates to the government being financially better off today, even with a smaller number of diving tourists.

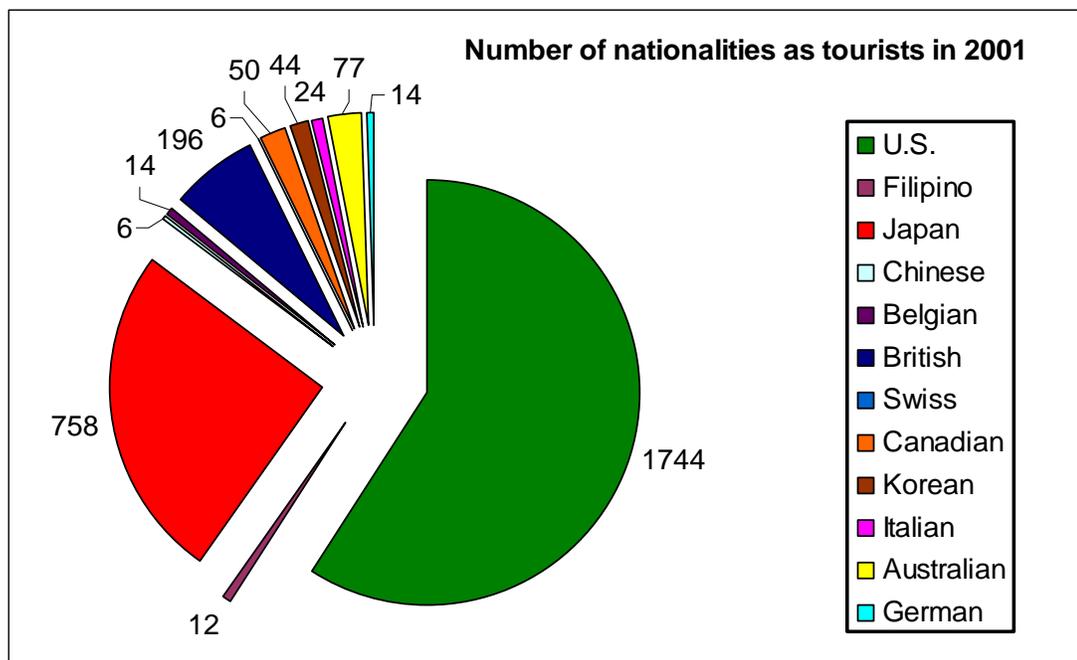


Figure 9.6: The different tourist nationalities in Chuuk in 2001.

Dynamite fishing

Other economic activities associated with the submerged WWII sites include dynamite fishing and artefact recovery. With 30% of Chuukese falling below the poverty line, earning less than US \$768 per annum (Zuñiga 2004: 1), the attraction to earn relatively substantial amounts of money through dynamite fishing and recovery of artefacts is great. Both are illegal activities. Dynamite fishing is a very dangerous, potentially fatal activity but to some the economic benefits can outweigh the potential dangers. Dynamite fishing is not a recent phenomenon, having been introduced by the Japanese prior to the war with devastating effect during their period of occupation (Mitchell 1967: 68). Some Japanese gave Chuukese dynamite, then grenades, to carry out their own dynamite fishing, although it was illegal (Poyer et al. 2001: 96). However, the salvage of munitions from the shipwrecks to make into small bombs to use in fishing is a more recent phenomenon. Whole boatloads of fish can be collected in a very short time and they can be sold at local markets

(illegally) for a good profit (Mailo, Anerit 2002 pers.comm.). Like the barrier reef, the submerged WWII sites are the location of many edible fish, so dynamite bombs are thrown onto them, killing all the fish in their sphere of influence.

Artefact recovery

The recovery of artefacts from some of the shipwrecks provides another economic benefit to some Chuukese, particularly the dive guides and their families. Hundreds of dollars can be obtained through selling porcelain dinner services, brass portholes, glassware, crew's personal items and even thousands of dollars for a ship's bell. It is reported that while some dive guides have entered into this activity, some have not. With over 50 shipwrecks lying in the lagoon and many untouched before diving tourism commenced in the 1970s, there existed a considerable amount of portable, immensely sought after war memorabilia. The early dive tourists into Chuuk would have seen this from Cousteau's film of his 1969 expedition when he recovered many artefacts. While initially implemented on a piecemeal basis under pressure from visiting divers, Chuukese 'dive guides [are now] approached by businesses to supply a steady supply of souvenirs for sale in the US and other countries' (Hezel and Graham 1997: 33). A website advertises the sale of Japanese war material from Chuuk and it is stated to be from terrestrial WWII sites, and although not illegal in Chuuk due to there being no pertinent legislation, it is illegal from FSM National government legislation.⁹ Although recovery of artefacts from the submerged WWII sites without a permit has been an illegal activity since 1971, with the threat of imprisonment, it has continued through to the present day. Given the continuation of this activity in Chuuk and the development of sophisticated deep diving equipment, I was informed in 2004 of a new breed of diving tourist, the 'tech diver' in search of souvenirs at 60 and 70 metres now visits Chuuk.

U.S. values of the submerged World War II sites

U.S. groups and individuals that value the Chuuk Lagoon submerged WWII sites include government, heritage professionals, archaeologists, historians, war veterans, tourist operators, recreational divers, and commercial salvors. Sections of the sport diver community, commercial salvors, and some archaeologists are known to value submerged WWII sites for the sale of artefacts, while the CRM, academic and popular historical approaches are found with the other groups. The general U.S. community is made aware of the different values of submerged WWII sites through a

⁹ Artefacts from Japanese World War II sites in Chuuk are sold and advertised on this website <http://nopukob.com/products/> accessed 17 June 2005.

number of publicity opportunities, unlike those in Chuuk where publicity is limited and partly controlled.¹⁰

I commence this discussion on U.S. values by expanding on some background on the U.S.'s involvement in maritime archaeology and underwater cultural heritage management, some of which I have alluded to in Chapter 3. During the 1960s and 1970s, the gold laden 17th century Spanish shipwrecks off Florida, demonstrated the wealth that could be obtained from shipwrecks. Admiralty Law, a system operating in the U.S. and not unlike the U.K. *Merchant Shipping Act 1995*, and Australia's *Navigation Act 1912*, in which ships could be salvaged and the material privately owned and sold, has encouraged commercial salvaging. Also being implemented during the 1960s and 1970s were a number of U.S. state sponsored archaeological projects as well as George Bass's work in the Mediterranean through the Institute of Nautical Archaeology, providing a different perspective on the value of submerged WWII sites (Bass 1972). In 1980, the U.S. NPS established the Submerged Cultural Resources Unit to implement an underwater archaeology program, although NPS had been involved in shipwreck investigations since the 1930s (Delgado 1997: 442). In 1987, the Federal government enacted the *Abandoned Shipwrecks Act 1988* which asserted 'title to the majority of abandoned shipwrecks located within three nautical miles of the US coast-line or in the internal navigable waters of the United States' and 'then transferred its title to most of those shipwrecks to the respective States to manage' (Aubry 1991: 19). The federal government retained an interest in sites on federal land and U.S. warships. Additional federal legislation for sites over 100 years old, the *National Historic Preservation Act 1966*, and other Acts can be used to manage shipwrecks. Individual states have also enacted legislation to protect shipwrecks in their jurisdictions.

U.S. legislation protecting submerged World War II sites

In September 1976, the U.S. government placed the 'Truk Lagoon Underwater Fleet, Truk Atoll' on the National Register of Historic Places pursuant to the *National Historic Preservation Act of 1966* administered by the U.S. Department of Interior. In 1985, the 'Truk Lagoon Underwater Fleet, Truk Atoll' was nominated for National Historic Landmark (NHL) designation (United States National Park Service (U.S. NPS 1985). The significance assessment contained in the nomination focussed on the historic significance of the Japanese shipwrecks and aircraft, their destruction by the U.S. Navy's carrier fleet and aircraft, and how the 'legendary invulnerable Truk' was destroyed,

¹⁰ There is no newspaper in Chuuk and the local radio station is operated, and the content vetted by the Chuuk Government.

opening a way into the Marianas from where bombing of the Japanese homeland could take place (U.S. NPS 1985). Also noted is the fact that it was during 17 and 18 February 1944 attacks, that the first ever night-time bombing raids were implemented from aircraft carriers (Morison 1975: 331). Morison, the official historian for the US Navy, and who compiled a 15 volume history of the navy during World War II wrote: ‘The strike on Truk demonstrated a virtual revolution in naval warfare; the aircraft carrier emerged as the capital ship of the future, with unlimited potentialities’ (Morison 1975: 329-332). Surely though, the revolution was in December 1941 when the Japanese attacked Pearl Harbour using a similar strategy!

National Historic Landmark (NHL) designation

The NHL nomination stated, ‘the “underwater fleet” at Truk, festooned with an infinite variety of marine life and containing the honoured remains of the Japanese warriors, is one of the world’s underwater wonders’, a ‘Mecca for divers worldwide’ (U.S. NPS 1985). What is surprising is that the nomination only covers Japanese military remains, no American, although 26 U.S. Navy and nine U.S. Air force aircraft are potentially lying in lagoon waters with only one having been located (see Figure 8.45). Perhaps this is another indicator that Chuukese and U.S. administrators were targeting Japanese interests. These omissions and the meanings that may be extracted are further investigated in Chapter 10. The NHL nomination regarded the ‘owners of the property’, presumably the Japanese shipwrecks and aircraft as the ‘Government of the Federated States of Micronesia’, another aspect that is further investigated in Chapter 10.

The NHL designation was implemented in 1986 as one of 2,300 NHLs (January 2006), and during the review process for this nomination a ‘master plan’ was developed to see if it would also meet the criteria for designation as an Historical Park within the U.S. NPS system.¹¹ Various aspects of this study were discussed in Chapter 3, and in terms of the values of the submerged WWII sites documented in this report, they were considered to be ‘utterly unique’ (U.S. NPS 1989: 61). No explanation is provided in support of this statement and it is curious given there are several other examples of Japanese World War II shipwrecks lying intact in tropical waters at places such as Rabaul, Guadalcanal, Palau, but perhaps not with the same integrity or diversity of marine life. Apart from supporting the ‘national significance’ of the submerged WWII sites, no further comment on their value is made in the report.

¹¹ From a memorandum from NPS Director, Pacific Area to Regional Director, Western Region, Subject: Feasibility Study of Additional WWII Sites, Dated April 14, 1986.

The *National Historic Preservation Act of 1966* which was amended in 1974 so as to include all of the former TTPI in its area of jurisdiction, uses certain criteria for evaluating whether a district, site, building, structure or object is eligible for listing on the National Register. This includes those places associated with events and people, that embody distinctive characteristics (methods of construction), that may yield important prehistoric and historic information, and those that have traditional cultural values. The latter was adopted as a result of the influence of Tom King and Pat Parker (King 2006: 514). The designation of a NHL is made when a place possesses exceptional values in the context of a major thematic study, and themes include *War in the Pacific* (as in this case), *Warships associated with World War II in the Pacific* (which contains 25 American ships and one foreign vessel (German U-boat), *Contact with the Indians*, and *Clashes of Cultures—Indian War Trails*, but nothing on other indigenous societies or from a different perspective.¹² The themes themselves are evidence of U.S. values and reveal the dominant Euro-American perspective.

The U.S. government through the Department of Interior funds projects and staff employed with the Chuuk HPO to assist in the management of the submerged WWII sites. In 2002, the submerged WWII sites were given a ‘threatened’ status by U.S. NPS because of the ‘significant deterioration, vandalism and looting’.¹³ The other U.S. NPS agency that has been involved with the Chuuk Lagoon submerged WWII sites is the Submerged Resources Unit (SRU), and their work in Micronesia and in Chuuk was discussed in Chapter 3, although by comparison their Chuuk work is very limited, even given the statement: ‘Chuuk Lagoon is probably the most famous site for shipwrecks among sport divers in Micronesia’. (Carrell 1991: 460). The report does not provide an assessment of the value or significance of the submerged WWII sites in Chuuk Lagoon or elsewhere in Micronesia, preferring to leave this to the ‘resource manager to evaluate both site significance and integrity’ (Carrell 1991: 328).

U.S. sovereignty of submerged military sites

In January 2004, the President of the U.S. formerly stated their policy on submerged military craft (United States Department of State (U.S. DS 2004: 5647-5648). In October 2004, the *FY 2005 National Defense Authorization Act*, Title XIV of the Act (Public Law Number 108-375) was signed by the U.S. President which reaffirmed title in their sunken military craft, wherever and whenever lost. It clearly stated the value of these sites, being the ‘final resting places of Americans who died defending our country’ and containing ‘objects of a sensitive archaeological or historical

¹² U.S. themes can be found at <http://www.cr.nps.gov/nhl/themes> accessed 29 March 2007.

¹³ For further information see www.tps.cr.nps.gov/nhl/ accessed 30 January 2007

nature' and should be protected against 'looters, treasure-hunters, and others who may cause damage' (United States Navy (U.S. N) 2005). The U.S. Navy has a 'Naval Historical Centre Underwater Archaeology Branch' that has a responsibility for enforcing this legislation and implementing a program on submerged navy sites.

U.S. commercial salvage interests in the submerged World War II sites

While there is treasure hunting on the Chuuk submerged WWII sites, it is not in the form that was been carried out on the 17th century Spanish galleon *Nuestra Señora de Atocha* off Florida, or some of the other commercial salvage projects around the world, such as on the 19th century trading vessel *Tek Sing* which carried 350,000 pieces of Chinese porcelain, valued at many millions of dollars and sold globally on the internet.¹⁴ Current knowledge suggests that the treasure hunting in Chuuk is in the form of opportunistic and sometimes organized souveniring for private keep sakes for tourist divers. This does not include all divers and is not specific to American divers. In a series of interviews with tourist divers, some assisted with the completion of a questionnaire, all knew of the legislation protecting the sites and the prohibition in recovering artefacts (see Appendix 3 for the questionnaire). None admitted to recovering artefacts, preferring to cast blame on Chuukese dive guides.

U.S. involvement in the Chuuk diving industry

While a number of U.S. citizens helped some Chuukese to establish a dive tourism industry, there are also U.S. companies directly involved in the tourism industry in Chuuk, including Continental Airlines. The two live-aboard boats in Chuuk, *Thorfin* and *Odyssey* have U.S. interests and similar U.S. interests were involved in the *Blue Lagoon*, but it is not known if any still exists. The live-aboard boats would appear to be involved in a viable business, although the departure of the *Truk Aggressor* in 2005, suggests a down-turn in tourism, which the tourism figures do show. My contact with the live-aboard boats was primarily with the skipper of the *Truk Aggressor*, Niall Lawlor, who informed me in 2004, that between the *Truk Aggressor* and *Odyssey*, they had spent about US\$150,000 on installing moorings adjacent to some of the shipwrecks. While it could be expected for them to contribute some costs for moorings, they together with the *Blue Lagoon* dive shop appear to have been the only contributors and not the Chuuk government.

¹⁴ Further information can be found at <http://www.teksing.com/> Accessed 3 November 2007.

U.S. war veterans

It is not known how many, if any U.S. war veterans visit Chuuk. When I initiated this study in 2001, I joined an email chat group associated with World War II, in the hope of discussing the war in Chuuk with U.S. war veterans, but I received little feedback. While this activity has developed considerably since then, I have not pursued it, but it could be a very useful link to U.S. war veterans, particularly those that served in Chuuk after the war.

Unlike the Japanese war veterans, I did not meet any U.S. war veterans in Chuuk, which is not to say they do not visit, but they are not as common. U.S. war veterans as in the case of the Japanese in Chuuk and the Australians in Gallipoli for instance, remember and commemorate those battles where many of their nationals were lost and the battlegrounds of Guadalcanal, Wake, Saipan, Peleliu, Guam, Iwo Jima, Okinawa, and at Pearl Harbour (USS *Arizona*) fall into this category. A small number of U.S. aircrew were lost during the bombing of Chuuk but no amphibious invasion was launched and the bypassing of Chuuk in 1944 meant that, apart from a small number of U.S. prisoners of war, there was no U.S. contact until after the war—as administrators.

U.S. publications

The majority of the published literature on the submerged WWII sites is from U.S. authors and ranges from various U.S. military articles and publications (Morison 1975; *Naval Aviation News*, U.S. SBS 1947; Vogel 1948), which are historical accounts that refer to the attack on the legendary, impregnable Chuuk as a payback for Pearl Harbor. There are also popular texts such as Lindemann (1982, 1990), Stewart (1989) and Bailey (2000) which are part historical, part contemporary including many underwater site descriptions and inclusive of some Chuukese and Japanese site associations, but essentially aimed at the diving, war tourist. There have also been a number of documentary films and dive magazine articles produced, and currently there exist a plethora of internet websites extolling the diving tourism value of the sites. The other type of literature comes from Carrell (1991), Lenihan (1992), U.S. National Park Service (U.S.NPS 1985, 1989) and Hezel and Graham (1997), which discuss management and conservation practices in context with Chuuk and U.S. legislation. What is lacking in all of these publications is anything more than a page or two about the significance of the sites from a Chuukese or Japanese perspective. There have been no academic or scientific publications on any aspect of the submerged military sites. Earle and Giddings (1976) provide a popular foray into this through the *National Geographic* magazine which is a great front-end to some scientific analysis, but none has been produced. This issue is raised as part of the discussion on the value of the sites, and the lack of publications other than popular books

and magazine articles from a U.S. perspective, as it is interesting to wonder why this has not been done on the 'world's greatest wreck dives'.

Japanese values of the submerged World War II sites

In investigating Japanese values of the Chuuk submerged WWII sites, some brief background is considered appropriate. Maritime archaeological and underwater cultural heritage programs in Japan are of a piece-meal nature, implemented by academic and avocational researchers, with no government sponsored programs. An investigation of the Japanese World War II battleship *Yamato* has been conducted by a French team, but little is known about its aims or outcomes. In general, submerged WWII sites are not the focus of Japanese investigations, being a sensitive issue with war veterans, and are regarded and respected as war graves, although there are some private salvage companies exploring some World War II sites (Sasaki, Randall 2007 pers.comm.). Submerged site investigations that have been implemented in Japan, include Kublai Khan's 13th century fleet (Mozai 1982), and the *Kaiyo Maru*, 'a 2,590 ton warrior ship wrecked of Hokkaido in 1868' (Araki n.d.). More recently the avocational group, Asian Research Institute in Underwater Archaeology (ARIUA) has been focussing its research on medieval shipbuilding technology of East Asia.¹⁵

In general, while tangible heritage is valued in Japan, it is the associated intangible heritage values that are prominent, which is highlighted in the case of the continual rebuilding of the 1,200 year old traditional Shinto shrine, Ise Jingu. From a decree of the Empress of Japan that the shrine be renewed every 20 years, including the building, furniture and decorations: 'The Ise shrine is not a tangible cultural property but a unique example of a living tradition of a building whose value is not defined by the criteria of the material' (Tokoro cited in Munjeri 2004: 15; Yoshida 2004). Other shrines are repaired with modern materials as needed and archaeological sites are used in the reconstruction of ancient buildings (Sasaki, Taizo 2006 pers.comm.).

Japanese war veterans

Japanese war veterans pay their respects to those lost at Chuuk through commemorative ceremonies every 17 February, accompanied by wreath laying ceremonies on some of the submerged WWII sites (Figure 9.7). I witnessed two of the ceremonies but did not intrude and interview any of the participants at this sensitive and emotional time. They are Buddhist ceremonies which in general are 'concerned with life after death and the salvation of the individual' (Kumagai 1996: 9). Small groups of Japanese veterans and some of the next generations also visit Chuuk throughout the year,

¹⁵ www.h3.dion.ne.jp/~uwarchae/english-index.htm accessed 9 May 2007.

coming to remember, and to pay their respects to their fore fathers, where there is a strong ‘sense of place’. This is the most obvious and lasting value associated with all the Japanese war remains (terrestrial and submerged) in Chuuk and elsewhere.

Retrieving information regarding different Japanese communities’ values about the Japanese military sites in Chuuk (terrestrial and submerged) was difficult, which is partly associated with my inability to read and write Japanese and also the reluctance of some Japanese to discuss the war. I communicated with Professor Intoh Michiko of the National Museum of Ethnology in Osaka, Japan about contacting and interviewing Japanese war veterans, being referred to her by Fran Hezel. She thought I might struggle to find war veterans, given their age and the fact that ‘some veterans do not want to talk or to remember their experiences during the war’ (Intoh, Michiko 2004 pers.comm.). She referred me to some people in Chuuk who I approached and they referred me to Joshua Suka, who I had worked with on the survey of Tonoas. Many Japanese that visit Chuuk today ask for Joshua to show them around and to gain information about their countrymen in Chuuk.



Figure 9.7: Japanese Buddhist ceremony remembering those killed at Chuuk (Photograph by Bill Jeffery, 2004).

Through Mohri Yachiyo, a Japanese national studying a Masters in Social Sciences at James Cook University, I was able to obtain an interview with a war veteran in Japan. Yachiyo had found that a number of soldiers / naval crew came from Sasebo, Nagasaki Prefecture and thought she might find some Chuuk veterans willing to talk. In preparation, I emailed Sasebo City Hall and introduced myself and Yachiyo, explaining the aims of my research, and I asked if they could assist in locating war veterans willing to talk. Yachiyo only found one veteran (Mr. Fujiie, Gun-Onn Union vice

president), who was prepared to discuss the war in Chuuk and the associated value of the submerged WWII sites. Mr. Fujiie served as a Navy 2nd chief petty engine officer. He was one of four or five survivors from a crew of 300 who were lost as a result of U.S. aircraft sinking their ship off Palau in May 1942. He then spent a week in Chuuk before returning to Japan then another period of action in Rabaul. He considered the battle at Chuuk was pivotal for both the Japanese (as a major defensive base) and the U.S. military (as victory would allow them access to Palau). He did not agree with tourist diving on the submerged WWII sites, and considered that there was still the need for 'end of war processes', such as the recovery of personal effects and human remains, the 'holding of services, consoling of souls and the need to promote recovery'.¹⁶ He believed the submerged WWII sites have value in interpreting the futile and tragic nature of war for the benefit of younger Japanese so similar things do not happen in the future. This same sentiment was also expressed by the Japanese coordinator of a Japanese Environmental Education Program (JEEP) on the small island of Fanannon located in the lagoon. Yachiyo heard from only one other veteran (Japanese army), who was not prepared to talk to her. When asked about Chuuk, 'he did not show a good reaction' and Yachiyo thought that either he did not want to share his personal memories, or that because the army was hit hard in Chuuk, it was too painful an experience to discuss (Mohri, Yachiyo 2004 pers.comm.). I respected his decision and I also did not press Yachiyo for any further interviews. I had witnessed the Japanese commemorative ceremonies in Chuuk in 2002 and 2004 and I was an associate for the 2002 documentary film *Shipwreck Detectives: Pacific Graveyard* in Chuuk produced by Prospero Productions in which some Japanese nationals were interviewed and who all gave similar painful stories about the loss of their comrades.¹⁷

Japanese publications

Yachiyo provided much useful information and translation services during my research, including a brief summary of a recent Japanese publication on the Chuuk submerged WWII sites by Yoshimura Tomoyuki.¹⁸ A review of the book stated: 'A diver's report from his own observation and pictures of sorrowful soldiers' coffins sleeping in the deep sea of Truk atoll, including the survivors and the

¹⁶ 'In our Buddhist thought, unless cremating those that die, their spirits lose their way to nirvana so they would be wondering around forever' (Mohri, Yachiyo 2004 pers.comm.).

¹⁷ Australian film company, *Prospero Productions* made a documentary film on essentially my work in Chuuk in 2002 and which has been played on Australian television and the National Geographic pay television channel since 2004 www.prospero.com.au accessed 14 February 2006

¹⁸ Tomoyuki's book of an unknown date is titled, 'The Big Air Raid in Truk: Tragedy of a Combined Fleet anchored in port, observed from underwater pictures'. Tomoyuki has been credited with locating in Chuuk Lagoon, the remains of the ships, *Oite* and *Fumitsuki* in 1986 and 1987 respectively, www.combinedfleet.com/atully08.htm accessed 13 January 2007

bereaved giving evidences' (Mohri, Yachiyo 2005 pers.comm.). I communicated with Tomoyuki, regarding my wish to obtain further details about his book and war veteran, but with limited success due to language difficulties. Bailey (2000: 403) acknowledges Tomoyuki's search and finding of the *Oite* in 1986, and in obtaining 'survivors' accounts' of its sinking. My inability to communicate with Tomoyuki and other Japanese nationals, and in search of other publications, was a significant barrier in effectively pursuing and understanding more about Japanese values of the submerged WWII sites. It is a sensitive but potentially rewarding topic for a Japanese researcher.

Japanese sovereignty of submerged military sites

The Japanese government's view on the value of submerged WWII sites can be found in the January 2004 U.S. Public Notice along with the views of the USA, France, Germany, the Russian Federation, Spain and the United Kingdom (U.S. DS 2004: 5647). Japan is explicit about the value of their vessels and aircraft as 'maritime graves'. As a result of finding the submarine I-169 in 1971, Japanese divers recovered many of those killed aboard and there have been other occasions where Japanese groups have recovered human remains. In the 2004 U.S. Public Notice, Japan did not refer to other remains, such as a vessel's cargo as having any archaeological or historical value, as did the USA, France and Spain.

Japanese tourism

Japanese tourist divers make the journey to Chuuk and some dive the shipwrecks although what attracts them is generally the flora and fauna, spending most of the time photographing fish, and not noticing the shipwreck fabric. Many Japanese diving tourists who have visited Chuuk therefore only dive some of the reefs and do not dive the shipwrecks. It is interesting to note that the number of Japanese tourists has increased whereas the number of U.S. tourists has decreased in Chuuk although this trend is not seen across the whole of Micronesia.

World Heritage value

Another value that is relevant is the 'outstanding universal value' pursuant to the *World Heritage Convention 1972*. As noted in Chapter 1, I considered this an important issue to research, which resulted in a paper published in the *International Journal of Nautical Archaeology* (Jeffery, 2004a; see Appendix 1). It is my view that the Chuuk Lagoon submerged military sites meet two of the criteria for WHL, the test of authenticity and possibly have no ownership impediments, but because they are not managed appropriate to the World Heritage Committee (WHC), they would fail on the conditions required for listing.

The FSM ratified the World Heritage Convention in 2002, they currently have no sites on the list, but in 2004 they nominated the Yapese Disk Money Regional Sites (in Palau and Yap) for listing.¹⁹ They have also investigated the Nan Madol site for listing (Anon 1985). The Chuuk Lagoon submerged WWII sites had at that time not been considered. In my research on this topic, while I did not find comments from the government of FSM, I did find the following comments from a meeting of Pacific Island nations at a World Heritage convened meeting in which the FSM attended, and where it was recorded:

Potential World Heritage sites in the Pacific Islands region are likely to be serial sites and multi-layered cultural landscapes. These serial sites attest to the history of voyaging, land and sea routes, and of trade, the first landings, activities, settlements and agriculture in the Pacific Islands region. Other series of sites reflect the different waves of migrations. Other serial sites manifest the history of Pacific peoples before and after European contact. As serial sites they form lines crossing the boundaries between countries and are therefore transborder and transnational sites. (WHC 1999: 56)

In 2007, the Chuuk government contacted Dr. Craig Forest (University of Queensland Lecturer and specialist in submerged site legal issues) to conduct a seminar on issues associated with the submerged WWII sites, including WHL, who made contact regarding my involvement in the seminar. The seminar did not proceed, but during fieldwork in August 2007 I met with representatives of the Chuuk government who, after a meeting with representatives from UNESCO and the FSM national government, were keen to consider preparing a tentative list of world heritage sites in Chuuk, including the submerged WWII sites in context with the natural heritage of the lagoon.

Management of the submerged World War II sites

An investigation of the management of the submerged WWII sites was considered warranted given the association between value and management in the heritage management process. It is a well established aspect of heritage management that the value of a site, or its significance, is a major factor in driving its management (Australia ICOMOS 2000; King 2004; Mason 2006; Smith 2006). Sites can have a number of different values, sometimes contested, as has been outlined above, and there can also be conservation, maintenance and site mitigation issues stipulated in legislation and charters that need to be addressed (King 2004: 81; Smith 2006: 105). The aim of investigating the management of the Chuuk submerged WWII sites is to consider what values are behind its current management, and what issues have arisen as a result of this approach.

¹⁹ Only the country containing the site can nominate a place for World Heritage listing.

Implementing Chuuk legislation: Artefact recovery

Prohibiting artefact recovery without a permit was an aim of the legislation that was approved by the Chuuk District Administrator in August 1971. The legislation has been amended three times, the last amendment was made in February 2000 where it had been incorporated into the *Draft Chuuk State Code, Title 25. Maritime and Marine Resources* and documented as *Chapter 8, Chuuk Lagoon Monument*. In nearly 36 years, the aim of the Act has changed only marginally; it has essentially remained a law prohibiting the removal of artefacts and with a provision that allows for funds to be collected. In a 1980 amendment, the need for tourist divers to be accompanied by certified dive guides became compulsory along with a US\$3 fee; in 2000, the fee was amended to US\$30. This amendment had the benefit of a Chuukese diver accompanying all dives, who could ensure that no artefacts were recovered. Another benefit was in their diving safety assistance, and informing divers about the different values of the sites. It provided a sum of money for the ongoing management of the sites. The other six sections of the legislation have essentially remained unchanged; the fine of \$1000 and/or six months gaol that was prescribed in 1971 still remains today.

The Act is not accompanied with any guidelines or administrative instructions about how the legislation is to be enforced. The Act did provide for the appropriation of money for enforcing the legislation, prior to the introduction of the dive fee. The Chuuk Department of Marine Resources is the agency responsible for the legislation, although during the 1970s, the Department of Public Safety took on this role. Some monitoring of the sites was carried out by both of these agencies but in recent times little has been done (Hezel and Graham 1997: 34). The other Chuuk government agency involved in the management of the submerged WWII sites is Chuuk HPO, through its involvement in the U.S. Historic Preservation Program.

Over the years, thousands of artefacts have been removed from the submerged WWII sites. Some of this material is confiscated by the Chuuk State government official, often when searching divers' bags at the airport. This material has found its way into a small collection that was under the responsibility of the Chuuk Visitor's Bureau. Lately it has been deposited with the Chuuk HPO and where much of it, particularly the ferrous guns and other artefacts are falling apart due to the lack of conservation. It is known that some divers have been apprehended for recovering material illegally and fined, but it is thought to be an insignificant number compared to the number of known acts of artefact souveniring (Hezel and Graham 1997: 35).²⁰

²⁰ As a comparison, in 2006, the Palau government prosecuted two foreign divers for removing artefacts from some Japanese shipwrecks. They were both imprisoned and fined.

Many Chuukese are also reluctant about informing on those implementing an illegal act, to the point where they may not even remove artefacts from a diver's bag. The apprehension and fining of Chuukese who have committed an illegal act is also not common. Chuukese are a 'close-knit society' and informing on, arresting another Chuukese, or 'making a stir' is often avoided. Hezel and Graham (1997: 35) state that this is part of their 'normal cultural behaviour'. This is not to say that police do not arrest Chuukese who commit illegal acts, but illegal acts associated with the submerged WWII sites seem less likely to be pursued. This was highlighted in the case regarding the loss of the bell of the *Sapporo Maru*, which was located during a survey I implemented in 2002. Within 24 hours, the shipwreck was stripped of its bell, damaging the shipwreck in the process. The police investigations revealed that a Chuukese dive guide had taken the bell, but it was concluded there was no breach of the law as it was still located (hidden) on the site, even though part of the shipwreck was damaged in the process of removing it. I subsequently found that the dive guide reportedly recovered the bell to keep it from falling into the hands of a foreign diver and therefore leaving the country (see Figure 8.9).

Implementing Chuuk legislation: Conservation issues

Conservation issues with regard to boats dropping anchors onto sites, particularly the live-aboard boats have been overcome by their operators establishing their own moorings. However smaller boat anchors still cause damage. By far the biggest concern in the conservation of the sites is in dynamite fishing, and to some extent in the stability of the munitions. In 1976-77 explosions were heard on Uman Island and thought to have come from the *Gosei Maru*. This shipwreck contains a number of torpedoes and upon investigation it was found that the 'high pressure vessels inside the torpedo body were deteriorating to the point that they would rupture and the high pressure gas would be released' (Bailey 2000: 318). In 1977, intentional detonations were carried out on the remaining torpedoes but further explosions were reported to have occurred in 1998. Detonations were also carried out on the *Fujikawa Maru* in the 1970s for similar reasons to which Bailey (2000: 289) laments: 'The resulting explosion was highly damaging to animal and plant life on the wreck; the amount of marine life today is only a fraction of the prolific growth that was present before'. There are many other types of munitions on many of the shipwrecks which could be equally as dangerous—not only for the fabric but also for all divers. There are different views on this though, some say the picric acid which the Japanese used to detonate the explosives is dissipating slowly into the sea rendering them harmless (Earle and Giddings 1976: 603). Others regard the munitions as potentially very dangerous. Another view is that the explosive material is still useable and they

are not benign, although the picric acid in sea water should crystallize and not detonate, unless knocked (Utley, Bill 2007 pers.comm.).

Storms, typhoons and corrosion combine with the dynamite explosions (from those looking for valuables and those dynamite fishing) and poor mooring practices, to have caused partial collapse of some sites including the exposed masts of the *Fujikawa Maru*, *Shinkoku Maru*, *Hanakawa Maru* and *Yamakisan Maru*. Typhoon *Nina* in 1987 caused the bridge of the *Yamakisan Maru* to collapse and tore open the super-structure of the *Fujikawa Maru* (Hezel and Graham 1997: 31). On days after a moderate storm, the disturbance of silts can be seen in the holds of the *Fujikawa Maru*, located in 25 metres of water.

Deterioration could also cause the release of any remaining oil, diesoline and aviation fuel. Earle and Giddings (1976: 603) noticed this in 1975 on the *Amagisan Maru*. They considered that the slow escape and dissipation of fuels was safe and it did not warrant salvage, which could be very damaging to the environment if massive amounts were released in the process. Oil leaking from the USS *Mississinewa* in Ulithi Atoll in Yap in August 2001, demonstrated the vulnerability of these sites to corrosion, and deterioration caused by storms (Monfils et al. 2006; Smith 2004). In Chuuk Lagoon, it is known that aviation fuel has been leaking from drums on the *Kiyosumi Maru* and oil from the *Hanakawa Maru* located near Tol (Hodson, Colin 2001 pers.comm.). In July 2006 as a result of aerial surveys it was reported that the *San Francisco Maru* and *Hoyo Maru* were leaking (Osiena, R. Chuuk Director Department of Marine Resources 2006 pers.comm.).²¹ During the corrosion survey conducted in November 2006, *Nippo Maru* was found to be leaking fuel of some type (Richards, Vicki 2006 pers.comm.). Over the years a number of other sites have leaked fuel and oil, the surface slicks being used by Chuukese dive guides to help find the sites (Rudolph, Arimichy 2001 pers.comm.). Chuuk Lagoon has three former Japanese fleet oil tankers that have the potential to carry up to 32,000 tons of oil (Bailey 2000). While this and the other amounts of aviation fuel contained on other ships may slowly escape and dissipate without any environmental impacts, the accelerated corrosion from dynamite explosions, storms, poor mooring practices could see a massive amount released with grave environmental impacts.

Oil and gasoline leakage is a field of investigation that has not been carried out in this study but is now being investigated through the Earthwatch project that commenced in 2006 (Jeffery 2007). At

²¹ This site was investigated during one of the Earthwatch 2006 field teams and found not to be leaking oil. Former dive guides A. Rudolph and A. Mailo considered the source of the leakage to be the *Kiyosumi Maru* which is only a few hundred metres from the *Hoyo Maru*.

this stage, it is not known how much oil is in the bunkers of the oil tankers and ships.²² An organisation named South Pacific Region Environment Program (SPREP) was commissioned to develop a regional strategy into the issues associated with oil releasing in an uncontrolled manner from submerged World War II sites throughout the Pacific and East Asia. The strategy was initiated when the American tanker *Mississinewa* suffered typhoon damage and when part of its 19 million litres of oil and aviation gas was released. Phase I of their study has involved data collection and further risk assessment of oil contamination, and they have developed a database of over 3800 World War II shipwrecks lying throughout the Pacific and East Asia including 330 tankers and oilers (Monfils et al. 2006: 779-788) (Figure 9.8). Phase II of their assessment is to implement some site-specific assessment and where the Earthwatch project is well suited to assist the Chuuk government and SPREP.

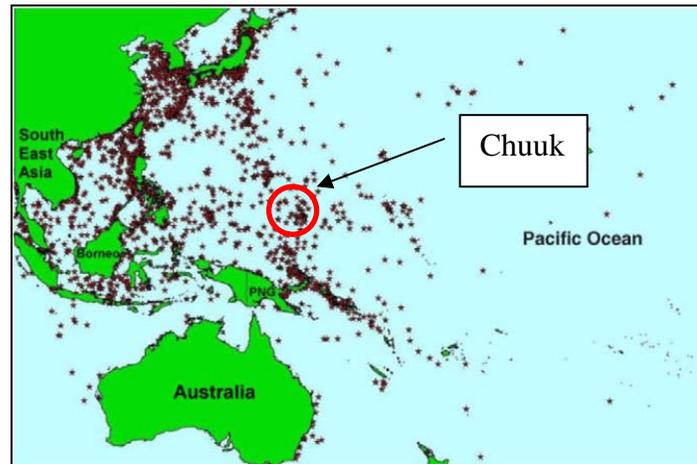


Figure 9.8: Location of many of the 3,800 ships sunk during World War II (Monfils et al. 2006).

Management issues

All of these issues combine to make the management of the submerged WWII sites very problematic. There are some substantial management issues, of which some are a result of the differences in values and their contested nature, and others that are not, being some of the conservation issues. Even a country with a viable economy and a prosperous society would find the effective management of more than 50 large shipwrecks and numerous aircraft daunting. The funds raised from the annual diving permit would go some way into helping in site management, but there is little evidence of it being used in this manner. It is known that the majority of Chuuk's workforce are government employees, and it is likely the permit money is used for this purpose and in other

²² With the loss of many Japanese documents from the war time, this may never be known.

areas of Marine Resources, but as in many other government agencies in Chuuk, little funding appears to be left over for implementing projects. There have also been major concerns from the U.S. and FSM governments about general government funding being misappropriated.²³

Conclusions

The aim of this chapter was to outline the different values and conflicts associated with the submerged WWII sites. It was also an aim to place site management into context with the values of the sites.

It has been shown that the submerged WWII sites contain both tangible and intangible heritage aspects, but the management focuses on the tangible aspects according to a dominant Euro-American perspective. This is related to the iconic pedestal that the tourism industry has placed the sites on, which is widely promoted through websites and primarily American publications. While they are also of historic value to the U.S. as symbols of a great war-time tactical success, the submerged WWII sites and Chuuk in general do not have strong links with U.S. war veterans. There are no substantial or ongoing U.S. memorial services as is found in Guam, Saipan and Guadalcanal. This is in stark contrast with how Japanese value the sites, as open war graves and where there is still a need to finalize end of war processes. Japanese veterans have acknowledged that tourism is an important industry for Chuuk, but many dislike the activity because of its conflict with their open war graves.

To Chuukese, the tourism industry centred on the submerged WWII sites brings considerable economic benefit to the government and tourist operators, as does dynamite fishing and artefact recovery to many Chuukese families. Although these activities can conflict in relation to the management and longevity of the sites, the government appears powerless to stop it, which could be an acknowledgement of the level of poverty in Chuuk. It could also be indicative of Chuukese not perceiving the submerged WWII sites as 'heritage'. Heritage to Chuukese can include tangible material culture where it is associated with traditional cultural practices but much of is intangible, in the stories and associations with people and community. Although the submerged WWII sites are

²³ F. K. Takeuchi 'Thinking the Unthinkable: Can the FSM hold together' in *Pacific Magazine* (November 2003: 16-18) which in part stated: 'In past years, its [Chuuk's] chronic financial woes and leadership shenanigans were something of a running joke. Now the problems are a nightmare, and are at the core of stringent U.S. demands for greater financial accountability and transparency for the whole federation. There is serious discussion now taking place among national [FSM] leaders about the possibility of the FSM existing without Chuuk. [When the current FSM President Joseph Urusemal was asked if he foresaw the FSM breaking up he replied] I don't think this will happen, at least not on my watch.'

used as mnemonic devices by some Chuukese to remember when the war started, it is the terrestrial WWII sites that have family and suffering connections. There are complexities associated with these sites as suggested by Rainbird (2001: 46-47), but in comparison with the submerged WWII sites, they appear to provide a sense of place and reflect elements of a Chuukese identity. I contend however, that the submerged WWII sites do not provide Chuukese with a sense of place meaning there is no sense of belonging. In comparison both the submerged and terrestrial WWII sites provide a sense of place and reflect elements of a Japanese identity.

This has now set the scene for Chapter 10 which will investigate the meanings in the different conflicts of the site values.

Chapter 10: Discourses, conflicts and meanings

Introduction

In this chapter I explore the conflicts that have arisen from the different values and management of the submerged WWII sites. I contend that these conflicts relate to the impact of the war and colonialism, and an investigation in this context can contribute to a broader debate about the relevant communities and their relationships. This investigation has been undertaken using a post-colonial approach which combines an analysis of the colonial discourse, its impacts, resistance and responses to this discourse.

In investigating the conflicts, I focus on the way Chuukese, Americans and Japanese remember, use and communicate about the submerged WWII sites. Chapters 3 and 9 highlighted how heritage is a cultural practice and not simply the fabric of a site. It is how people and communities engage with the fabric and how they create value and meaning in the fabric. Cultural practices are found in all forms of daily living, in interacting with kin, in food and land and not just in association with 'heritage' sites. Cultural practices can contribute to the creation and reinforcement of cultural identity, and it can also be influential in the creation of national identity through a discourse associated with heritage management programs. In Chapter 9 it was shown how different mnemonic devices are used by different communities in remembering the war including the differences in use of the terrestrial and submerged World War II sites. By investigating the conflicts in the discourses, I attempt to provide some meaning about the various communities, their governments, their relationships, and combined interactions.

I also take some prompting from Gosden (2004) and Thomas (1994) in structuring my post-colonial discourse associated with the submerged WWII sites. I consider the values of the sites that were identified in Chapter 9 and how 'the coloniser's use of power, knowledge and the narrative' has manipulated and dominated the value and meaning of things, in this case the submerged WWII sites (Gosden 2004:18-20). In this study, I have spent some time on investigating the local history of Chuuk, in an attempt to gain a more appropriate perspective and understanding of Chuukese history, which Thomas (1994: ix-x) has stressed is a priority in colonial studies. In the later section of this chapter, I investigate the values of USS *Arizona* (sunk in Pearl Harbor in 1941), the shipwrecks

associated with the 1946 nuclear bomb tests in Bikini Atoll, Marshall Islands, and the submerged WWII sites associated with the war battles off Guadalcanal, Solomon Islands. The comparative assessment, through comparing local histories, is used to illustrate differences and critique my findings in analysing the meanings gained from the conflicts in the discourses (Gosden 2004: 20).

Chuukese discourses and associated conflicts

In the following discussion, I investigate the various ways in which sections of the Chuukese community use the submerged World War II sites and what conflicts have developed. Many of the various uses are based on the economic return that can be obtained from exploiting the sites. The need for money began during German times, when it was required to pay taxes and buy imported food and goods (Hezel 1995: 144). Initially the submerged World War II sites were economically exploited through the salvage of scrap metals. This was followed by diving tourism, dynamite fishing and artefact recovery all of which have helped in obtaining money to pay for daily living expenses or in just a few cases, to make a profit. Apart from the general fishing industry, which has recently collapsed due to freight problems, the tourism industry associated with the submerged WWII sites is the largest and most viable industry for Chuuk.

Conflicts in dynamite fishing and artefact recovery

Other revenue raising activities include dynamite fishing and artefact recovery. With regard to dynamite fishing it is thought to be a lucrative industry but only for a minority of the community. When asked about combating these two illegal activities, Gradvin Aisek stated: 'We can stop the tourists, but there's nothing we can do about dynamite fishers, with one bomb you can make \$2,000 to \$3,000, so there's a huge incentive' (*San Francisco Chronicle* June 19, 2000). In a discussion I had with two ex-dynamite fishers (now Conservation Officers with the Department of Marine Resources) in August 2007, they informed me that money was the motive for dynamite fishing and they stopped it (after about six years) because of the deaths they had witnessed. They also did not report any traditional practices associated with the activity, stating that it was against traditional practices as it was a destructive activity to all marine life and was being implemented on reefs that dynamite fishers did not own.

From the perspective of sections of the Chuuk community including tourist operators and Chuuk State government, dynamite fishing is an illegal and totally destructive fishing practice. It not only kills edible fish, but all living animals and in the case of the shipwrecks, it strips away the protective layer of marine concretion, renewing and accelerating corrosion (Macleod 2003: 10). While it is an

unknown issue, other munitions, mines and bombs could also be seriously impacted, possibly leading to their decay and detonation underwater. Dynamite fishing could eventually cause some ships to collapse, resulting in the destruction of habitats and the complete loss of edible fish, and it could lead to the demise of the tourism industry. Its value as an economic initiative is therefore short-lived with consequences on other values of the sites and the broader marine environment. It is interesting to note that Aisek, as a Mayor of a local municipality, and who runs a profitable tourism business based on the submerged WWII sites, which would eventually suffer from their demise, appears powerless or does not want to stop dynamite fishing.

I was told of a number of cases which illustrate the length to which some Chuukese will go in their dynamite fishing. They include men losing their arms or hands, while either making the bombs, or when throwing them in the water. In 2004, I was told of a police officer being killed by dynamite fishers when he tried to apprehend them (Rudolph, A. 2004 pers.comm.). I was also told of a diver attempting to retrieve sea mines from the 60+ metre site, *San Francisco Maru*. He ran out of air on the seabed and came straight up to the surface without decompressing, where he collapsed, stopped breathing, was resuscitated, and after a lengthy chamber treatment was considered healthy (Bruton, L. 2006 pers.comm.). In 2006, I heard from a relative of one of four men who were attempting to cut open a bomb with a hacksaw when it burst into flames, burning all four, and critically injuring two. They had taken the bomb to a small deserted island to carry out this operation and were lucky someone passed by after the accident and took them to the hospital in Chuuk. With no medical insurance and little hope of getting to the better equipped hospital in Guam, unless the Chuuk government helped (which they were trying to do by gaining access to a FSM patrol boat), it was thought that two of them would die (Phillips, H., 2006 pers.comm.). In August 2007, I was informed that all four men had died. Bailey (2000: 6) recounts a number of other episodes where people (including Chuukese police) have had dynamite thrown at them and shots fired in return.

Dynamite fishers have greatly impacted the integrity of *Fujikawa Maru*, *Nippo Maru* (which has lost all its sea mines) and *San Francisco Maru*, in recovering munitions for making their small bombs (Hazel and Graham 1997: 31-34). The greatest damage from the dynamite fishers though is when the dynamite bombs are thrown back onto the shipwrecks to kill the fish that inhabit the sites, such as on *Fujikawa Maru* (see Figure 8.35). In certain areas, all life is extinguished, including the numerous hard and soft corals, sponges and other invertebrates. The additional impact of dynamite fishing is that it is not limited to the shipwrecks—bombs are thrown onto the reefs killing everything in its sphere of influence. During the December 2006 Earthwatch expedition, marine

biologist Mandy Hengeveld investigated a small section of the barrier reef near the North East Pass, and found the area to be greatly impacted by dynamite (Hengeveld, Amanda 2006 pers.comm.). The Chuuk government has legislation that prohibits dynamite fishing but enforcement does not appear to be reducing its operations. It is an activity that, although it provides considerable short term financial rewards, is in conflict with the health and well-being of some Chuukese, and with the government and community who need to provide ongoing care to those maimed. When a Chuukese is killed either from dynamite fishing or in any other manner, the deceased is given a Christian ceremony and buried in a lineage or clan cemetery, or at their home. The burial process, which can be decided upon by the head of the family, could include a two day wake before the body is buried generally with a large number of clan members in attendance and accompanied by a considerable show of grief (Ashby 1985: 99; Parker and King 1984: 18). Funeral taboos are also still practiced and can include placing a stick in the water, indicating fishing is forbidden (Young et al. 1997: 27).

Artefact recovery would appear to be practiced by a small number of people in the Chuuk community, especially those associated with the diving tourism industry. It can be as destructive as dynamite fishing with the ongoing illegal artefact recovery having been described as ‘organized pilfering’ (Hezel and Graham 1997: 33). In some cases dynamite has been used to open up sites in the search for valuable artefacts, such as on *Fumitzuki* (Bailey 2000: 306). There are also those who consider that sections of government and some of the dive operators have been involved in the practice of recovering artefacts (Hezel and Graham 1997: 31-36).

Conflicts in Chuuk’s tourism industry

The practices of dynamite fishing and artefact recovery conflict with the other major economic industry associated with the submerged WWII sites, that of the dive tourism industry. The decline in tourist numbers, from 9,834 in 1996 to 3,542 in 2002 could in part be related to these other activities but no studies have yet been carried out to see what influences tourist attitudes. Clark Graham, who dived the sites for over 30 years greatly laments the loss of this material from the sites and refuses to dive them now because of their demise. A number of tourist divers could also take the same view. Some of the foreign tourist divers in Chuuk told me that they were greatly disappointed that artefact souveniring was not being controlled and that ‘the people of Chuuk should understand their role in preserving a significant chapter in world history.’¹ Both dynamite fishing and artefact souveniring are in conflict with the U.S.’s use of the submerged WWII sites, being described by the U.S. NPS as ‘threatened’—an issue that is discussed later in this chapter.

¹ Anonymous response in diving questionnaire.

The point I want to make about this is that in both cases, the tourist diver and the U.S. NPS, take the view that Chuukese need to be made aware about the importance of these sites and the U.S. NPS have publicly stated that Chuukese should be educated in this regard.² An alternative approach could be for the U.S. NPS to understand the significance of the sites to Chuukese, to understand why Chuukese are implementing these activities, and to negotiate some type of management that is acceptable and realistic to both parties. Otherwise it is clearly cultural hegemony which could be interpreted as U.S. neo-colonialism.

Inherent in the U.S. approach is the notion that tourism is good for both the submerged WWII sites and Chuuk, although there are some studies that show tourism in the Pacific Islands is potentially detrimental to these societies (Biddlecomb 1981; Rajotte 1980). In Micronesia, during the 1960s and 1970s, Hanlon (1998: 120-127) paints a mixed picture of Micronesian politicians greatly endorsing tourism and the economic benefits, compared to some Micronesians who saw it as having a detrimental impact in relation to their cultural identity. Eliam Tanirono (1980: 110) from the Solomon Islands considered: 'Tourism can act as a stimulant for the young to obtain a good education, but alternatively its effects can lead to frustration and crime' and it 'can lead to both the enhancement and the deterioration of traditional values'. In her introductory essay to the series of short articles contained in *Pacific Tourism: As islanders see it*, Freda Rajotte (1980: 13) identifies the economic benefits of tourism, and its main disadvantage—the negative socio-cultural impacts. She concludes by stating:

Some socio-cultural change is inevitable, but those involved in the change should be responsible for directing it as far as possible. This implies that ownership, management and the direction of tourism policies should be under local control. In fact, decisions of expatriate managers and entrepreneurs frequently carry the direct or indirect implication that imported technologies, cultures and ways of doing things are preferable to the local, far beyond the demands of the situation. This feeling, already a legacy of past colonial administrators, is strongly reinforced and tends to undermine local confidence.

A note in the column adjacent to the negative impacts in Rajotte's (1980: 10) article is telling and sums-up what one student (considered a Pacific Islander) thinks of tourism: 'I'm not going back'. Similar sentiments to those of Rajotte can be found in Biddlecomb (1981: 59-60) where it was stated that the 'tourist phenomenon also undermines the social and cultural aspirations of our people' and 'commercial tourism [in the Pacific] is a form of economic imperialism'.

² National Register Number 76002267 www.tps.cr.nps.gov.nhl accessed 30 January 2007.

Most of the articles in *Pacific Tourism: As islanders see it* do highlight the economic and employment benefit to countries in the Pacific which are small and have little or no natural resources for economic exploitation. However, relying on tourism alone for economic and employment stability is fraught with danger as was seen in the tourism downturn during the SARS epidemic scare and the aftermath of the September 11, 2001 attack in New York. The United Nations World Tourism Organisation (WTO) advised that tourism should not be seen as the solution to the economy of a country, nor should it replace other industries, or be the sole industry in a country.³ We can readily see the negative impact of tourism on the Chuuk Lagoon submerged WWII sites—the need for artefact souvenirs by the foreign tourist divers. It could be argued that encouraging a tourism industry on the submerged WWII sites is encouraging souvenir hunters, and by stopping it, artefact recovery would decline or stop. However, with today's ability to sell anything over the internet, which is known to be happening from terrestrial Japanese war sites, it is unlikely stopping tourists would necessarily stop some Chuukese from selling submerged site artefacts over the internet. This view is also based on a premise that there is something wrong in recovering artefacts and selling them. It is illegal under Chuuk law (developed at a time where U.S. administration in Chuuk was still playing a significant role) and contrary to U.S. laws, and therefore, could this also be construed as cultural hegemony and U.S. neo-colonialism? Denis Byrne (1993: 238-239) is of the view that the 'conservation ethic' inherent in heritage management is 'Eurocentric ... ideological and class specific' and therefore a cultural hegemonic practice. Tom King, a major exponent of U.S. CRM is openly critical of current maritime archaeological approaches and supportive of commercial activities on submerged sites (King 2004: 259). He is not supportive of the indiscriminate approach currently taken in Chuuk but acknowledges a systematic approach to recovering and selling some artefacts after analysis may be justified (King, Tom 2007 pers. comm.).⁴ The paradox is that artefact recovery, like dynamite fishing can be detrimental to the tourism industry, which is currently a vital part of the Chuuk economy, and also considered to be a colonialist endeavour.

Spennemann (1992: 287-289) believes war site tourism in the Pacific has important economic benefits provided site preservation is in place, well managed, and the interpretation is unbiased—that the impact of the war on the U.S. and its war allies, Japan, and Pacific Islanders is told. I am also of the view that for tourism to be sustainable and beneficial to Pacific Islanders it not only

³ Contained in the publication *Tourism Risk Management for the Asia Pacific Region* published by PATA and found at <http://www.pata.org> accessed 30 March 2007

⁴ During 1977-1979, Tom King worked in Saipan and Chuuk in the Micronesian Historic Preservation Program, and acted as the Chuuk Historic Preservation Officer during part of this time.

needs to be unbiased but under local control or as Biddlecomb (1981: 59-60) has stated, it is a form of economic imperialism.⁵ In one of the first tourist guidebooks for the TTPI published in 1968 nowhere are the local communities and their culture mentioned as something worth highlighting. Even the general historical background of the region (Micronesia) contained in the tourist guidebook failed to mention that anyone lived there before Spain 'discovered it' (Kluge 1968: 10). This is indicative, not just of economic imperialism but racial discrimination in the tourism industry. Bender (2001: 14), in the introduction to the World Archaeology Congress (WAC) sessions and publication on *Contested Landscapes: Movement, Exile and Place* regards 'tourism [as] another form of colonialism'.

Tourism based on war related material located throughout the Pacific, by its very nature, is mainly a focus for U.S. and war-allied nationals, and Japanese. In the words of Saunders (2001: 40-42) war related 'landscapes exist as cultural images' and as 'landscapes of remembrances' being remembered more symbolically than as physical entities by the various combatants, providing a multi-vocal landscape. This can also involve ownership of the landscape depending on which memories or images are given precedence in management and therefore they can contest each other (Saunders 2001: 49-50). The war landscape of the Western Front in Russia has its associated heritage management activities and the area attracts many tourists and pilgrims, although Saunders (2001: 49-50) acknowledges that 'only in the late 1990s were scholars responding to the challenge of understanding its many layers of meaning, the visceral elements which constitute our cultural memory of war.' In a similar manner, the terrestrial and submerged war sites are major features of the Chuuk landscape and seascape and have multi-vocal meanings for Chuukese, Americans and Japanese.

In Chuuk as in other parts of the Pacific, such layers of meaning are not inherent in the management and tourism of the World War II features. War related U.S. National Parks, such as the U.S. airstrips on Tinian and the two atomic bomb loading sites lock-up large tracts of land, which could be profitably used by local people. They are now alienated from this land and in these small islands where land is not just a valuable and rare commodity, but an essential and spiritual part of being a Pacific Islander, it is reminiscent of past colonial rulers and their relations with Pacific Islanders. In

⁵ While the submerged World War II sites could be inferred as under local control given there is Chuukese protective legislation, the dive tourism industry which stimulated the need for this legislation was a U.S. initiative. The industry is biased in favour of non-Chuukese heritage values which contribute to minimal local interest and ownership of the control required.

places such as on the U.S. mainland where there is by comparison considerable space and people who do not have the same relationships with their land, large National Parks are not perceived as a great intrusion. But in Pacific Island countries, including the marine areas, having another country dictate what can and cannot happen over scarce land, and areas of water so that war-site tourists can visit, is indicative of neo-colonialism. Added to this situation is that tourism is a costly exercise and it is rare to see nationals from poorer countries involved in these activities. As an example, the only Chuukese that dive the Chuuk Lagoon submerged WWII sites are employed to do so, or are carrying out dynamite fishing or artefact recovery.

War graves and reparations

Chuuk's tourism industry based on the submerged WWII sites also conflicts with the Japanese discourse of the sites. As mentioned in Chapter 9, some Japanese war veterans and relatives of deceased personnel visit Chuuk to pay their respects to those lost at Chuuk through the commemorative and wreath laying ceremonies. Some Japanese groups have also recovered human remains so as to give those who died, appropriate Buddhists funerary rites. However, Bailey (2000: 3) noted that there have been occasions in recent years when Japanese officials have not been allowed to carry this out. He states:

It is their [Chuuk government] stated position Japanese tourists are an important source of revenue and are crucial to the economy and if all the human remains aboard the shipwrecks are returned to Japan, their visitors will no longer come to Truk. The Japanese believe that the remains belong to them and that the Trukese government is holding the bones hostage just to insure that they keep on coming to Truk and spending money.

Is this simply a conflict of uses or a symptom of a more complex conflict? I contend that it is something more complex and in particular, a response to colonialism and the war, which is possibly a result of the negotiations and responses to the issue of war reparations, which I now examine.

Treaty of Peace with Japan

In 1951, Japan, the U.S. and 44 other countries signed the *Treaty of Peace with Japan* (often called the *San Francisco Peace Treaty*), designed to 'settle questions still outstanding as a result of the existence of a state of war' (U.S.C 1955). The early 1950s was toward the end of the U.S. occupation of Japan and the peace treaty provided Japan with a way to regain its national sovereignty and join the United Nations. Micronesia or as it was known then the Trust Territory of the Pacific Islands (TTPI) did not sign the treaty as they were being administered by the U.S. as a strategic trustee under the United Nations. Article 14 of the Peace Treaty provided for Japan 'to

make complete reparation for all such damage and suffering and at the same time, meet its other obligations'. Section 4 of the treaty also made provision 'for the disposition of property of Japan and of its nationals' in Micronesia and 'to be the subject of special arrangements between Japan and such authorities'. I have interpreted this to include all the submerged WWII sites lying in Chuuk Lagoon.

Agreement between Japan and the U.S. concerning the TTPI

In 1969, the U.S. and Japan signed the 'Agreement between Japan and the United States of America concerning the Trust Territory of the Pacific Islands' which the TTPI again did not sign, still being administered by the U.S. (U.S.C 1970). The agreement provided for Japan to make available in grants, an *ex gratia* payment of US\$5 million to be spent (by Micronesia, through the U.S.) on purchasing Japanese products and services. The agreement also arranged for the U.S. to make an *ex gratia* payment to the value of US\$5 million for the damage it caused during the war and for the years of U.S. administration, to be paid into a Micronesian Claims Fund. Through Article III of the agreement, Japan's property disposition, claims and debts were 'fully and finally settled' (U.S.C 1970: 2655). Higuchi (n.d.:17) concluded that the special agreement and '*ex gratia* payment instead of war claims compensation' changed Japan's reparations from one of an 'apology' to one of 'sympathy'. He also charged that 'the Agreement's main purpose was a political one, never to go beyond the United States' sympathy and to arrive at a solution concerning a measure of the losses of Japanese property in Micronesia as a result of the war' (Higuchi n.d.:12).

As a result, the U.S. enacted the *Micronesian Claims Act of 1971* and established the Micronesian Claims Commission and accepted claims from Micronesians for one year until October 1973 (U.S.C 1972). In Title II of this Act, an appropriation of US\$20 million was made by the U.S. government to help in settling the claims. The amount claimed by individuals from the Marianas, Chuuk, Palau, Yap, Pohnpei and the Marshalls amounted to US\$2,553,213,000; Chuuk claiming 92% of this amount but receiving only 0.58% of its claim, being US\$13,547,810 and more than twice the amount of the next claimant, the Marshalls (Micronesian Claims Commission 1972-1976 cited in Higuchi n.d.: 4). People in Micronesia made a number of war damage claims before the 1969 Agreement and they have continued to make claims for the difference in what they were awarded by the Micronesian Claims Commission (Higuchi n.d.: 5; Poyer et al. 2001: 431, note 25).

Higuchi (n.d.) in this article, *War Reparations in Micronesia and Japan's Responsibility* makes a number of interesting points about Japan blocking Micronesian war claims, amongst them asserting

that Micronesians were, “the same as” the Japanese nationals’ and had no right to make claims (Higuchi n.d.: 13-14). Japan refused to accept claims for unpaid salaries, loss of postal savings and war bonds upon which the 1969 Agreement closed the door (Higuchi n.d.: 14; Poyer et al. 2001: 431, note 25). Higuchi (n.d.: 9) also points out that none of the victimized people from Micronesia participated in the negotiations for war crimes, or signed the Agreement—it was implemented between the two warring parties, and ‘this behaviour contradicts the ethics of international relations of the twentieth century’.

While Higuchi (n.d.: 1-2) and Poyer et al. (2001:16) have noted a ‘pro-Japanese sentiment’ amongst some Micronesians (related to pre-war days), Higuchi (n.d.: 1) also noted an ‘anti-Japanese sentiment’ through the Japanese’s cruel treatment of islanders during the Pacific War’, which was personally communicated to me by the chiefs of Tonoas during my survey of World War II sites on Tonoas. Lieutenant Blackton (1946: 7) as Japanese language officer with the U.S. Navy, accompanied the first post war missions to Chuuk in 1945 and observed how the Japanese considered Chuukese as unimportant, and ‘neither annoyed them nor tried to improve their condition’. However, a number of different Micronesian reactions to the war and Japan’s treatment of them can be found, depending on the different regions the Japanese inhabited. In some Micronesian regions the war had little impact, such as outside of Chuuk Lagoon, and some Micronesian people came in contact with different Japanese people with whom they became friendly, such as Japanese construction workers, and lower ranking military personnel (Poyer et al. 2001: 331-347). Higuchi sums up his article by stating that: ‘Japan must assume moral responsibility for the war damages’ and it will only be when ‘Japan’s compensation is given with deep sincerity and results in productive effectiveness and Micronesian development, then it will be true that the claims against Japan will have been met in terms of an atonement for the material and emotional suffering caused during Japan’s wartime activities’ (Higuchi n.d.: 22).

While it is unknown if the FSM still pursues war claims against Japan, other regions of Micronesia, including Guam and the Republic of the Marshall Islands do continue to make claims, and in 2002 the Marshall Islands petitioned the U.N. for Japanese war reparations.⁶ In regard to the submerged WWII sites, the 1969 Agreement gave Japan three years to salvage and dispose of wreck material, after which time I have assumed the ownership reverted to the U.S., and after 1986 to the FSM, through the Compact of Free Association. Was this for the retrieval of human remains? It is not

⁶ <http://www.pacificislands.cc/news> accessed 15 February 2007

stated or even alluded to in the documents I found.⁷ The action by the U.S. and Japan in settling the war claims had no apparent Micronesian involvement in the negotiations which appears to have been politically expedient and geared to Japanese development rather than a humanitarian one for Micronesians. I believe that the later issue of the Chuuk government denying some Japanese groups recovery of human remains from the submerged WWII sites is in response to this action, and when combined with the poor treatment of many Chuukese during the war and the failure of Japan to settle satisfactory the war claims, it is Japan that bears the brunt of Chuukese retaliation.

U.S. discourses and associated conflicts

In Chapter 9, I investigated the different values of the sites to various sections of the U.S. community. In this section I want to discuss how the U.S. has used its power, knowledge and narratives to manipulate the creation of different values and meanings of the sites, with little or no regard to Chuukese values, and how this represents a neo-colonial perspective.

U.S. discourses regarding Chuuk commenced in the 1940s when they recognized Chuuk as a major strategic base for the Japanese. The *Naval Aviation News* (No. 25 October 1, 1945: 10) documented the highly successful February 1944 aircraft carrier attacks on Chuuk Lagoon as a payment for the Japanese bombing of Pearl Harbour. It was later recognized that the military's annihilation of Chuuk was one of eight of 'the most important incidents in the U.S. drive across the Central Pacific, 1944-1945, which contributed to the unconditional surrender of Japan' (U.S.NPS 1986).⁸

Amendments to the *National Historic Preservation Act of 1966* to provide for its enactment in the TTPI in 1974, paved the way for the registration and protection of the Chuuk Lagoon submerged WWII sites in 1976, along with the Japanese Army HQ at Roror on Tonoas, and the Japanese WWII guns and cave at Tonotan on Weno. The National Historic Landmark (NHL) nomination found the lagoon's submerged WWII sites to have predominantly historic value but also social and aesthetic value, although the social and aesthetic aspects are covered in just five lines of text in a total of 13 pages that comprised the nomination. The historical value was considered to be in how the U.S. regarded Chuuk as the equivalent to Pearl Harbor, and how the U.S. Navy's neutralization of the base was seen as a pay-back for Pearl Harbor. The social value of the sites was connected to the many Japanese killed aboard the ships, and general aesthetics was covered by the statement 'one

⁷ The ownership issue is discussed briefly later in this chapter but it is complex issue and a comprehensive study is beyond the scope of this thesis (see Forrest 2003).

⁸ The other seven incidents were Kwajalein Island, Roi-Namur Islands, Saipan Island, Tinian Island, Peleliu Island, B-29 Enola Gay, B-29 Bock's Car.

of the world's underwater wonders' (U.S.NPS 1985). Another interesting aspect of the nomination was that nowhere is mention made of the suffering of Chuukese during the war, and through this omission, no significance is placed on their suffering. The nomination is obviously meant to be from a U.S. perspective, setting its importance in U.S. history although its legislation had been adapted for application and relevance in the FSM and Chuuk.

There are 70 designated NHL sites related to World War II. In the *2000-2001 NHL Report to Congress*, the values of a NHL are listed and include 'places where our nation's most significant events occurred, where prominent American's worked or lived, that represent those ideas that shaped the nation and that provide important information about our past' in essence, tangible and intangible remains of 'exceptional national significance' (U.S.NPS 2001: 1). In illustrating or interpreting the heritage of the United States, NHLs would appear to be influential in reflecting a U.S. national identity (U.S.NPS 2001: 1). World War II related NHLs located throughout Pacific Island nations do highlight the powerful, fighting, determined and resourceful spirit of the U.S. people. But they fail to include or acknowledge any determination, resourcefulness or suffering of Pacific Islanders. It is possible that U.S. bureaucrats when compiling the NHL nomination for Chuuk did not even consider this, highlighting again how Chuukese had become invisible in their own land with the U.S. administration, and the inappropriateness of U.S. heritage legislation in Chuuk.

After the war, as the administrators of Chuuk, the U.S. Navy—then the Department of the Interior, would have overseen the change in the value of the submerged WWII sites from allowing salvage by Palauan and Chinese salvage teams, to Japan being provided with salvage and disposition rights in 1969. I outlined in Chapter 9 how a number of Americans helped to establish the diving tourism industry in Chuuk during the early 1970s, and U.S. administrators in Chuuk at this time would have also assisted and encouraged the Chuuk government in approving Chuuk legislation protecting the sites against illegal recovery of artefacts. The 1989 U.S. Historical Park study was the first document which discussed any social values attached to the submerged WWII sites and the war in general from a Chuukese perspective, but appears not to have been adopted (U.S.NPS 1989). In 2002, the NHL designated 'Truk Lagoon Underwater Fleet' was given a 'threatened' status which meant:

Condition: The underwater fleet is experiencing significant deterioration, vandalism and looting. The theft of artifacts [sic] by divers has increased over the years. Spear and line fishing and small boats anchoring to the underwater fleet have caused damage to the resource.

Recommendation/Change since last report: Dive shop operators, visiting divers and the Chuukese community need to be educated about the significance of the fleet and the importance of protecting the NHL and the artifacts.⁹

It is interesting to note the statements that appear on the U.S. NPS website, statements on how the U.S. government are critical of Chuukese from the point of artefact theft, and should be appropriately educated. The Chuukese community are singled out in this statement. Visiting divers who are criticized are not given a nationality, although U.S. divers are the largest number of divers visiting Chuuk. The demand for souvenirs from diving tourists drives the black market artefact trade and to a large extent, Chuukese involvement. Given that these sites are protected to illustrate elements of a U.S. national identity, not a Chuukese identity, surely the priority should be the education of U.S. divers. The U.S. NPS statement provides evidence of a neo-colonial nature in the U.S. discourse on the submerged WWII sites. The use of a historic preservation program and the legislation that was amended to have relevance in Chuuk, actually has little relevance in this case. The changing values of the sites that the U.S. politicians, bureaucrats and business operators have created over the years to suit the same approach in the U.S., and the ‘threatened status’ narrative, provide evidence of an ongoing colonial perspective of the relationship between the U.S. and Chuukese governments and community.

The tourist diver discourse, the use and the narrative of the submerged WWII sites also needs to be highlighted for its role in creating the value of the sites. I stated in Chapter 9 that the major narratives on the submerged WWII sites are from U.S. sources and how they developed from the immediate post-war historical summaries to the latter day tourist orientated books and dive magazine articles. The major focus of the narratives is based on describing the tangible remains of the submerged ships and aircraft, along the lines of, ‘a World War II enthusiast’s dream’ with ‘incredibly prolific coral encrustation’ (Bailey 2000: xi), and ‘like browsing through an antique store’ (Earle and Giddings 1976: 595). The use of the sites by diving tourists (including other nationals) is in viewing, photographing the ships and aircraft and/or collecting portable material remains. While tangible remains are the major focus for some, others experience a personal connection with the war, derived from the proliferation of artefacts and the bomb damage the ships and aircraft sustained. This can be seen in the statement made by a U.S. diving tourist in the documentary film *Shipwreck Detectives: Pacific Graveyard*, ‘down there it is overwhelming, seeing the saki bottles, bicycles, shoes, this is real, this really happened, this is war, it is overwhelming, you get teary, it is amazing’.

⁹ National Register Number 76002267 www.tps.cr.nps.gov/nhl Accessed 30 January 2007

Japanese discourses and associated conflicts

The Japanese discourse has parallels and some differences to the U.S. and Chuukese discourses. They acknowledge tangible remains to be of importance, not from their historical or economic value, but from a social value—the human remains. They regard the sites as ‘open graves’ and are disturbed by divers touching these remains, being ‘a continual source of national sorrow’ (Bailey 2000: 3). The loss of the majority of Japanese military personnel at Chuuk is associated with the ships. They provide the link to the cultural practices and memory making carried out every year at the commemorative ceremonies. U.S. and Chuukese government and community individuals do participate in some of these ceremonies, as was the case of the 60th anniversary of the commencement of the bombing on 17 February 2004, where representatives of the three governments attended. But these ceremonies are based on Japanese annual, as well as intermittent pilgrimages, and include Japanese war veterans as well as relatives and descendants of those who were killed. Wreaths are often placed over the top on some of the submerged WWII sites and the *Aikoku Maru* and *Fujikawa Maru* shipwreck sites have memorial plaques fixed to them (Figure 10.1).



Figure 10.1: The plaque reads: 'Aikoku Maru. Sunk February 17, 1944 during US Navy's "Operation Hailstone". This plaque placed February 1994 on the 50th Anniversary of this action commemorates the bravery and many lives lost during the Battle at Truk Lagoon'. The exposed human remains provide evidence of the 'open graves' (Photograph by Colin Hodson, 2000).

I mentioned in Chapter 9 that Japan clearly stated that their sunken warships and aircraft must be ‘respected as maritime graves’ (USDS 2004: 5647). They recorded no other value, and in regard to ownership they were not explicit, whereas all the other nations explicitly stated they retained ownership. Japan preferred to leave the question unanswered by stating that the sunken warships and aircraft ‘remain the property of the State unless it explicitly and formally relinquishes its ownership’. It is likely they relinquished ownership through the 1969 agreement with the U.S. government, but in 2004, they left the moral door open in regard to the human remains, by stating the shipwrecks ‘should not be salvaged without the express consent of the Japanese Government’ (USDS 2004: 5647).¹⁰

The Japanese engagement with the Chuuk Lagoon submerged WWII sites stand out in contrast with how American and Chuukese engage with the sites, in that tourism is considered inappropriate. Ironically, this is the same view the U.S. has with regard to the USS *Arizona*, as a war-grave and where diving tourism is considered inappropriate. The encouragement of the Chuuk Lagoon dive tourism industry by the U.S. and its prohibition on the *Arizona* is an interesting conundrum that is discussed later. There are also some differences in the treatment of war-graves between Japan and the U.S., where Japanese religious customs call for the recovery of human remains, and the appropriate Buddhist funerary rites. The U.S. generally recover and bury their war dead, although in the *Arizona* case the dead were left where they died. The ‘1969 Agreement on War Claims’ between the U.S. and Japan made provision for Japan to have access to salvage the submerged sites for a period of three years and it may have been for the purpose of recovering human remains but nothing appears to have been implemented until after the finding of the Japanese submarine *I-169* in 1971. The ongoing need by Japanese groups to recover human remains has brought them into conflict with the Chuuk government as already discussed.

Many Japanese people today still value and engage with World War II sites including the submerged WWII sites as they have done from the end of the war. There is however a developing interest in diving the submerged WWII sites by younger Japanese as I witnessed during the period of this study. With the increasing number of Japanese tourists visiting Chuuk there are some who now dive the submerged WWII sites, and who are gaining a personal connection with the war and a ‘sense of place’ and by doing so making statements afterwards to the effect: ‘how the Japanese invaded here and things like that are not taught in Japanese education ... I think Japan must tell its people about things like this so our generations who don’t know what happened here will be

¹⁰ In 2002, I was informed in a brief discussion with the Attorney General of the FSM that Japan does not own the Chuuk Lagoon shipwrecks.

educated ... to learn about the history here is very important for both the Japanese and the Americans, by looking at the remains of the shipwrecks we can see how disastrous the war was' (*Shipwreck Detectives: Pacific Graveyard*). Perhaps as Spennemann (1992: 289) has stated the interest in war sites will 'grow as survivors of the Pacific War die and, therefore, the more the emotional aspect of the war is reduced'.

The role of war remembrances

There are also similarities and differences in the Japanese, U.S. and Chuukese discourses on remembering the war and the values of the associated sites that place their discourses in context. Ballard (1993) found both Japanese and U.S. war veterans reluctant to talk about the war and in returning to one of the bloodiest battles in the Pacific, the Battle for Guadalcanal. Other Japanese veterans who were involved in some of the brutal and depraved aspects of the war in China want to tell their stories. Ken Yuasa has provided over 500 lectures to community groups and school students over a 40 year period on the 'need to remember the past in order to not repeat it' (*The Australian Features* August 29, 2002: 9). A highly politicized issue in war remembrances and the differences between Japan and the U.S. can be found in Japan's nomination of the Hiroshima Peace Dome (Genbaku Dome) to the World Heritage List, being the only structure left standing in the area where the first atomic bomb exploded on 6 August 1945.¹¹ Part of Japan's justification in nominating the site in 1995 was that 'the Dome has become a universal monument for all mankind symbolizing the hope for perpetual peace and the ultimate elimination of all nuclear weapons on earth'.¹² The U.S. (and China) expressed reservations about the listing of the dome on the grounds of singling out one episode and one country among many who suffered, and a lack of historical perspective (WHC 1997). Japan's nomination at the time seemed to be as much about World War II as it was about nuclear non-proliferation. In conjunction with the only other World War II site on the World Heritage List—the Auschwitz concentration camp (where 2.5 to 4 million people were killed), both would appear well suited in highlighting the carnage and futility of war, and the need for peace. The U.S. objected to war sites being on this list stating that they are 'outside the scope of the World Heritage Convention' although the U.S. has 70 NHLs that are related to World War II.¹³ Every year on the 6th August, a peace declaration is issued by the Mayor of Hiroshima at the Peace Dome in which the suffering and despair inflicted by Japan on the people of the Asia / Pacific

¹¹ <http://whc.unesco.org/sites/775.htm> accessed 3 March 2004

¹² World Heritage List nomination for Hiroshima Peace memorial, Genbaku Dome from Japan, # 775, 28 September 1995

¹³ <http://tps.cr.nps.gov/nhl> accessed 15 February 2007. The U.S. also regard NHL designation as a requirement for World Heritage listing

region is acknowledged, and considered to be inexcusable. The peace declaration is also used to 'renounce war eternally and build a plan for world peace' and about which '426 cities from 100 countries and regions' have become united.¹⁴ It is possible the U.S. regard the Hiroshima Peace Dome as a symbol of the terrible destructive forces of the atomic bomb unleashed through American technology, and not as a symbol on the need for peace. Although initially, the use of the atomic bomb in Hiroshima and Nagasaki was celebrated as it brought a quick end to the war and saved many U.S. lives, 'moral implications of the use of the bomb troubled some observers' and it brought a 'spectre of nuclear armageddon' (Delgado et. al 1991: 12).

Chuukese war remembrances and memorials

There are no physical memorials in Chuuk that acknowledge Chuukese death or suffering. To Chuukese, most memories associated with this period take the form of stories, songs and dances: 'They engage with the war as a part of their own personal and family history and to add to its construction as a useful community memory with which to understand current events' (Poyer et al. 2001: 333). Much of the memory is about family or clan tragedies but it can include other villages and clans needing help, which brought a wider section of Chuukese together as described in Chapter 6. As already mentioned in Chapter 9, most Chuukese have minimal engagement with the physical war remains unless they are used as mnemonic devices to remember the war, or work in the tourism industry. The few stories I recorded of Chuukese remembrances of the submerged WWII sites relate to the day war commenced in Chuuk, the death of many Japanese military personnel, then the salvage of metals in the 1950s. Poyer et al. (2001: 337) noted however, that amongst the general Micronesian community there 'was a desire to assume a more visible role in the history of the war [through the] construction of their own war memorials'. It was also concluded in the U.S. NPS Historical Park study (U.S. NPS 1989: 64) that Chuukese had been overlooked in commemorating their losses from the war: 'Unfortunately, nothing tangible remains of this aspect [how the war affected Micronesians] of World War II except the graves of the Nauruans on Tol. The establishment of an historical park provides a means to preserve these intangibles and, through interpretation, pass them on to others'.

Summary of discourses

Japanese relations with Chuuk over the submerged WWII sites have caused conflict, and I argue this is in response to colonialism and the impact of the war, as can be seen in the manner in which

¹⁴ <http://www.pcf.city.hiroshima.jp/declaration> accessed 15 February 2007

war compensation was negotiated between the U.S. and Japan without Micronesian involvement, in addition to the inadequate war claims. Coupled to this is the fact that the U.S. has used its knowledge, narratives and power to manipulate change in the values and uses of the submerged WWII sites which I also argue is another example of colonialism and neo-colonialism. I have demonstrated how U.S. NHLs are influential in reflecting a U.S. national identity. The U.S. government made no reference to Chuukese suffering in their NHL nomination of the submerged WWII sites and in so doing, make NHLs irrelevant in reflecting any aspects of a Chuukese identity. It would seem incongruous to have the NHL process applicable in Chuuk, and the one NHL designated in Chuuk to only reflect on the history and war-time successes of the U.S. It is therefore argued that the NHL practice in Chuuk, as with other legal instruments and processes are only for the purpose of a providing U.S. cultural hegemony.

Comparative discourses

In the next section I investigate USS *Arizona*, and the submerged WWII sites in Bikini Atoll and off Guadalcanal to determine what meanings can be interpreted from their values and management (see locations in Figure 10.2). I investigate these similar site types from the same historical period and from a similar region, the Pacific Ocean, as appropriate examples in critiquing my argument that submerged WWII sites can be used to provide more general socio-historical and socio-political information, including a post-colonial perspective. Finally I compare the value, management and meanings that I gather from these three examples with the Chuuk Lagoon submerged WWII sites. Two of the examples are located in Pacific Island nations that have had colonial rulers, and are now independent nations, very similar to Chuuk, and the third, Hawaii is the U.S.'s only Pacific Island state.

The Submerged Resources Unit (SRU) of NPS prepared reports from surveys they conducted in two of these cases (*Arizona* and Bikini Atoll), as they did in Chuuk (see Chapter 3), and this was seen as an advantage in providing this comparison (Delgado et al. 1991; Lenihan 2001) (see Table 10.1). I did not carry out any field work on the sites although I briefly visited Hawaii and the USS *Arizona* memorial in March 2007. The Guadalcanal sites, which are outside the jurisdiction of the U.S. NPS utilized a number of texts, personal communications, and published material from people who have visited the region as researchers, and as tourist divers. Guadalcanal is used as an example of another indigenous Pacific Island region that has Japanese and U.S. submerged and terrestrial WWII remains but no obvious U.S. or Japanese administrative involvement in their protection at a local level, as in Chuuk.

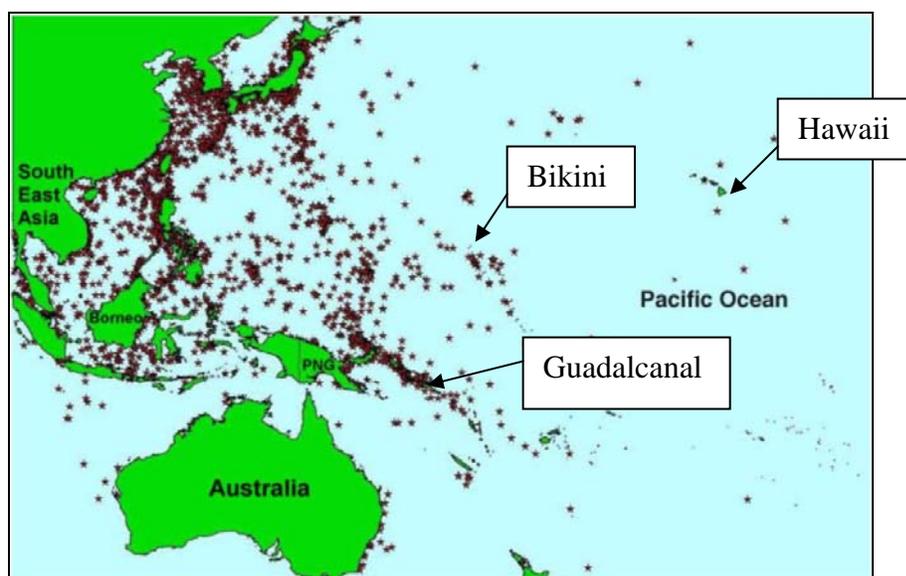


Figure 10.2: Site locations, in context with lost World War II ships (Monfils et al. 2006)

Sites	Publications
USS Arizona	<p>USS Arizona Memorial and Pearl Harbor National Historic Landmark (Lenihan 2001);</p> <p>USS Arizona (BB-39) Wreck: National Historic Landmark Study (Delgado 1988);</p> <p>The archaeology of an icon: the USS Arizona (Kelly 1991);</p> <p>Public History and Globalization: Ethnography at the USS Arizona Memorial (White 2001);</p> <p>National subjects: September 11 and Pearl Harbor (White 2004)</p>
Bikini Atoll	<p>The Archaeology of the Atomic Bomb (Delgado et al. 1991)</p> <p>Effects of Nuclear Explosions on Pacific Islanders (Tate and Hull 1964)</p>
Guadalcanal	<p>The Lost Ships of Guadalcanal (Ballard 1993);</p> <p>Solomon Islands: Guadalcanal shipwrecks revisited (Drew 1998);</p> <p>Impacts of Recreational Scuba Diving on shipwrecks in Australia and the Pacific (Edney 2006);</p> <p>Contamination Risk Assessment from WWII Armoury in Iron Bottom Sound Solomon Islands (Maharaj 1999);</p> <p>Local Perceptions on WWII material and the implications on Cultural Heritage Management and Archaeology (Stein 2007)</p>

Table 10.1: Texts used in investigating comparative sites

USS *Arizona*

USS *Arizona* sank on 7 December 1941 during the surprise Japanese attack of Pearl Harbor and the other military facilities on the island of Oahu. The 32,600 ton battleship was hit by torpedoes and bombs, and suffered the most damage of all the ships in the harbour, sinking in only a few minutes and killing 1,177 men. Less than 200 crew survived (Delgado 1988: 3-7). Some salvage work was carried out on the vessel but this ceased in October 1943 (Lenihan 2001: 35). A total of 105 bodies were recovered and in 1947 requests to remove all the bodies was rejected as the navy considered them to be buried at sea (Lenihan 2001:35). Of the 97 U.S. vessels in Pearl Harbor at the time of the attack by the 350 Japanese aircraft (launched from a Japanese fleet of 31 ships), only two U.S. vessels are still located in the harbour, USS *Arizona* and USS *Utah*. Five Japanese midget submarines were launched during the attack, none returned.

The day of the attack of Pearl Harbor was soon regarded as ‘a date which will live in infamy’ (Roosevelt cited in Lenihan 2001: 169) and slogans such as ‘Remember Pearl Harbor’ and ‘Avenge December 7’ together with an image of burning superstructure of *Arizona* became a major ‘national symbol used in accelerating the war effort’ (Lenihan 2001: 172) (see Figure 10.3). Pearl Harbor was designated a NHL in 1965 and in 1989 *Arizona* was designated individually, being ‘the greatest victim of the Pearl Harbor attack and the nation’s focal point for remembering a day of infamy’ (Delgado 1988: 6). The NPS website for the *Arizona* memorial documents that, ‘the remains of the battleship are the focal point of a shrine erected by the people of the United States to honor and commemorate all American servicemen killed during the Japanese attack on Pearl Harbor’.¹⁵

The SRU report included an investigation of the values of *Arizona* and they concluded its significance was not that of an historic vessel as was the *Utah*, but as a war grave (Lenihan 2001: 174-178). In 1961 an appropriate memorial was decided upon, built in 1962 and which still stands today (see Figure 10.3). The memorial’s architect, Alfred Preis ‘meant his design for the memorial to be a reminder to Americans of the inevitability of sustaining the initial defeat, of the potential for victory, and the sacrifices necessary to make the painful journey from defeat to victory’ (Slackman cited in Lenihan 2001: 176-178). In 1986, it was documented that *Arizona* had come to stand for the ‘need for preparedness, not underestimating potential foes, for alertness and for mutual understanding and respect’ and a shrine of pilgrimage (Lenihan 2001: 178).

¹⁵ <http://tps.cr.nps.gov/nhl/> accessed 19 February 2007. *Arizona* is one of only 25 vessels from the war that meet the criteria for NHL designation (Kelly 1991: 8).

With NPS taking over the management of the *Arizona* memorial in 1980 and the public's appetite in visiting the site, management and interpretive issues arose.¹⁶ The managers saw a need to map the shipwreck to assist in the production of a model; to investigate the condition and integrity of the remaining structure, including if any fuel oil was being released; and to determine whether any unexploded munitions were still located on the shipwreck. Archaeological and anthropological investigations in assessing such things as whether a torpedo had hit *Arizona*, and 'analyzing society's myths, symbols and images' associated with Pearl Harbor were deemed worthy of investigation (Lenihan 2001: 160, 180). Of primary importance was the need to consider if and how the shipwreck should be preserved. An Action Plan and a number of objectives were developed to investigate these issues (Lenihan 2001: 157-168). As part of these investigations it was decided not to penetrate *Arizona* given the potential to disturb human remains. Archaeological surveys were carried out in 1983, 1984, 1986, and 1987.

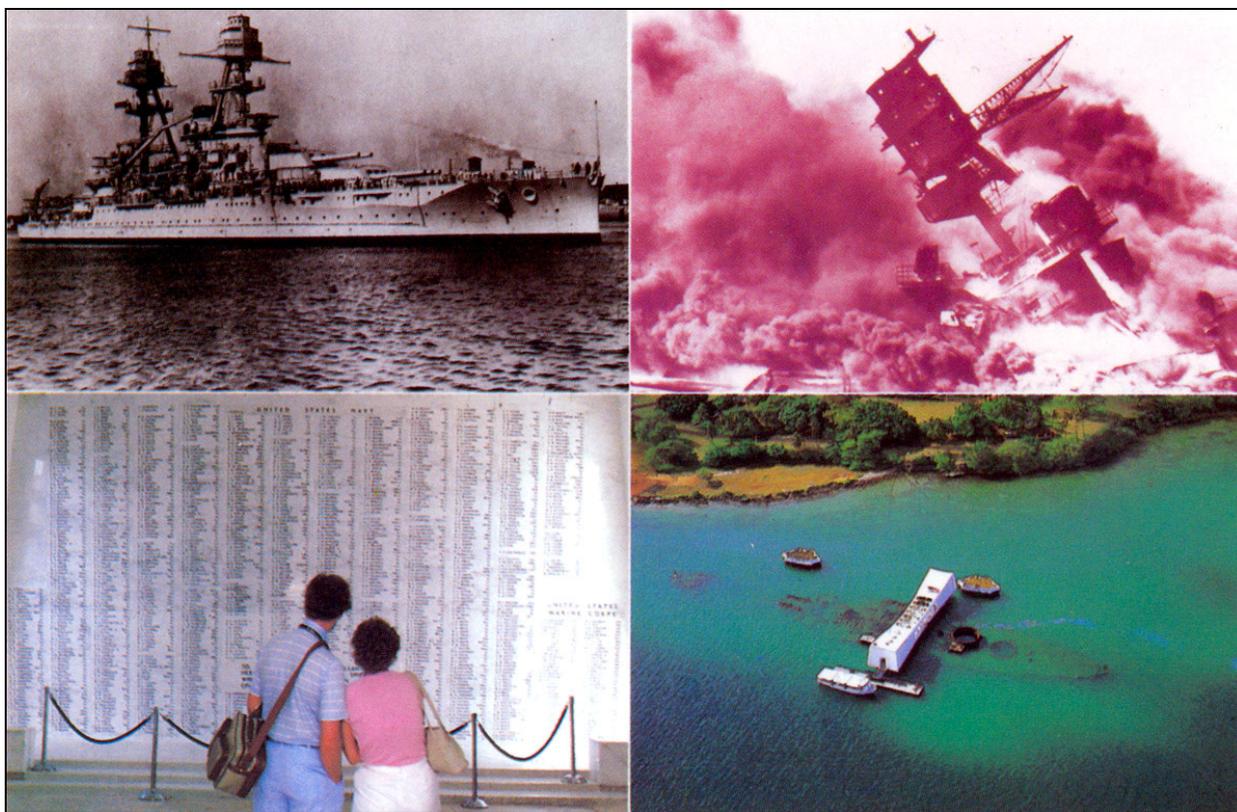


Figure 10.3: A postcard of USS *Arizona* showing the burning superstructure on 7 December 1941, the memorial wall with names of all the crew, and the memorial sitting over the shipwreck (Courtesy, U.S. NPS).

¹⁶ During the 1950s, the U.S. Navy conducted small boat tours to *Arizona* and by 1974 visitation had increased to 500,000 people (Kelly 1991: 4).

While the initial value of the vessel was seen as that of a war grave, and the 1962 memorial was established to commemorate those who were killed at Pearl Harbor, *Arizona* evolved into a political symbol (Lenihan 2001: 178). It has also become a major tourist attraction for Hawaii, and a major focal point in the investigation of preservation techniques of shipwrecks. This final point raises an interesting issue, one that will become more interesting as the metal further corrodes and that is, should shipwrecks be preserved or should they be left to deteriorate?

In his paper, *The archaeology of an icon: the USS Arizona*, Kelly (1991: 9-11) found *Arizona* to be a 'U.S. historic icon', worthy of descriptions that include 'a shrine ... built over a sacred relic which is also a tomb', and the vessel 'fits the definition of a secular icon'. As survivors of Pearl Harbor die, they are having their cremation urns placed in an open gun turret. *Arizona's* values are many and temporal, they can combine official, group and individual values that can be similar, different, tangible and intangible. It has never lost the value as a grave site but it has moved onto revered iconic status in combination with being a political symbol.

Today USS *Arizona* Memorial and associated museum is a popular place to visit by many nationals. On 7 March 2007, I estimated about 5,000 people visited the museum and the memorial. It is promoted as 'a place where the world comes to remember Pearl Harbor and Americans still come to mourn.'¹⁷ While the museum exhibitions have been designed in an unbiased manner, it uses text such as 'hallowed ground', 'U.S. hero', 'that those dead shall not have died in vain' in suggesting elements of a U.S. national identity, even though it is promoted as a site for universal peace (Figure 10.4). There is still an undercurrent of Roosevelt's famous 'infamy' tag and which could be interpreted as the use of a NHL by the U.S. as a political symbol. I therefore contend that the shipwreck, memorial and museum are used in part to provide socio-historical and socio-political biases. This is supported in two papers by Geoff White (2001, 2004).

White (2001) investigates the multi-vocal nature of the *Arizona* memorial and the conflicts that have arisen. It is acknowledged that the memorial is used to illustrate an American identity, a shared peace memorial between Japanese and American communities, and a history of race relations through minority groups being forgotten or misinterpreted at the memorial (White 2001: 10-11). Some of the criticisms of the memorial by various groups have included the presence of Japanese at the memorial; U.S. veterans dislike of the rationalisation of the Japanese 'sneak' attack; references to the Hiroshima atomic bomb in accompanied talks, as well as about its exclusion in the

¹⁷ From exhibition panels at the Arizona Memorial Museum.

exhibitions; and from native Hawaiians wanting to reclaim land and political status lost during colonial periods. White (2001: 10) contends that the ‘arguments over historical representation [at the *Arizona* memorial] are nested in broader social relations of various kinds, especially national, racial and generation identities’. In White’s other paper (2004: 294), he draws parallels between the *Arizona* memorial and the memorials and narratives associated with the attack on the World Trade Centre in New York in 2001, now referred to as *September 11*, to ‘examine the production of emotional meaning in discourse that enters into wider spheres of state power and violence’. He examines the role of personal emotional narratives in the creation of national memory, and the practices used at memorials to inform, educate and commemorate these tragic events. It was found memorials such as *Arizona*, are used politically to further national dominant values, silencing alternative and minority values and meanings.

Figure 10.4: An exhibition panel at USS Arizona Memorial reflecting an element of an American national identity (Photograph by Bill Jeffery, 2007).



White’s interpretations are consistent with my interpretation of the conflicts associated with the values of the Chuuk Lagoon submerged WWII sites, in that the alternative and minority values are being pushed aside by U.S. cultural hegemony. It also supports my argument in the role an investigation of the conflicts in values of submerged WWII sites can have in post-colonial studies.

Bikini Atoll

On 1 and 25 July 1946, two atomic detonations, under the U.S. codename ‘Operation Crossroads’ were carried out in the lagoon of Bikini Atoll, located in the northern part of the Marshall Islands, Micronesia (see Figure 10.2). The 167 islander population were all removed to make way for the tests.¹⁸ 150 U.S., two Japanese and one German ship had been placed in the lagoon including the 43,000 ton U.S. aircraft carrier *Saratoga* and a Japanese flagship for the Imperial Japanese Navy, *Nagato* (of similar size to *Saratoga*). Vice Admiral Blandy (cited in Delgado et al. 1991: 13) reported that the aims of the atomic tests at Bikini Atoll were in ‘seeking to learn what types of ships, tactical formations and strategic dispositions of our own naval forces will best survive attack by the atomic weapons of other nations’. As a result of the atomic explosions, 21 ships were sunk and according to Delgado et al. (1991: 1) they ‘are the remains of a fascinating event in American history, an event with international dimensions, including implications for the restructuring of geopolitical alliances in the latter part of the 20th century’.

The SRU were requested to conduct an evaluation of their historic significance, marine park potential, and diving hazards associated with the sunken fleet in Bikini (Delgado et al. 1991:2). The methodology used in the survey included historical research into the ships and nuclear warfare, intensive site mapping, and video and verbal descriptions of the sites by the archaeologists and historians. The survey found the nine shipwrecks they inspected to be historically and archaeologically significant (Delgado et al. 1991: 4).

With regard to the marine park potential encompassing the shipwrecks, the report enthusiastically endorsed the concept and refers to the precedent of using the World War II shipwrecks in Chuuk Lagoon as a stimuli for economic growth (Delgado 1991: 163). It goes onto state:

Making the sunken fleet at Bikini into a marine park carries with it two inherent concepts that are common to all park lands. One is to preserve something for future generations and the other is to create ‘pleasuring grounds’ [diving tourism] for the present ... The values worth preserving in Bikini are tied to the history and archaeology and the natural diversity of life forms on the ships which now comprise artificial reefs in the lagoon ... The socioeconomic implications of a marine park of this magnitude are considerable. The fact that a displaced society might use the atomic pollution [shipwrecks] of its environment virtually as the focus for its reestablishment and revitalization is also significant as a model beyond the immediate case of Bikini. (Delgado et al. 1991: 163)

The report fulfils many of the objectives of the survey and is very much a culture history study of the dominant U.S. culture and an event that provided a demonstration and a celebration of U.S. power and global leadership (Delgado et al. 1991: 151) (Figure 10.5). In evaluating the significance

¹⁸ Some started returning in the early 1970s.

of the sites, this is only carried out from a U.S. perspective, without any evaluation from a Bikinian perspective. Twelve recommendations were made, all of which centred on the establishment of a marine park. While some of the discussion and recommendations stressed the need for Bikinians to be involved in managing the park (and for some interpretation on traditional history to be included in an associated interpretive centre), nowhere was mention made of Bikinian consultation. The report only acknowledges the invitation of the Bikini Council for SRU to implement the survey and assessment. It acknowledges the displacement of the Bikinians, the ‘nuclear nomads of the Pacific’ (Delgado et al. 1991: 156), with a ‘hope that it will help expand the range of options available to the Marshall Islanders in reestablishing their community on Bikini and other islands impacted from nuclear testing’ (Delgado et al. 1991: 1).



Figure 10.5: Celebrating the end of the Bikini atomic tests in 1946 by cutting the ‘Atomic Age Angel Food’ cake (Delgado et al. 1991: 152).

The disappointing aspect of this survey project was the loss of an opportunity to consider the shipwrecks and the nuclear event as more than ‘indicative of a [U.S.] national achievement of tremendous significance and reflective of a uniquely democratic society’ (Delgado et al. 1991: 151). This has been left to existing anthropological studies which are not referred to in the report (Delgado et al. 1991: 167). One study of the effects of nuclear testing on Pacific Islanders found as the U.S. undertook further tests in other Marshallese atolls that radiation ill effects were being encountered on islanders in Utrik Atoll, 500km east of Bikini Atoll (Tate and Hull 1964: 383). While the U.S. argued the TTPI was designated a ‘strategic area’, allowing the use of proving nuclear weapons, Marshallese and international concerns were raised about American

responsibilities under the TTPI arrangements, which were to 'ensure the well-being of the peoples and to conserve the natural resources of the territory' (Tate and Hull 1964: 385).

SRU's investigations were an ideal opportunity for the study of these shipwrecks in a post-processual framework, to be inclusive of marginalized voices in an assessment of the different values of the submerged WWII sites and event, and incorporating some social theories. This would have allowed for the existing outcomes to be have been achieved, but not as the dominant cultural outcomes, as it would have included Bikinian views, and have been of greater value to researchers of the beginning of the nuclear age and its impact on all people. From a heritage management perspective, given the ownership of the shipwrecks was transferred to the Bikinians along with the live munitions, oil leaks and radio activity, a most useful contribution would have been a discussion on how they regard the significance of the sites and their ongoing management.

In 1996, the shipwrecks in Bikini Atoll were opened up for tourist diving, quickly becoming known as a 'one of the ten best scuba diving destinations'.¹⁹ In 2006, the people of Bikini Atoll filed a lawsuit against the U.S. government and sought \$561,036,320 compensation for taking of their lands and property damage.

Guadalcanal

The Solomon Islands comprise a number of densely wooded volcanic islands in the south-western region of the South Pacific. Guadalcanal Island is one of the larger islands, containing the city of Honiara, the capital of the Solomon Islands. The country has a current population of about 500,000 with over 60 indigenous Melanesian languages spoken. The islands are known to have been occupied for about 4,000 years before the British claimed the region in 1893. In 1978 the Solomon Islands became an independent nation. During World War II, Japanese south-eastern Pacific expansion included the landing of troops and the construction of an airstrip on the island of Guadalcanal in June 1942.

To the U.S. and its allies, this Japanese expansion meant they were potentially looking at invading New Guinea, Australia and perhaps even U.S. bases in New Caledonia (Ballard 1993: 14). To American strategists, a successful U.S. retaliation at Guadalcanal could be 'the first step in the reconquest of Japan's Pacific gains' (Ballard 1993: 16). The first battle to recapture Guadalcanal, called the Battle of Savo Island took place between 7-9 August 1942 and was a major loss for the

¹⁹ <http://www.bikiniatoll.com/home.html> accessed 15 February 2007.

U.S.: four heavy cruisers were lost in what has been described as ‘the most humiliating defeat ever suffered by the U.S. Navy’ (Ballard 1993: 16). At the end of a series of battles, lasting until 1 December 1942, a total of 15,000-20,000 personnel were killed at sea, 65 Japanese, 44 U.S., one Australian and one New Zealand vessels were destroyed and sunk (a further 154 Japanese and 37 U.S. vessels were damaged), and 1,120 Japanese and 330 U.S. aircraft destroyed (Maharaj 1999: 7). Ballard (1993: 12) regards the battles as ‘some of the bloodiest and most pivotal naval battles of the Pacific war’. In February 1943, Japanese forces retreated and the U.S. central Pacific Island hopping offensive commenced.

Much of the fighting was at sea between Guadalcanal Island and the Florida Islands in an area that became known as Iron Bottom Sound, so termed due to the large number of iron ships lying on the seabed. After the war, Japan salvaged some of the exposed military remains and in the 1960s and 70s, Australian and New Zealand divers bought salvage rights to the shipwrecks (Drew 1998: 72). Guns and munitions have also been recovered by Solomon Islanders to be used in civil unrest (*San Francisco Chronicle* 19 June 2000). Today, the now independent nation of the Solomon Islands regards the shipwrecks as ‘national treasures’ and export of shipwreck artefacts have been made illegal (Drew 1998: 74). It is regarded as the only ‘heritage’ legislation that has been enacted in the Solomon Islands (Roe, David 2007 pers.comm.). Salvage and artefact recovery have taken its toll on the integrity of the submerged WWII sites, but it is reported that these activities are now less pursued (Drew 1998: 72). They are valued as an economic resource to the Solomon Islands’ government and tourist operators.

Robert Ballard (1993) implemented a survey of the submerged WWII sites in *Iron Bottom Sound* in 1992 and located 13 shipwrecks. The aims of his survey were to ‘bring back images that would fill out the story in the history books, to mark and memorialize this great submarine battlefield, to make dead ships live again’ (Ballard 1993: 199). His book includes many spectacular photographs and artistic impressions of the shipwrecks and he concludes with a few pages on making the dead ships live again by focusing on Japanese and U.S. survivors of the battles at Guadalcanal. They tell of their great reluctance in coming back to the place where so many of their comrades were lost. Samuel Morison, the U.S. Navy’s historian has reported: ‘Guadalcanal is not a name but an emotion’ (Ballard 1993: 211). It is also a place like Chuuk where Japanese veterans and relatives still return to commemorate the remains of comrades and family members (Ballard 1993: 100). A Japanese memorial on Mount Austen, inscribed in both Japanese and English provides a sense of healing reconciliation to one of the U.S. war veterans who accompanied Ballard (1993: 211), but

which the U.S. government opposed (Roe, David 2007 pers.comm.). In 2002, a new U.S. monument was established to commemorate the 50th anniversary of the Guadalcanal battles.

Another study of the Iron Bottom Sound submerged WWII sites was conducted by Russell Maharaj (1999). Contracted by the Solomon Islands' government to carry out a contamination risk assessment of submerged WWII sites in the coastal and marine environment, he found an estimated total of 446,517 tons of ships lying in Iron Bottom Sound.²⁰ He found the submerged WWII sites were located in various depths to 1,225 metres, with 10 of the 52 known sites in the shallowest range of 0-100 metres (Maharaj 1999: 18). The report noted the risk of contamination from oils, heavy metals, paints and metals from munitions, but due to a lack of data could not quantify the degree of contamination (Maharaj 1999: 22). It was recommended further studies should concentrate on the submerged WWII sites in the 0-100 metre depth range as they were more likely to be impacted by people and storms and deteriorate at a faster rate (Maharaj 1999: 24).

Civil unrest continues on Guadalcanal, resulting in some deaths and destruction of property. It is known that some local businesses and communities have benefited economically from the tourism industry related to the submerged WWII sites, more so before the commencement of the unrest. Some Solomon Islanders have blocked access roads leading to submerged WWII sites demanding a fee—which is considered to be local management practices for the sites (Drew, Terry 2007 pers.comm.). Tourist divers continue to espouse the aesthetic values of the submerged WWII sites off Guadalcanal.²¹ However, little more is known about the value of the sites to Solomon Islanders and their site management practices. Much more has been written about the general impact of the war on Solomon Islanders and how they remember the war. Little or no reference is made on the value of the submerged WWII sites, or their potential as mnemonic devices in remembering the war (see Lindstrom and White 1990; Lindstrom and White (eds.) 1994; White 1991; White and Lindstrom (eds.) 1989, 1997). In her Master's thesis on the *Local Perceptions on WWII material and the implications on Cultural Heritage Management and Archaeology* in the Solomon Islands, Erika Stein (2007: 27-29, 38), touched on the local ownership of submerged WWII sites—considered to be related to the tenure of the marine area—and how islanders saw a need for compensation from scuba divers, if they recovered artefacts, or the acquisition of the artefacts as

²⁰ Maharaj (1999: 20) uses a 'short ton' (2,000 pounds, 907 kilograms) value of a vessel's tonnage as compared to a 'long ton' (1,000 kilograms). The difference can be seen in what *Jane's Fighting Ships of World War II* (1989: 184) provides as a tonnage for the Japanese vessel *Kirisima* being 29,330 tons, whereas Maharaj (1999: 26) documents it as 32,156 tons.

²¹ Website for Solomon Islands and Guadalcanal diving www.scubadiving.com/solomon_islands accessed 12 May 2007.

they owned the material. Apart from Drew (1998) and Edney (2006), there appears to be little additional information known on the value and management of the submerged WWII sites in the Solomon Islands.

The contemporary background and use of the submerged WWII sites in the Solomon Islands is not unlike Chuuk, the ships were initially salvaged and in some cases are still salvaged for functional items for islanders' re-use. Diving tourism became a big business and an economic boom for islanders, and foreign style legislation was introduced to help protect the sites against artefact recovery and interference. Further work on the submerged WWII sites has been from a scientific and archaeological perspective as can be seen from the evidence provided earlier in this section, and generally without any consideration of islanders' values and associations with the sites.

As in Chuuk, Japanese war veterans and descendants visit Guadalcanal to recover human remains and implement Buddhist ceremonies but without any known hindrance from the Solomon Island's government. U.S. war veterans similarly visit Guadalcanal to pay respects to their many war dead, a different situation to Chuuk. The antagonism from the U.S. government over a Japanese memorial which in this brief analysis as to its origins was not determined, is indicative of the contested and multi-vocal nature in remembering the war. This and other memorials in the Solomon Islands, also reveal a lack of local perspective and relevance to Solomon Islanders and found by Stein (2007: 30-34). A situation similar to that found throughout Micronesia in regard to memorials for Micronesians (Poyer et al. 2001: 336-337).

Conclusions from comparative discourses

The three examples are an interesting combination of war related sites with different values and meanings. USS *Arizona* which is acknowledged as a shrine of remembrance, promoted as a memorial for world peace, but used politically to promote U.S. ideologies, and in so doing, marginalizes alternative and minority voices. I have argued that there are some similar approaches used in Chuuk. Chuuk Lagoon submerged WWII sites are managed and promoted from a dominant U.S. historical and tourism perspective but with no Chuukese historical or social associations. The paradox between *Arizona* and Chuuk is that war remembrances are marginalized in Chuuk. This is highlighted in how the U.S. does not allow diving on the *Arizona* where 1,177 crew were entombed but encourages it in Chuuk, where 4,000 Japanese were killed and where many still remain. The Bikini Atoll submerged WWII sites are not memorials to any war losses. The CRM study of these sites concluded their significance was in the 'demonstration of U.S. power and global

leadership [and] reflective of a uniquely democratic society' and as 'pleasuring grounds' for tourists (Delgado et al. 1991: 151), and in so doing marginalized Bikinian impact of the atomic bombs.

The Solomon Islanders' values and uses of the Guadalcanal submerged WWII sites are similar to that of Chuukese, in a pragmatic way for an economic return. The war memorials in the Solomon Islands highlight the disparity and contested nature of war remembrances between Solomon Islanders, Americans and Japanese, which are dominated by the latter two nationals.

The discussions related to the three different sites and regions all provide supportive evidence that the conflicts in the values of the Chuuk Lagoon submerged WWII sites are indicative of a post-colonial perspective of the societies involved. The comparative examples have therefore provided a useful critical assessment of this argument and demonstrate that alternative and minority voices and values are marginalized in remembrances and in ongoing site management.

When viewed in context with the ironies associated with the U.S. using some of the 70 World War II NHLs as peace memorials and their objection to the nomination of the Hiroshima Peace Memorial as a World Heritage site, which is promoted and used as a universal peace memorial, it effectively highlights the U.S.'s neo-colonial discourse in regard to the heritage management of war related sites.

Chapter 11: Conclusions

Thesis arguments

This research has shown that conflicts arise from the different values of the Chuuk Lagoon submerged WWII sites, which I argue are a response and a resistance to colonialism, the war, and neo-colonialism. Different values arise from different concepts of heritage, and the way that heritage is valued by the three different groups. Submerged WWII sites are considered by many nations as heritage sites, but this is not the case in Chuuk. Historic sites from colonial periods hold little heritage value to many Chuukese. Heritage in Chuuk are those things that are inherited but are not limited to them, they are cultural practices, the customs and traditions that exist in many ways of living and it can include associated tangible remains. Cultural practices can change, take on new meanings, and they can include practices used in response to colonial administrators. Owning land is a fundamentally important part of Chuukese culture and identity. Land not only provides a major source of food, but a connection to the spirit and ancestral world, and in providing a personal and clan identity. All of these aspects combine to identify Chuukese.

While the submerged WWII sites are used as mnemonic devices for accessing war memories, this research has shown that the submerged WWII sites do not provide a sense of place or belonging for Chuukese. There are many military sites on the lagoon islands that do this, having tangible connections to Chuukese people and the war. While some Japanese use the submerged WWII sites as mnemonic devices to remember their fallen comrades and the war, others choose to forget the painful memories and younger Japanese seem ambivalent. Yet some younger Japanese are slowly starting to take an interest in the sites, which prompt them to think about the futility of war and the need for peace, not unlike the Hiroshima Peace Dome. U.S. war veterans do not revere Chuuk as they do the battlefields of Guadalcanal, Saipan, Iwo Jima, and other sites where American human losses were very high. The Chuuk military base and in particular the submerged WWII sites are remembered as a pay-back for Pearl Harbor, as a demonstration of the power of their aircraft carriers and as a great tactical success in driving the Japanese back to their homeland—as a significant event in winning the war.

Submerged WWII sites are a valuable part of the material remains of human activity. They can provide information about past societies, how and why this material was used, and give meaning to the landscape. The landscape, particularly a war landscape, can contain many different and contested meanings. In a post-processual approach to investigating submerged WWII sites, these meanings, values and conflicts can be interpreted to provide information about current societies, and for their benefit in managing the material remains. In conducting this type of investigation, site surveys in which site identity, integrity, condition and the impact of the various site uses, need to be implemented. Ethnographic surveys, oral histories, investigations into past and present societies and politics, terrestrial site context and contemporary use of sites—while they can be socially intrusive, are non-destructive archaeologically, and considerable information can be gained on current societies for their benefit. This approach contradicts some claims made by commercial operators in excavating shipwrecks, that material left *in situ* will have limited benefit to current societies. To substantiate these arguments I provide a synopsis of my thesis.

Discourses about the submerged WWII sites in Chuuk that suggest they are important archaeological sites that can provide information on a range of war related topics could have been used in approaching this topic. There are also discourses on the management of the submerged WWII sites that identified conflicting values and uses of the sites to the Chuukese, Japanese and Americans. I chose not to focus on the archaeological values of the submerged WWII sites as I wanted to demonstrate that a post-processual approach to UCHM could be of benefit to people today. I argued that submerged WWII sites could be used to investigate contemporary social, economic and political issues, and in this case, that they could be used to investigate the impact of, and resistance to colonialism.

In Chapter 3, I investigated current maritime archaeology practices within a Cultural Resource Management (CRM) framework, primarily in the U.S., and Australia where it is called Cultural Heritage Management (CHM) which acknowledges and values ‘heritage’ as cultural and social practices and not just as ‘resources’. In Australian maritime archaeology as in some terrestrial archaeology programs, the scientific archaeological process inherent in CRM in the U.S. still dominates. I found there was, and still is a great pre-occupation with shipwrecks and the associated artefacts in both countries, partly as Gould (1989, 2000) perceived, due to the need to combat treasure hunters. Little attention was being paid to developing maritime archaeology theory within a heritage management framework, although archaeological theory within CRM and CHM frameworks were well developed (Smith 2004, 2006). In Australia, use was made of the Australia

ICOMOS *Burra Charter* (Australia ICOMOS 2000) to develop specific maritime archaeology guidelines (Henderson 1994), which emphasize the need to conserve the fabric of a place, and privileges fabric and archaeological evidence over ‘the spiritual essence of the place occupied by the physical remains’ (Byrne 1993: 212-213).

I also investigated and argued for a post-processual approach to facilitate the need to research local histories, and past and contemporary politics. This allowed for a less objective, more inclusive approach, including etic and emic observations, and social theories—and which are essential in post-colonial studies. Chuuk’s cultural practices, past and present politics include complexities, differences and paradoxes that I may have missed or misinterpreted. This is compounded by the use of histories and ethnographies that have been largely compiled by non-Chuukese that could have prejudiced my interpretations. My research into the impact of colonialism and neo-colonialism and how this manifests in the values and conflicts of the submerged WWII sites will therefore involve my failings, prejudices and insights, but the constructions I have established will be useful for future work elsewhere and help to provide other insights.

During the pre-colonial and colonial phases in Chuuk, foreign diseases killed many Chuukese. Although colonialism in Chuuk began with the Spanish in 1886, and Chuukese had a number of skirmishes with explorers and foreign traders for at least 50 years prior to this date, it was not until the German colonial phase, that a number of other major impacts were felt. This included the introduction of a whole-of-lagoon chief and non-hereditary chiefs, land alienation, education in a foreign language, poll-tax, a cash-based economy, and missionary intolerances. Japan aggressively followed Germany’s economic imperialistic lead and pursued colonial ambitions in Chuuk, through its intensive immigration although it was primarily for strategic reasons that Japan occupied Micronesia in 1914 (Peattie 1984: 172). Employing a paternalistic and racially exclusive doctrine, Japan set out to ‘turn the Pacific into a Japanese lake’ (Takekoshi cited in Peattie 1984: 179), with the help and aim of its navy in ‘establishing naval hegemony in those waters against the advance of American power’ (Peattie 1984: 180). With Micronesians far ‘outnumbered and unable or uninterested in competing economically with the Japanese’, Peattie (1984: 197) refers to the Pacific War as what saved indigenous Micronesians from losing their identity as an ethnic group. This is an interesting point as it has been noted that Micronesians were able to adapt and not ‘culturally collapse’ during Japanese colonialization and the war (Hanlon 1999: 70). Another colonial regime with some similar doctrines to the Japanese, the U.S. entered Chuuk after the war. They immediately set-out to reorganize the social and political systems to suit them. This was assisted with the largest

and most comprehensive anthropological and sociological studies implemented by the U.S. to that time. It was also the third time in just over 50 years that another language and education system was introduced—a significant factor in power relations in colonialism and ‘detrimental to the cultural integrity’ of the colonized (Perez 2003: 35). Following some external pressure from the United Nations in the 1960s, the U.S. embarked on a political path to free Micronesia in negotiation with Micronesian politicians, who saw the political and economic sensibilities of such a union.

As part of these colonial phases, military preparedness began to be implemented in Chuuk in 1939, but significant war impacts were not felt by Chuukese until 1944. Japan relied heavily on its merchant shipping during war time, as it did in peace time, to maintain Micronesia with migrants, products, military personnel and equipment, as part of its strategic offensive and defensive importance—‘Japanese colonialism depended on seapower’ (Gann 1984: 506). The strategic advantage that Chuuk and Micronesia gave Japan was a major reason for acquiring and developing the islands in 1914 and they were seen as stepping stones to the natural resources of southern countries such as the oil in Indonesia. It also stopped the U.S. in furthering its colonial and strategic ambitions in the region. The destruction of the merchant fleet in Chuuk during the war was a major victory for the U.S., and a major loss for Japan. It was the largest monthly loss of ship tonnage in the war up to that time, and it meant Japan was short of ships to supply other major colonial ports in its war against the U.S. and its allies.

The bombing of Chuuk in February 1944 had a profound impact on the Chuukese, it was seen as the time when the war arrived in Chuuk. For 18 months, Chuukese and many Japanese military and civilians, along with Okinawans, Koreans and people from Nauru suffered greatly from the continual bombing and shortage of food. Japanese cruelty against Chuukese also came out during this period. Many Chuukese were forced from their home islands to accommodate Japanese military personnel. Men, women and children were used as slave labour in constructing military facilities, and in dragging the large guns up onto hill-tops and many died in the process. The guns were never fired as the U.S. bypassed Chuuk Lagoon, annihilating it with over 6,000 tons of bombs dropped over a very small area. As part of the investigation into the colonial phases, I sought out primary documents related to the immediate post-war period, to gain a more immediate and subjective understanding of how the war impacted Chuukese, and to enhance an appreciation of U.S., Chuukese and Japanese relations. U.S. administrators began to investigate whether Chuuk would be suitable as a major fleet anchorage and recreational base and dispossessed Chuukese from villages and islands. It seemed they were not only ‘strangers in their own land’ (Hezel 1995), but invisible in their own land. One of

the first things Chuukese were keen to do when the U.S. military arrived was to get back onto their land and dispossess the Japanese military. I found some Chuukese were effectively dealing with their fourth colonial administrators, even after such a destructive period—an indication of their resilience and adaptability. The approach used in investigating the colonial and war phases was not in the identification of which phase had the most impact on Chuukese, but in understanding the similarities and differences in impact, and Chuukese reactions.

Knowledge about the range of submerged WWII sites was gained through a long, comprehensive process of site surveys, which were discussed in Chapters 7 and 8 (see also Jeffery 2006b). This information was used in identifying the sites and in gaining an understanding of their nature, integrity, and condition. It was a significant factor in substantiating site values and conflicts. A number of new directions of research, and sites, were found during this process. It was found that some shipwrecks could start to collapse in the next 10-15 years which is being further investigated through the Earthwatch funded project and other avenues, given the potential for destructive environmental consequences and debilitating economic returns if some do collapse, particularly those that contain a large quantity of oil. There are conservation techniques that could slow down and even stop the corrosion which would require considerable ongoing financial support. The field work also revealed the differences in the use of the terrestrial and submerged WWII sites as mnemonic devices in war remembrances. Some of the remains of the terrestrial military facilities have been appropriated as homes or as foundations for homes, but many are just left for the jungle to reclaim.

Chuukese, Japanese and American values of the submerged WWII sites were investigated in Chapter 9. It is acknowledged by the three communities that tourism activities related to the submerged WWII sites, as pleasure grounds, are of economic benefit to Chuuk, but to many Japanese it conflicts with and is a disturbing activity on their open war graves. Other economic but contradictory activities implemented by some Chuukese, as dumps containing munitions and places for dynamite fishing, further highlight the disparity of 'heritage' amongst the three communities, and are indicative of how some Chuukese have made practical use of war remains. 'Heritage' to Chuukese is a dynamic cultural practice, to be found in their customs and traditions that are inherent in all forms of daily life. These intangibles may use tangible material culture as links in creating memory, and accessing stories and they remain, as in the Japanese case, the most prominent focus of 'heritage' in Chuuk. It was considered that all societies value both tangible and intangible forms of heritage, but tangible heritage has become the dominant focus for Euro-American programs that have been

transported to many countries, such as in Chuuk. Recent initiatives are starting to address and in some cases surpass the imbalance in recognizing the importance of intangible heritage. For example, the *UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage 2003* was entered into force on 20 April 2006 and by the 18 January 2007 it had been ratified by 73 countries.¹ This is compared to the *Convention on the Protection of the Underwater Cultural Heritage 2001* that has after four years, only 15 countries (not Japan, USA or FSM) to have ratified it (it needs 20 before it comes into force).² An analysis of this convention found it to be of marginal applicability and benefit to Chuuk (see Appendix 5) (Jeffery 2006a).

In Chapter 10, I have used the background gained from the preceding chapters to investigate the meanings behind the conflicts in the site values and uses by Chuukese Japanese and Americans. I argue that these conflicts are associated with complex, and ongoing colonial and neo-colonial discourses between Chuukese, Japanese and Americans, including the issue of war reparations. I also investigated the discourses related to USS *Arizona*, the Bikini Atoll and the Guadalcanal submerged WWII sites and concluded that they are contested, emotionally and politically charged which is related to their highly sensitive nature—as World War II remains with multi-vocal meanings. What is prominent is the dominance of the Euro-American scientific process in assessing value and implementing management, and indicative of neo-colonialism. The discourses also convey the continued antagonism between three communities (Japan, U.S. and Micronesia) over the war, war compensation and the contested nature of war memorials. There are similarities and differences with Chuuk that help to provide evidence of socio-historical and socio-political issues as outcomes in their investigation, including provision for a critical perspective to view colonialism. They reinforce my contention that the conflicts associated with the Chuuk discourses provide evidence of colonialism and neo-colonialism and in the resistance to them. In a small way it is equivalent of Hezel's applied anthropology in 'understanding the dynamics of contemporary Micronesian societies' (Kiste 1999: 452).

Value of this study

This study has highlighted the preoccupation of U.S. maritime archaeology with shipwreck fabric as the dominant focus, which is used to provide the dominant cultural perspective in a culture history or cultural process framework, even where the region being studied is conducive to alternative approaches. This has not changed much in 20 years. What has changed has been in the development,

¹ Only one Pacific Island/south-east Asian country has ratified it, being the Philippines.

² Countries to have ratified this Convention are Panama, Bulgaria, Croatia, Spain, Libyan Arab Jamahiriya, Nigeria, Lithuania, Mexico, Paraguay, Portugal, Ecuador, Ukraine, Lebanon, Saint Lucia and Romania.

use of and discussion on more scientific techniques: the higher resolution side scan sonar, the multibeam sonar and Global Information System (GIS), to name a few—the scientific objective approach used in processual archaeology and given much credence by government CRM agencies. Gould (2000: 333) called for ‘further improvements in technique’, which is of much value in the right context. In regard to his comments about ‘further improvements in theory’, this has not progressed to the same extent. Chris Tilley commented on the use of GIS which is pertinent in this study: ‘GIS has become very popular lately, everyone seems to want to do it, but basically it can only produce an abstract knowledge. It can’t reproduce a sense of place acquired through being *in place*’ (cited in Bender 1998: 81). It is partly in this context where this study has made some important contributions in the discipline of UCHM. The study included a range of methods in gaining an appreciation of who maintains a ‘sense of belonging’ to the submerged WWII sites. This included many participant observations in Chuuk, the collection of oral histories from Japanese nationals, participation in email chat rooms, through questionnaires, and an examination of war and post-war related documents that provided broad socio-historic and socio-political views of Chuuk. Other significant contributions to the discipline have been made from the types of surveys implemented, including the nature of the underwater surveys where in combination with an emic perspective, it has been possible to provide information about societies and their relationships, without employing any destructive site analysis. The terrestrial site surveys and other regional site investigations also played an important role in investigating comparative values and conflicts from a wider perspective.

This study has looked into the management of the sites from a wider perspective, particularly from a perspective of marginalized voices, namely the Chuukese. In doing this, it has investigated the meanings behind the site values and their conflicts and including the natural and cultural fabric. Much of the past and current U.S. and Australian maritime archaeology is dominated by professionals using research designs, scientific practices and community consultation and oral history. Greer (1996: 203) discusses the community consultative process in the context of implementing community-based archaeology, which has played a valuable role in this research. Rather than community consultation being a *reactive* process, responding to the agendas of archaeologists, community archaeology requires *interactive* community consultation, where the community addresses the questions to be asked and which is aimed at empowering communities in the expression of local identities (Greer 1996: 222-224).

This investigation of the Chuuk Lagoon submerged WWII sites has shown that the value and use of the sites from a Chuukese perspective, and from a Japanese and American perspective as well as how

they imposed their values on the Chuukese, has provided an understanding of Chuukese identity, and the impacts of colonialism in Chuuk. It provides concepts of empowerment for the Chuukese in constructing local identities using foreign material culture, as well as empowering them to manage these sites but not with a marginalized voice. Greer (1996: 234-237) cites the need for cooperative anthropological studies in these types of investigations, particularly 'where communities have suffered most and such information is ... scattered over generations.' I have investigated and critiqued in part, other anthropological studies of Clyde (1967), Gladwin (1950), Hanlon (1998, 1999), Hezel (1983, 1995), Poyer et al. (2001), Useem (1945) and Lindemann's (1982) oral histories of Kimiuo Aisek, to provide information about the impact of the war on survivors, in addition to my own consultation with survivors and descendants, but much more work can be done. This research, while focussed and theoretically orientated toward a post-processual approach to UCHM, has included the disciplines and theory of anthropology and archaeology. Part of the value of this study has been in highlighting areas of overlap and areas where academics and practitioners from these disciplines could work together for common goals.

In arguing my theory that the conflicts in the values provide a post-colonial perspective, I found similar approaches in the discussion by Bender (1998, 2001) and Saunders (2001) on the contested nature of the *Stonehenge* and 'Western Front' landscape. The Chuuk Lagoon military landscape is an example of a complex and contested landscape: it has a number of meanings for the Japanese, Chuukese and Americans. During the war, the military landscape overlaid, dominated, and in some cases destroyed Chuukese traditional landscapes—a landscape from which Chuukese gained a spiritual, personal and collective identity. The different meanings in today's military landscape can therefore occupy different time periods, and different individuals and groups can be involved with and emerge from the landscape (Thomas 2001: 182). Chuukese ambivalence about a tourism industry on their land, and in how the jungle is left to reclaim Japanese military sites could be associated with Chuukese re-establishing their traditional meanings in the landscape, and in regaining their identity. It is also possible that they are using the landscape to assert power in the relations with others. The contested terrestrial landscape is an area that I did not fully investigate but it would seem a profitable area of research. The submerged WWII landscape has many similar and different contested meanings, associations and power relations, which I have investigated more comprehensively to ascertain what lies behind the conflicts. While some Chuukese remember the submerged WWII sites as the time when the war started in Chuuk and a time of death for many Japanese, others use and value them only for their economic and practical reasons. They are not ignored as are the landscapes associated with the terrestrial military sites, but their practical uses,

which are in conflict with Japanese and U.S. values, suggest as in the case with the terrestrial sites, affirmations of power in relations. Being located in deep water, away from traditional rights to submerged reefs, the submerged WWII sites are not associated with any customs, traditions or cultural practices in relation to fishing or the lagoon, but they could become so.

I have used a multi-vocal and contemporaneous approach in investigating the Chuuk World War II submerged military landscape to investigate conflict, and to see if it provides a perspective of colonialism in Chuuk. I argue the same bureaucratic hegemonic approach and values used by English Heritage in managing Stonehenge (Bender 1998: 114-131) are used by the U.S. government in managing the Chuuk Lagoon submerged WWII sites. I contend that site legislation and the protected monuments symbolize and promote particular national ideologies (Fowler 1987: 240; Smith 2006: 5). In the Chuuk case, I have discussed how inappropriate this is, given it is U.S. legislation. An outcome of using this legislation in promoting elements of national identity is that it promotes a static bureaucratic identity for the people associated with these places. But the majority of people associated with these places are not bureaucrats or Americans. The current approach is not multi-vocal or representative of the many values which these places contain, nor does it allow for the 'fluidity of identity' (Bender 1998: 6). In the end what is achieved is a 'political landscape of unequal power relations' (Bender 1998: 36) which in Chuuk includes domination, resistance and appropriation and is strong evidence of colonialism and neo-colonialism. To use Tilley's metaphorical analysis of Stonehenge in relation to the Chuuk Lagoon submerged WWII sites, they are a doorway, with 'new ways of understanding, illuminating things,' into a post-colonial study in Chuuk, as could other colonial sites be used in other parts of the world (cited in Bender 1998: 83). An example can be found in Sri Lanka where I worked as part of a multi-national group in 2003-2005, financed and led by the Netherlands government, where excavation of the Dutch VOC shipwreck *Avondster* (1659) focused on the Dutch trade in the Asia region (Green et al. 1998; Parthesius et al. 2006). Although local capacity building has been significantly enhanced, the research has maintained a culture history approach in investigating Dutch trade and shipbuilding. Another approach for Sri Lankan work in the future could be in a post-processual manner and where for example, how the Dutch influenced the change in the Sri Lankan caste system to suit colonial requirements would be of great interest (Bastin, Rohan 2004 pers.comm.).

I have also explored as does Bender (1998: 115-131) the use of power in site management. In the Stonehenge case this was obtained in part from archaeological knowledge and interpretation by the state and academia in managing the sites (Bender 1998: 117-118). In the Chuuk Lagoon case, power

does not come from state-based or academic archaeological knowledge of these sites, although general anthropological research was implemented by CIMA in 1947 and subsequently thereafter. There has been no work in assessing the archaeological value of the Chuuk Lagoon submerged WWII sites. The U.S. uses its globalized CRM discourse as its power in combination with its ongoing political and economic union, from a dominant position with the FSM. Using U.S. site protection legislation and a CRM scientific, objective approach, the U.S. remade the values of the sites. Some Chuukese have always maintained an economic interest in the sites, from metal salvage to artefact salvage to dynamite fishing. This is seen as a pragmatic use of the sites for some relatively large financial gains and which is interpreted to be a resistance to U.S. power and neo-colonialism. As a consequence, in a country where nearly a third of the community are living below the poverty line, the Chuuk government with U.S. support, appears powerless to stop the more destructive and the life-threatening uses of the sites. The other U.S. demonstration of power comes from the publications on the submerged WWII sites. Only recently has there been a publication from a Japanese perspective and none from the Chuukese, although some, from former U.S. nationals living in Chuuk. The most widely read are from U.S. authors that provide considerable popular historical and site information from an American perspective which are regarded as the paramount knowledge on the subject.

I argue that current treatments of the Chuuk Lagoon submerged WWII sites, like those at Bikini Atoll, and USS *Arizona*, are illustrative of American national identity. The same can not be said about the Chuukese just because the same heritage legislation is used in Chuuk. The U.S. has acknowledged similar problems in applying the World Heritage Convention to sites such as the Hiroshima Peace Dome, which convention professes to be the world-wide agreement on 'reflecting regional cultural identities' (ICOMOS 2004).³ Perhaps in 10, 20 or 50 years time, when all the Chuukese war survivors have passed away, the submerged WWII sites may become part of the folklore of Chuuk in much the same way Gallipoli is for Australians today. Until that time Chuukese values of the submerged WWII sites need to be factored into site management, in the same way Japanese values need to be. I am not advocating that dynamite fishing should be permitted or that diving tourism should be allowed inside the I-169 submarine that contains human remains, or anywhere else, but rather that all values and conflicts should be placed on the negotiating table. Dynamite fishing on the submerged WWII sites is about acquiring fish for food and some financial gain that has no traditional ownership impediments as do the natural reefs. An alternative may be to

³ More general U.S. resistance to the World Heritage Convention has also been demonstrated in the U.S. Senate, and in the elimination of U.S. financial contributions in the 2001 financial year to the World Heritage fund (Araoz, 2002; Reap 2002).

establish another ongoing source of fish and money or to consider compensation for the Chuukese, similar to that proposed by the *Coalition of Rainforest Nations* for rainforest conservation.⁴

This study has shown that submerged WWII sites can be investigated to reveal more about societies than is inherent in the fabric or tangible remains. It has also shown that they can reveal information about past and contemporary societies, their interactions, adaptations and identities. Identities have been shown to be dynamic, as cultural practices are, and in the same way site management should be dynamic. In 2006, I was informed by Arimichy Rudolph that Chuukese *Itangs* were only passing on their special speech and lores if they received financial compensation. For some time, I was disappointed in this development, thinking that these traditional lores and speech should be passed-on without financial compensation, but then I thought more about the matter. In America, Australia and many countries around the world, equivalent people receiving financial remuneration would include teachers, scientists, historians, linguists and others who have obtained and hold special knowledge. Additionally, people pay to visit museums, historic buildings, dive shipwrecks and buy books about tangible and intangible heritage. Chuukese should be able to receive similar payments for collecting and maintaining their special knowledge and ensuring aspects of their cultural heritage are passed on. This highlighted to me how easy it is to take a global or neo-colonial view of another dynamic cultural practice.

In addition to the site and thematic specific topics I have referred to in this chapter, this research has opened a door to a new way of researching submerged WWII sites and understanding past and contemporary societies, not just from a social perspective but from an economical and political perspective. This is what makes this approach interesting, exciting and valuable. Submerged site research is relevant to contemporary societies—in addressing multi-layers of value over time in which meaning can be interpreted. This approach can be applied anywhere in the world but it has particular relevance in marginalized societies where there is a different cultural practice or value of heritage to the dominant value and management practice. It could also be a valuable approach to take in a regional context rather than just applied to selected sites or localities. The potential that would be gained from analysing comparative data associated with World War II over a large area containing a rich and diverse cultural background such as the Pacific region, could be very revealing in a number of ways and contribute to a better understanding of Pacific societies and their relationships.

⁴ A discussion on compensation for not logging in the Indonesian rainforest can be seen at <http://news.mongabay.com/2006/1116-indonesia.html> accessed 12 May 2007.

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Personal Communications

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- Mr Dickenson Dois, State Historic Preservation Officer, Chuuk HPO, Weno, Chuuk, FSM.
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Mr David Welle, State Historic Preservation Officer, Chuuk HPO, Weno, Chuuk, FSM.

Appendix 2: Questionnaire for Chuuk HPO staff and COM students on heritage issues in Chuuk

Significant sites in Chuuk

What do you consider are the most significant aspects in Chuuk's history, eg. cultural practices, traditions, folklore, historic and/or prehistoric sites

Name four of the most significant Chuuk cultural practices, customs, traditions, folklores or sites

Name four historic/prehistoric sites that you consider are the most significant in Chuuk's history.

Are traditional sites more significant than either: Spanish, German, Japanese, American—why? If not—why?

What type, or what name sites related to World War II do you know of?

Are the World War II shipwrecks and aircraft significant in the history of Chuuk—please explain?

Are the World War II land sites significant in the history of Chuuk—please explain

How should World War II sites be managed? Forgotten? Preserved? Promoted? Interpreted?

Is tourism of the World War II sites an important industry to Chuuk

Can traditional sites, traditions, folklores be an important part of Chuuk's tourism

Are there any other significant sites, cultural practices, customs, traditions, folklores not mentioned here that you would like to mention

Appendix 3: Questionnaire for diving tourists on their perceptions of the submerged WWII sites

Questionnaire about the Truk Lagoon shipwrecks

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The purpose of this questionnaire is to obtain details on the Truk Lagoon shipwrecks, in particular your perception of them as historic sites, their attraction as a diving destination and the management practices employed on the sites. This information will be used by Bill Jeffery as part of the research required for his doctoral project at James Cook University in Queensland, Australia on assessing the significance of the shipwrecks and the way in which they could be managed. This information could also assist the Chuuk and USA governments in their activities on the sites.

No personal details are required. This information will be treated in confidence and will only be used as a research tool. You can leave this form with the dive operator, post or email it. Forms should be returned by August 31, 2002. **Thank you for your help.**

No. of dives on the Truk Lagoon shipwrecks:

What Truk Lagoon shipwrecks have you dived and when (eg. *Fujikawa Maru*, 1988, 1999)

Did you notice any damage / differences on any of the sites from previous dives:

Are there any particular shipwrecks that you preferred to dive and for what reasons:

What attracted you to dive the Truk Lagoon shipwrecks:

What is your level of knowledge of the historical background of these sites:

Did you dive with one of the dive shops or live aboard boats, which one?:

What communities do you consider the shipwrecks have significance to, and for what reasons:

Are you aware of any sites on land in Chuuk that have similar associations to communities:

Are you aware of the interest in the shipwrecks by the Chuukese and/or USA governments:

Are you aware of any management practices used for these shipwrecks:

What is your understanding in regard to the recovery of artefacts from these shipwrecks:

Was the legislative protection of the Truk Lagoon shipwrecks brought to your attention and where and when did this occur?

What was the role of the dive guide that accompanied you:

What do you consider are the priorities in managing the shipwrecks sites:

What type of interpretive facilities would you like to see, and why:

Are you a regular diver of shipwrecks in your country of residence or elsewhere and for what reasons (eg. the ship, marine life, location, etc.):

In comparison to other sites, how would you rate the Truk Lagoon shipwrecks as dive sites and historic sites:

Any other information you would like to provide:

Please pass this questionnaire onto any colleagues / friends / family who have dived the shipwrecks. Further copies can be provided through the contacts at the top of the form.

Thank you again.

Appendix 4

A list of ships sunk or damaged inside and outside Chuuk Lagoon,
from four primary and four secondary sources.

Name	JANAC	NAD	JM116	JM173	Bailey	Lindemann	Carrell	Graham
Agano	16/2/44*	17/2/44	16/7/44	17/2/44*	16/2/44*	16/2/44?	17/2/44*	
Aikoku Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
Akagi Maru	17/2/44		17/2/44	17/2/44	17/2/44*	17/2/44*	17/2/44*	17/2/44*
Akikaze (D)					17/2/44			
Akashi (D)			17/2/44	17/2/44	17/2/44	?		
Akitsuushima (D)		17/2/44*	17/2/44	17/2/44*	17/2/44	?		
Amagisan Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
CHA 20 Auxiliary Submarine Chaser (D)			17/2/44	17/2/44	17/2/44	?		
CH 24, Submarine Chaser	17/2/44*		17/2/44*	17/2/44*	?/2/44	17/2/44*	17/2/44*	17/2/44*
CH 29, Submarine Chaser	17/2/44		17/2/44*	18/2/44*	17/2/44	?	18/2/44*	17/2/44*
CH 34, Submarine Chaser								3/7/44
CHA 38, Auxiliary Submarine Chaser	30/4/44		30/4/44*		30/4/44*		30/4/44	30/4/44*
CHA 46	5/4/44				5/4/44			
CHA 66, Auxiliary Submarine Chaser	7/8/45		7/8/45		7/8/45		7/8/45?	7/8/45
Choko Maru No.2	12/1/44*						12/1/44	
Ei-sen No. 761					?	?		30/4/44
Fujikawa Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
Fujisan Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
Fumizuki	17/2/44		18/2/44	18/2/44	18/2/44	18/2/44	18/2/44	17/2/44
Futagami					After '46	?		
Gosei Maru	17/2/44		17/2/44	17/2/44	18/2/44	17/2/44	17/2/44	17/2/44
Gyoten Maru	17/2/44*		17/2/44	17/2/44*	17/2/44*	?*		
Hagoromo Maru (D)					18/2/44	?		
Hakachi (D)			17/2/44	17/2/44*	?/2/44			
Hakushun Maru+			17/2/44	17/2/44				
Hanakawa Maru	17/2/44		17/2/44	17/2/44	18/2/44	17/2/44	17/2/44	17/2/44
Harusame (D)					17/4/44	?		
Heian Maru	17/2/44	17/2/44	17/2/44	17/2/44	18/2/44	17/2/44	17/2/44	17/2/44
Heiyo Maru	17/1/43*		21/2/43*				21/1/43*	
Hino Maru No. 2	30/4/44	30/4/44	4/4/44		3/5/44	1/5/44	4/5/44	30/4/44
Hoki Maru+	17/2/44		17/2/44	17/2/44	18/2/44	17/2/44		17/2/44
Hokuyo Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
Hoyo Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
I-10 (D)			17/2/44	17/2/44	17/2/44			

I-33								26/9/42
I-169	4/4/44		4/4/44		4/4/44	4/4/44	4/4/44	1/5/44
I-174	29/4/44*		13/4/44*		30/4/44?		12/4/44*	
I-362			15/2/45				13/1/45*	
Jozan Maru			19/2/44*				17/2/44	
Kaijo Maru No. 2	1/3/42*		5/3/42*				5/3/42*	
Katsurigisan Maru	7/1/44		4/1/44		7/1/44		4/1/44*	4/1/44
Katori	17/2/44*	17/2/44	17/2/44*	17/2/44?	17/2/44*	17/2/44*	17/2/44*	17/2/44*
Kazahaya	6/10/43*		6/10/43*				6/9/43*	
Kensho Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
Kikukawa Maru	7/10/43		7/10/43		7/10/43	7/10/43	7/10/43	7/10/43
Kiyosumi Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
Koei Maru	2/9/42*		21/9/42*				21/9/42*	
Kosei Maru	17/4/43*						8/4/43	
Kotohira Maru			15/4/44		15/4/44		15/4/44	15/4/44
Kunisi Maru			17/2/44*	17/2/44*				
Maikaze	17/2/44*		17/2/44	17/2/44*	17/2/44*	17/2/44*	17/2/44*	17/2/44*
Matsukaze (D)			17/2/44	17/2/44*	18/2/44	?		
Matsutan Maru (Shotan Maru)	17/2/44		17/2/44	17/2/44	18/2/44	?	17/2/44	17/2/44
Minsei Maru		30/4/44			30/4/44			30/4/44
Momokawa Maru	17/2/44		17/2/44	17/2/44	18/2/44	17/2/44	17/2/44	17/2/44
Muko Maru	13/11/43*						12/11/43*	
Mutsure	2/9/43*		2/9/43*				2/9/43*	
Nagatsuki	6/7/43*	17/2/44						
Nagano Maru	17/2/44		17/2/44	17/2/44	18/2/44	17/2/44		17/2/44
Naka	17/2/44*	17/2/44	17/2/44*	17/2/44*	17/2/44*	17/2/44*	17/2/44*	17/2/44*
Namikachi (D)						?		
Naniwa Maru	3/8/42*		3/8/42*					3/8/42*
Neikai Maru			27/1/44*				27/1/44*	
Nikkai Maru			26/11/43*				26/11/43*	
Nippo Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
Nisshin Maru								20/11/42*
Nowake (D)					17/2/44			
Oite	17/2/44		17/2/44*	17/2/44*	18/2/44	18/2/44*	17/2/44	17/2/44*
Okaze (Okikaze)		17/2/44						
Ojima			7/10/43		7/10/43	?		7/10/43
Reiyo Maru	17/2/44		17/2/44	17/2/44	19/2/44	?	17/2/44	17/2/44
Rio de Janeiro Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
RO-42(D)			17/2/44	17/2/44	17/2/44*			
San Francisco Maru	17/2/44		17/2/44	17/2/44	18/2/44	17/2/44	17/2/44	17/2/44
Sansei Maru			15/9/43*				15/9/43*	
Sapporo Maru		30/4/44	4/5/44		4/4/44?		4/5/44	30/4/44
Seiko Maru	17/2/44		17/2/44	17/2/44	18/2/44	?	17/2/44	17/2/44
Shigure (D)			17/2/44	17/2/44	17/2/44	?		
Shinkoku Maru	17/2/44		17/2/44	17/2/44	18/2/44	?	17/2/44*	17/2/44
Shinwa Maru						?		
Shonan Maru No.15					17/2/44	?	17/2/44	17/2/44

Appendix 5

Published as a chapter:

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Introduction

This essay will look at legislation pertaining to, and the management of, underwater cultural heritage (UCH) in the Federated States of Micronesia (FSM) in association with the proposed management regime under the UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001.

In general, the FSM, through its state and national governments and the US federal government implements a coordinated program that has not been greatly successful for a number of reasons, and this is outlined in the essay. The FSM, through Chuuk State, has legislation that dates back to 19701 and this was innovative legislation for the 1970s because of its 'cultural tourism' provisions but it hasn't kept pace with the increase of tourists and it needs a review.

Much of the work on UCH in the FSM has centred on shipwrecks and that continues to be the case, although it is slowly changing. While shipwrecks do not reflect the dominant culture inhabiting and governing the FSM - the indigenous culture - foreign perspectives have dominated, essentially because of the foreigner-driven diving industry. The introduction of the UNESCO Convention 2001 is timely in terms of assisting FSM in pursuing a program of managing and conserving its wider UCH and how this can be done in FSM is explained in this paper.

1. UCH Law and Practice in the Federated States of Micronesia

1.1 Background

The Federated States of Micronesia (FSM) is a newly formed nation comprising the island states of Yap (9°30'N; 138°E) in the west and Chuuk (Truk), Pohnpei and Kosrae (5°20'N; 163°E) in the east. It covers an area in the Western Pacific of over three million sq km, of which only 702

sq km is land (a total of 607 islands) and is home to about 110,000 people. While small in size from the point of view of usable land, its size in terms of jurisdiction over the sea and seabed is large, given the coastline/base-line for measuring the territorial sea/EEZ is 6,112 km in length. As is the case with other Pacific island nations, the FSM has a valuable role to play in the protection of UCH.

‘Micronesia’ is a recent (c.200 years) European term given to some of the many tiny islands in the western Pacific Ocean to differentiate them from Melanesia and Polynesia.¹ The Micronesian region includes the group of islands known as the Caroline Islands (the FSM and the Republic of Palau), the Republic of the Marshall Islands, Guam, the Commonwealth of the Northern Mariana Islands, the Republic of Nauru and the Republic of Kiribati. These islands have been occupied for more than 2,000 years. Although the Spanish were the first foreigners in the greater Micronesian region (Magellan first crossed the Pacific and arrived in Guam in March 1521), it was the Portuguese that first visited the FSM, namely Yap in 1525. Through an arrangement with the Portuguese, the Spanish developed an interest in this region.² Subsequently Spanish, English, French, American, Russian, German and Japanese explorers, traders, whalers, and missionaries (in some cases with devastating impact on the health of the indigenous occupants) visited the Micronesian islands. However, it was not until 1886 that the Spanish established a ‘formal’ presence and rule over Micronesia. After the Spanish-American War of 1898, an arrangement between Spain, Germany, and the USA allowed Micronesia, except for Guam, to be purchased by Germany from the USA for about US\$4.2 million. At the beginning of World War I, Japan seized the islands in a secret and controversial pact with Great Britain to counter the German presence in the Pacific. From 1919, Micronesia was formally recognised as a mandated territory of Japan by the League of Nations. Following World War II, the US was granted a strategic trusteeship of the region by the UN, and the region became known as the Trust Territory of the Pacific Islands (TTPI). Over the next 40 years, the Marshalls, Palau and the North Mariana Islands left the federation, leaving Yap, Chuuk, Pohnpei and Kosrae to form the FSM, accepting a Constitution in 1979 and entering into a Compact of Free Association with the US in 1986. The FSM was officially recognised as an independent nation by the UN Security Council in 1990. The US maintains special relationships with all the Micronesian nations/territories, being responsible for their defence and providing considerable financial assistance.

¹ N. Meller ‘The Congress of Micronesia’ in D. Hanlon *Remaking Micronesia* (University of Hawaii Press, 1998) p. 1.

² F. Hezel *Foreign ships in Micronesia* (1979) p.15; in 1494 through the Treaty of Tordesillas, Portugal and Spain divided the world between them, and the Pacific became the domain of Spain.

In terms of the types of UCH sites, the FSM potentially has a range of sites indicative of the indigenous and non-indigenous use, settlement, migration, customs, beliefs and world conflicts that have taken place there. The FSM is a diverse cultural entity, with six different languages and many unique cultural traditions. However, throughout the federation cultural traditions play a major role in everyday life, government and relationships with foreigners.

1.2 FSM laws and programs

The protection of the UCH in the FSM takes place through traditional methods, FSM national legislation, state legislation and US federal legislation (through Compact of Free Association provisions). The FSM acceded to the UN Convention on the Law of the Sea 1982 (LOSC) in 1991 and claims jurisdiction over its internal waters, a 12 nm territorial sea and a 200 nm EEZ. Article 1 of the Constitution³ states:

...the waters connecting the islands of the archipelago are internal waters regardless of dimensions, and jurisdiction extends to a marine space of 200 miles measured outward from appropriate baselines.

The Constitution goes on to provide a description of state waters:

Each state is comprised of the islands of each District as defined by laws in effect immediately prior to the effective date of this Constitution. A marine boundary between adjacent states is determined by law, applying the principle of equidistance. State boundaries may be changed by Congress with the consent of the state legislatures involved.

The Constitution also provides for the role of traditional leaders:

Nothing in this Constitution takes away a role or function of a traditional leader as recognized by custom and tradition, or prevents a traditional leader from being recognized, honored, and given formal or functional roles at any level of government as may be prescribed by this Constitution or by statute.

This effectively provides for the preservation of historic sites through traditional customs and non-traditional methods, such as the laws determined by the US federal, FSM national and state legislatures.

1.3 FSM Code of 1997 Title 26: Historical Sites and Antiquities

Title 26 of the FSM Code defines “historic property” and an “historical artefact” as:

“Historic Property” means sites, structures, buildings, objects, and areas of significance in local history, archaeology, or culture.

“Historical artifact” means an object produced by human beings thirty or more years previously.

It also states:

No person shall wilfully transport any historical artifacts in interstate or foreign commerce without the express written permission of the Governor of the State in which such artifacts were found.

No person shall wilfully deface, disfigure, disturb, or destroy any historic property within the control and jurisdiction of the National Government of the Federated States of Micronesia without the express permission of the President.

Upon receiving a request for permission to export, deface, disfigure, disturb, or destroy any historic property or artifact within the control and jurisdiction of the National Government of the Federated States of Micronesia, the President shall consult with the Institute [Institute for Micronesian History and Culture] to determine the appropriateness of granting such permission.

In regard to UCH, it is illegal to damage an archaeological site under the jurisdiction of the FSM government and Title 26 provides the governors of each state with the power to stop the transport of any “object produced by human beings thirty or more years previously” to any of the other states of FSM and internationally.

The Division of Archives and Historic Preservation within the Office of Administration Services (located in the national capital of Palikir, Pohnpei) is responsible for implementing a program to protect and preserve the FSM’s intangible and tangible cultural heritage, primarily through the activities of the state governments. A National Historic Preservation Officer advises the national government on these issues as well as co-ordinating funding and program activities of the State Historic Preservation Offices in the four states particularly with the US Department of Interior (National Park Service). Funding for the program is from the US Department of Interior and the FSM national and state governments.

1.4 US laws applying to the FSM

In 1974 the US extended its National Historic Preservation Act of 1966 to the TTPI and a Territory wide historic preservation program was operational from 1977.⁴ Upon FSM

³ FSM Constitution: see <http://www.fsmlaw.org/index.htm> (accessed June 2005).

⁴ Parker, P., 1987, “Lessons from Micronesia.” In CRM Bulletin Vol. 10.1 February. US National park Service

independence in 1986, provisions were included in the Compact of Free Association,⁵ in which the US/FSM agreed to apply the US National Historic Preservation Act of 1966 in the FSM and for the US (through the Department of Interior) to provide grants to implement an historic preservation program throughout the country. The National Historic Preservation Act provides for the survey, inventory and assessment of historic sites and the development of a National Register of Historic Places.⁶ Among other provisions, through the section 106 process,⁷ any federal (or federally funded) activities need to take into account and minimise any impacts on registered places. A FSM National Historic Preservation Office and four State Historic Preservation Offices have been established and funded through a Historic Preservation Fund and matching grants from the FSM national and the four state governments. As at June 2005, 26 places within the FSM have been recorded on the National Register of Historic Places. US National Historic Landmarks (NHL) is another register of designated places that ‘possess exceptional value or quality in illustrating or interpreting the heritage of the United States’ and out of the total of 2,300 NHLs, two FSM places (Chuuk Lagoon Japanese Fleet and Nan Madol in Pohnpei) are included on this Register.⁸

Other pertinent US laws, such as the Abandoned Shipwrecks Act of 1987, National Marine Sanctuaries Act of 1972, Antiquities Act of 1906 and Archaeological Resources Protection Act of 1979 do not apply to the FSM.

1.5 FSM state laws and programs

The FSM states are committed to maintaining their traditions and customs, in addition to using them to preserve historic sites, and have enshrined relevant provisions in their Constitutions and state codes. These cover terrestrial and UCH sites in their jurisdictions.

Some examples of these aspects can be found in Pohnpei State:

The Government of Pohnpei shall respect and protect the customs and traditions of Pohnpei. Statutes may be enacted to uphold customs or traditions. If such a statute is challenged as violating the rights guaranteed by this Constitution, it shall be upheld upon proof of the existence

⁵ The Compact of Free Association, Title II of Public Law 99-239, January 14, 1986, 99 Stat. 1770; and the Compact of Free Association Amendments Act of 2003, Public Law 108-188, 108th Congress.

⁶ T. King *Cultural Resource Laws and Practices: An Introductory Guide* (1998).

⁷ See further O. Varmer ‘United States of America’ **

⁸ From 2002, the Chuuk Lagoon Japanese Fleet was given a ‘threatened’ status because of the continual looting. NHL status is that required by the US to have a place eligible for nomination on the World Heritage List.

and regular practice of the custom or tradition and the reasonableness of the means established for its protection, as determined by the Pohnpei Supreme Court.⁹

In Yap, a Council of Pilung and Council of Tamol has been established to advise the governor and legislature, and to promote and preserve the traditions and customs of the people of the state in a manner consistent with the Constitution of the FSM and the Constitution of the State of Yap.¹⁰

The Kosrae State Code 1997 (Title 11: Land and Environment, Chapter 14: Antiquities) provides for impact assessments on “antiquities and traditional culture” located on land and in state waters to be reported to the governor.¹¹

In Chuuk (as throughout the FSM), in addition to the protection of local customs and traditions and the roles of traditional leaders, “[t]raditionally recognized fishing rights over submerged reef wherever located within the State Fishery Zone and internal waters shall be preserved and respected.”¹² “The people of Chuuk have always considered themselves to have rights and ownership of the tidelands [including reefs and other submerged lands], and thereby hold the property rights in them, throughout all of the several foreign administrations. These traditional and customary claims came down from time immemorial.”¹³ “The Chuuk State Constitution recognizes all traditional rights and ownership over all reefs, tidelands, and other submerged lands subject to legislative regulation of their reasonable use.”¹⁴

The only specific UCH law in the FSM is found in Chuuk. It forms part of the Chuuk State Code and is known as Title 25: Maritime and Marine Resources, Chapter 8: Chuuk Lagoon Monument.¹⁵ This law applies only to Japanese World War II sites located underwater, whereas the other FSM state laws are generic ones that cover the identification, protection and preservation of indigenous and non-indigenous sites and traditions on land and underwater.

To assist the FSM in implementing UCH activities, a submerged cultural resource

⁹ Constitution, Article 5, Section 2: see <http://www.fsmlaw.org/pohnpei/index.htm> (accessed June 2005).

¹⁰ See <http://www.fsmlaw.org/yap/code/index.htm> Chapter 4 of Title 5 of the Yap State Code, known as “State Historic Preservation Act of 1989” (accessed June 2005).

¹¹ See <http://www.fsmlaw.org/kosrae/code/index.htm> (accessed June 2005).

¹² Chuuk State Code, Title 25, Maritime and Marine Resources, Chapter 1, State Fishery Zone, Section 1007. Submerged Reefs: <http://www.fsmlaw.org/chuuk/index.htm> (accessed June 2005).

¹³ *Nimeisa v. Department of Public Works*, 6 FSM Intrm. 205, 208 (Chk. S. Ct. Tr. 1993) (accessed June 2005).

¹⁴ *Nimeisa v. Department of Public Works*, 6 FSM Intrm. 205, 209 (Chk. S. Ct. Tr. 1993) (accessed June 2005).

¹⁵ See <http://www.fsmlaw.org/chuuk/index.htm> (accessed June 2005).

training program was implemented by the US National Park Service Submerged Cultural Resources Unit (now Submerged Resources Unit) in 1987 in Guam, but there was very limited participation from the FSM. This unit has a wide mandate covering the US and its external territories, and it spent some time in Micronesia and the FSM during the 1980s and early 1990s primarily conducting site surveys and developing strategic plans for site management in association with the State Historic Preservation Offices.¹⁶ Currently, Chuuk has the most active UCH program, and the author believes that a description of these activities and how the law has been used there is worthwhile.

1.6 Chuuk State UCH legislation

Chuuk State has been active in the area of UCH because of the 50 plus Japanese shipwrecks and other World War II sites located within Chuuk Lagoon. This area is the government, business centre and most populated region of the State.¹⁷ The lagoon is about 63 km in diameter, comprising nineteen volcanic islands and a number of coral atolls. It has provided indigenous and foreign users with a wonderful natural resource for subsistence living, marine exploitation and sheltered shipping activities.

Chuuk, or Truk as it was known throughout World War II, was the Imperial Japanese Navy's Fourth Fleet base from November 1939 and the Combined Japanese Navy Fleet was based there from July 1942 to February 1944.¹⁸ Two of the largest battleships ever built, the 62,000 ton *Musashi* and *Yamato*, together with many other naval and mercantile vessels were easily able to anchor in the protected waters of the lagoon. From February 1944, the US began a bombing campaign of the base, dropping over 6,000 tons of bombs, sinking over 50 ships, destroying over 400 aircraft and essentially taking the base out of the war from that time.

Chuuk legislation was proclaimed on the 14 August 1971 to protect the sunken Japanese ships and aircraft, which at this time were gradually becoming recognised as war graves.¹⁹ It was designed to control the removal of the material remains, which had been started

¹⁶ T. Carrell (ed.) *Micronesia: Submerged Cultural Resources Assessment* (1991).

¹⁷ Chuuk State contains about 50 per cent of the population of the whole of the FSM.

¹⁸ 'Truk was known as the Japanese Pearl Harbor' US Strategic Bombing Survey, Naval Analysis Division *The Reduction of Truk* (1947) p. 2.

¹⁹ P. Tzimoulis 'Diver's Discover WWII Japanese I-169 with its Entombed Crew' *Skin Diver Magazine*, February 1972, pp. 38-42.

in 1969 by a group under the leadership of Jacques Cousteau,²⁰ as well as to control the increasing number of divers visiting the site. It is probably one of the first laws anywhere that was aimed at trying to regulate diver tourism, something which many ‘developed’ countries have still not done. Known as the Truk (Chuuk) Lagoon District Monument, these sites were protected under Truk State Law No. 21-5, which has been amended five times, the last amendment being on 17 February 2000.

This legislation protects all Japanese military and non-military remains lying in Chuuk Lagoon below the high-water mark that were deposited there before 31 December 1945. It does not protect indigenous sites or the military remains of other nations, such as the US aircraft lying in the lagoon.²¹ Although anecdotal evidence has suggested that some submerged fish weirs can still be found in Chuuk Lagoon, no work has been implemented on them.

The methods in which the Japanese military and non-military remains are protected in the legislation are:

- by making it illegal to dive without a permit and a certified dive guide, both of which can be obtained from the managers of the licensed dive shops, and/or the governor;
- by making it illegal to “remove, appropriate, damage or destroy, without the written permission of the Governor” any of this material.

Upon conviction, the penalty for a breach of the provisions in the legislation could be a fine of up to \$1,000 and/or imprisonment for a period of not more than six months. The legislation authorises the managers of the licensed dive shops to collect a \$30 fee for the permits and for this to be delivered to the state treasurer to be deposited in the general fund, with a provision that it be used “exclusively for the administration, protection, and development of Chuuk Lagoon State Monument”. The legislation also authorises an appropriation of annual funding for carrying out the provisions of the Act.

1.7 Ownership of the Japanese Fleet

²⁰ The Cousteau Truk Expedition apparently recovered ‘tons of artefacts’ and shipped them back to France. They have not been seen since. See D. E. Bailey *World War II Wrecks of the Truk Lagoon* (2000) pp. 265-266.

²¹ Chuuk State has no legislation which protects the many terrestrial historic sites, including World War II and indigenous sites, that are commercially exploited, including by the sale of traditional and Japanese World War II artefacts promoted through such websites as <http://nopukob.com/products/> (accessed June 2005).

Ownership of the underwater Japanese World War II shipwrecks and aircraft is an issue that should be touched on here, given the multinational interests in the sites and the propensity of this issue to muddy the waters in regard to their protection. This issue has a number of aspects. First, there is the question of who owns the submerged land in the lagoon and on which the shipwrecks and aircraft are situated. The waters of the lagoon are classified as the internal waters of the FSM and under the control of Chuuk. In regard to the traditional ownership of the lagoon, while it is known that certain village clans claim ownership of the reefs within the lagoon and the outer reef,²² the deeper waters of the lagoon (where the majority of the sites are located) appear not to be owned by any particular clan, as has been determined in the courts:

A deep water passage through a reef too deep for Chuukese women to engage in their traditional fishing methods is not a tideland. While under Chuukese tradition and custom channels may have been owned, the constitution does not recognize traditional rights over channels. The state thus retains ownership of the channels, as was the situation prior to the adoption of the Chuuk Constitution.²³

However, some shipwrecks and aircraft can be found on submerged land that - while not exposed at low tide - is shallow enough for traditional owners to claim ownership of the submerged land and control of the material resting on it. In a report prepared by the US National Park Service in 1989, the ownership issue was highlighted:

Establishing a historical park or reserve to manage and protect the sunken World War II wrecks of Truk Lagoon would not have any major effects on the traditional system of marine tenure which exists over lagoon waters. The sunken wrecks are already regarded as public domain. No clan or village has made claim of ownership or use rights to the wrecks.²⁴

In terms of ownership of the shipwrecks and aircraft, research to date indicates that the US could own the World War II UCH sites. Japan relinquished claims to its war property through the San Francisco Peace Treaty 1951.²⁵ In 1969, an agreement was reached between the US and Japan to the effect that Japan and its nationals for a period of three years could “salvage and freely dispose of the ships sunk in the waters of the Trust Territory which were of Japanese

²² T. F. King and P. L. Parker ‘*Pisekin nóómw nóón Tonaachaw, Archaeology in the Tonaachaw Historic District, Moen Island* (1984).

²³ *Sellem v. Maras* 7 FSM Intrm. 1, 5 & n.9 Chk. S. Ct. Tr. (1995) (accessed June 2005).

²⁴ *Truk Lagoon Historical Park Study*, draft report for Federated States of Micronesia, State of Truk: National Park Service (1989).

²⁵ Art. 14(2)(I) states: “Subject to the provisions of subparagraph (II) below, each of the Allied Powers shall have the right to seize, retain, liquidate or otherwise dispose of all property, rights and interests of Japan and Japanese nationals”.

nationality at the time of sinking.”²⁶ Further agreements, including the two Compacts (1986 and 2003) appear to be silent on this issue and it must be concluded that the ownership rests with the US. A recent public notice from the US Department of State contained a number of statements on how the US and some other countries view sunken warships and aircraft, including the following statement from the Government of Japan, communicated on 13 September 2003:

According to international law, sunken State vessels, such as warships and vessels on government service, regardless of location or of the time elapsed remain the property of the State owning them at the time of their sinking unless it explicitly and formally relinquishes its ownership. Such sunken vessels should be respected as maritime graves. They should not be salvaged without the express consent of the Japanese Government.²⁷

More recently, on 28 October 2004, President George W. Bush signed the FY2005 National Defense Authorization Act. Title XIV of the Act (Public Law Number 108-375) “preserves the sovereign status of sunken US military vessels and aircraft by codifying both their protected sovereign status and permanent US ownership regardless of the passage of time.”²⁸ An interesting point is whether this legislation would apply to the Chuuk Lagoon vessels, if the US owns them? This is an obvious area of further research.

1.8 Chuuk UCH program

Chuuk has two government agencies that are involved with its UCH program, the Chuuk Historic Preservation Office (CHPO) and the Chuuk Department of Marine Resources.

The CHPO is funded by the US Department of Interior (National Park Service) and the Chuuk government, and it implements an historic preservation program in association with the US National Historic Preservation Act of 1966. As is the case with the terrestrial archaeological and ethnographic surveys that have been implemented in Chuuk, the UCH surveys are supervised by foreign specialists through the US Historic Preservation Fund for Professional Services. In 2001, the FSM National Historic Preservation Office contracted the author to implement maritime archaeology activities in Chuuk to be followed by work in the other three

²⁶ ‘Agreement between the United States of America and Japan concerning the Trust Territory of the Pacific Islands’, entered into force 7 July 1969, in *United States Treaties and other International Agreements*, Vol. 20, Part 2, 1969 (1970) p. 2668.

²⁷ US Department of State, Public Notice 4614, ‘Office of Ocean Affairs; Protection of Sunken Warships, Military Aircraft and Other Sunken Government Property’ *Federal Register*, Vol. 69, No. 24 (5 February 2004) 5647-5648.

²⁸ This is from a press release on the “purpose of Title XIV, generally referred to as the Sunken Military Craft act (SMCa), which is to protect [US] sunken military vessels and aircraft and the remains of their crews from unauthorized disturbance [anywhere in the world, and foreign sunken military vessels and aircraft in USA territory]”.

states.²⁹

The types of maritime archaeology activities that have been carried out in Chuuk include the training of CHPO staff in recording and monitoring the World War II underwater (and terrestrial) sites; the development of guidelines for implementing further work (quasi-management plan); and the implementation of three projects in the areas of site surveying, site conservation and community awareness.³⁰

An issue arose during the implementation of these activities in 2002 which highlights some of the pitfalls in applying the US legislation in Chuuk. As part of the site surveying work, a side-scan sonar was used to locate known shipwrecks and any unlocated sites and this identified a previously unlocated World War II shipwreck, the *Sapporo Maru*. Within 24 hours, the shipwreck was stripped of its bell (damaging the shipwreck in the process) and was being damaged by uncontrolled commercial diver tourism. The police investigations revealed who took the bell, but it was concluded there was no breach of the law as it was still located (hidden) on the site. They concluded no prosecution was required even though the Chuuk State Code states that it is illegal to “remove, appropriate, damage or destroy, without the written permission of the Governor” any of the World War II Japanese material.

What this appears to highlight is the conflict an indigenous society has in applying what are essentially western laws with its traditional systems. The same law applied in a western society would have found this action to be illegal and punishable. It is thought that in this case the action was condoned because of clan/family affiliations and because government officials did not want to take action against a clan/family member. The bell was reported to have been removed so it could not be taken by a souvenir collector and it is now located in a dive shop and therefore it has not been removed from the country, unlike other artefacts in the past. The other interesting aspect that this episode highlights is that the Japanese shipwrecks are not considered by the Chuukese to be of historic or social significance in the same way as some Japanese and Americans regard the sites. A number of Chuukese regard the shipwrecks as important diver tourist destinations and, by removing the bell, they have removed a very tempting souvenir.³¹ In contrast, many Japanese view them as war graves, sites they would like left untouched. Many

²⁹ B. Jeffery *World War II sites in Chuuk, Federated States of Micronesia: A survey of underwater and terrestrial sites*, unpublished report (2004).

³⁰ B. Jeffery *War in Paradise: World War II Sites in Truk Lagoon Chuuk, Federated States of Micronesia* (2003); I. MacLeod *Metal Corrosion in Chuuk Lagoon: A Survey of Iron Shipwrecks and Aluminium Aircraft*, unpublished report (2003).

³¹ Further information about this issue can be found in B. Jeffery ‘World War II shipwrecks in Truk Lagoon: The role of interest groups’ in *CRM: The Journal of Heritage Stewardship* (2004) Vol. 1:2.

Americans place great historical significance on the shipwrecks and a number of American commercial interests enjoy a healthy dive tourism industry based on them.

The Chuuk Department of Marine Resources is also involved in the management of the World War II underwater sites, by virtue of the Chuuk State Code identifying the sites as a maritime or marine resource. The Department is charged with the task of patrolling and monitoring any disturbances to the sites from divers or dynamite fishers, but suffers from a lack of funding for fuel for patrol vessels. If, as the Chuuk State Codes states, the \$30 diver fee is used “exclusively for the administration, protection, and development of Chuuk Lagoon State Monument”, then - based on an annual 3,000 tourists visiting Chuuk (the majority being divers) - up to \$90,000 should be available for enforcing the legislation. However, there is little evidence of this. The shipwrecks in Chuuk Lagoon are world renown for their quality diving, yet the tourist figures have been declining since 1996 (from 9,834 tourists that year to 3,542 tourists in 2002), a worrying sign.³²

There are also other issues of concern in respect of the Chuuk Lagoon shipwrecks. The dive guides - whose services are mandatory for anyone wanting to dive the sites - are the major points of contact/control for diving souvenir hunters.³³ It has been reported that some of the guides have assisted in the souveniring, rather than in stopping it; given their economic status and what they can gain from this activity, this is not surprising. On the other hand, it is also known that on occasions the Department of Marine Resources has confiscated artefacts from divers.³⁴ Moorings, as in the case of the *Yongala* in Australia,³⁵ are a big issue in Chuuk, compounded by having the equivalent of 50 *Yongala* shipwrecks to manage. The Chuuk State government provides little support in this regard, small boats continue to drop their anchors on the sites or use the moorings established by the ‘live-aboard’ dive boats (at their own expense) and in excess of US\$100,000.³⁶

Some of the many munitions found on the shipwrecks are also being recovered and used to make into smaller bombs for fishing - on the many reefs as well as on the shipwrecks. This action not only kills the fish life and other marine fauna, but it damages the fabric of the

³² These figures were obtained from the Chuuk Visitors Bureau and the FSM Department of Immigration in 2002 and 2004.

³³ F. Hezel and C. Graham *Truk Underwater Archaeology. Micronesian Resources Study* (1997).

³⁴ H. C. Schreck *Museum and Historic Site Development in the Trust Territory, Truk State* (1980).

³⁵ See B. Jeffery ‘Australia’ **

³⁶ Pers.Comm. Niall Lawlor, Captain of Truk Aggressor II, March 2004

ships accelerating the rates of corrosion and contributing to their collapse³⁷ (and, along with their collapse, the collapse of the tourist industry in Chuuk). Additional Chuuk State Law (and similar legal provisions in the FSM National Code) outlaws dynamite fishing, but nonetheless it continues.

Perhaps the most important factor in the management of the shipwrecks is not whether the law is adequate and enforced, or whether the program is comprehensive, but whether the Chuukese have a desire to manage the shipwrecks and in what manner. It is known that the Japanese (who annually visit Chuuk and some shipwreck sites for commemorative services) and many Americans regard the sites as highly significant, but many Chuukese do not appear to have the same attachments to the sites. Should a more co-operative regime involving Japanese, American, Chuukese and possibly international (given the international significance that this 'battle' had in World War II and the quality of the remains) representatives help in providing a management regime worthy of their status? Or is this a further extension of past colonialism and would it be better to leave the Chuukese to deal with the sites in the manner they wish?

In any event, effective management of the sites will be difficult in the current economic and social climate in Chuuk:

In past years, its [Chuuk's] chronic financial woes and leadership shenanigans were something of a running joke. Now the problems are a nightmare, and are at the core of stringent US demands for greater financial accountability and transparency for the whole federation. There is serious discussion now taking place among national [FSM] leaders about the possibility of the FSM existing without Chuuk. [When the current FSM President Joseph Urusemal was asked if he foresaw the FSM breaking up he replied] I don't think this will happen, at least not on my watch.³⁸

This situation places a great strain on many daily issues in Chuuk, including the effective and sustainable management of UCH. A new administration was elected in Chuuk in March 2005. However, even a country with a viable economy and a prosperous society would find the effective management of more than 50 large shipwrecks and numerous aircraft daunting.

1.9 Programs in other FSM states

Similar, predominantly terrestrial-based, historic preservation programs are implemented in the other FSM states. The types of UCH sites in Yap, Pohnpei and Kosrae range from 1,000-2,000 year old indigenous habitation sites; sacred, cultural sites; seventeenth century Spanish ships;

³⁷ MacLeod (2003) p. 10 has predicted some of the sites could start to collapse in ten to fifteen years.

nineteenth century whaling vessels (including the remains of the *Leonora*, ‘pirate’ Bully Hayes’s vessel³⁹); and Japanese and American World War II remains. These do not seem to elicit the same problems in site management as in Chuuk. Examples of the earlier indigenous sites, partly submerged, can be seen in the numerous and well-preserved fish weirs found throughout the FSM and the 1,500 year old canal city ‘Nan Madol’ located in Pohnpei.⁴⁰

2. The FSM and the UNESCO Convention on the Protection of the Underwater Cultural Heritage 2001

Some of the main aims of the UNESCO Convention 2001 are to preserve sites *in situ*, to stop commercial exploitation of sites and artefacts, and to ensure that - where excavation is permitted - it is carried out in accordance with international best practice, i.e. the Rules contained in the annex to the Convention. The aims of the Convention are consistent with how sites in the FSM and particularly the World War II sites in Chuuk should be managed, given dive tourism is an important industry in the economy of the region.

However, if the FSM were to ratify the Convention, the Rules in its annex would not apply to the World War II wrecks (not being 100 years underwater), although the FSM could apply the Rules if it so wished. In a meeting in Vanuatu in 1999, the Pacific Island Nations:

noted the preparation by UNESCO of a new Convention for the Protection of Underwater Cultural Heritage;

recommended that underwater heritage of international and regional significance in the Pacific be recognized and mechanisms for its protection be developed;

noted that "Protection of Underwater Heritage", within the Pacific, at the moment seems to refer more often to underwater wrecks from World War II, despite the existence of other underwater sites such as sacred cultural sites existing in many areas of the Pacific. The meeting urged the protection of these sites as well as those on land that may be protected by the World Heritage Convention. The meeting urged that the effects of global warming and sea level rises must be taken into account with regard to the protection of underwater heritage.⁴¹

3. Potential application of the UNESCO World Heritage Convention 1972 to the Chuuk Lagoon UCH sites

³⁸ F. K. Takeuchi ‘Thinking the Unthinkable: Can the FSM hold together’ in *Pacific Magazine* (November 2003) pp. 16-18.

³⁹ Carrell (1991) pp. 452-458.

⁴⁰ B. Ayers ‘Archaeology at Nan Madol, Ponape’ (1983) *Bulletin of the Indo-Pacific Prehistory Association* 135-42.

⁴¹ UNESCO Second World Heritage Global Strategy for the Pacific Islands Region, Port Vila, Vanuatu (24 to 27 August 1999).

One way of recognising the international value or “outstanding universal value” of the World War II UCH and protecting it at an international level is to list it under the UNESCO Convention concerning the Protection of the World Cultural and Natural Heritage 1972 (hereafter World Heritage Convention). The author has considered this issue in regard to the World War II sites in Chuuk Lagoon and considers that currently the Chuuk Lagoon World War II UCH sites would not meet the conditions for world heritage listing, because they are not adequately managed. However, it is the author’s view that they do meet two of the criteria for world heritage listing: the test of authenticity, and also that they do not appear to have any ownership impediments.⁴² There would be a number of other bridges that would need to be crossed before nominating the site, for example, some in UNESCO consider shipwrecks are movable and for this reason ineligible,⁴³ and there also seems some reluctance to place World War II sites on the list (there being only two, the Hiroshima Peace Dome and Auschwitz Concentration Camp).⁴⁴ Nonetheless, it is an avenue worth exploring, especially given there are over 3,000 World War II shipwrecks located in the Pacific Ocean and the Chuuk sites are regarded as “...one of the great undersea wonders of the world...”.⁴⁵

4. Summary and Future Direction

Legislation has been in place to protect UCH sites in the FSM since the 1960s through the US National Historic Preservation Act 1966 (albeit limited in power); separate state legislation such as that protecting the Chuuk Lagoon World War II shipwrecks and aircraft (1971); and national FSM legislation (1980s). The Chuuk legislature saw a need to protect the Japanese underwater sites from looting as well as controlling diver tourism, and was innovative in funding a program through charging a diver fee.

The FSM historic preservation programs have backed up these laws with training programs in so far as they apply to terrestrial sites, but not to the same extent in respect of UCH. The Micronesian Endowment for Historic Preservation, a non-governmental organisation supporting the activities and aims of historic preservation programs in greater Micronesia, has recently contracted a professional marine archaeological training for government

⁴² B. Jeffery ‘World War II underwater cultural heritage sites in Truk Lagoon: Considering a case for World Heritage Listing’ (2004) 33 *International Journal of Nautical Archaeology* 106-121.

⁴³ H. Cleere ‘The underwater heritage and the World Heritage Convention’ (1993) 17 *Bulletin of the Australian Institute for Maritime Archaeology* 25-26.

⁴⁴ *World Heritage Committee, 20th Session, Mexico* (1997) UNESCO Document WHC-96/CONF.201/21.

⁴⁵ A. Giddings ‘Foreword’ in K. P. Lindemann *Hailstorm over Truk Lagoon* (1982).

officials/avocational divers and this hopefully will lead to the FSM and the other nations in Micronesia being better equipped to take on and implement the UNESCO Convention.

An issue that has previously been raised and which is crucial in furthering an UCH program in the FSM is appreciating and understanding the relationship or attachment of the community to these sites. Throughout the FSM, there are many indigenous fish weirs and occupation sites dating back to possibly 2,000 B.P. and many are well-preserved, widely spread and readily accepted as significant historic sites. In Chuuk the position is different: the environment and indigenous sites have been greatly impacted by non-indigenous occupation. Chuuk was a major base for the Japanese during the war and traditional sites were interfered with and probably totally destroyed, especially around the coastline. As a result, the major types of underwater cultural sites are Japanese, not Chuukese, and they appear to hold little significance to the Chuukese. The Chuuk Lagoon Historical Park Study 1989 found:

Unfortunately, nothing tangible remains of this aspect [how the war affected Micronesians] of World War II except the graves of Nauruans on Tol. The establishment of a historical park provides a means to preserve these intangibles and, through interpretation, pass them on to others.⁴⁶

The report noted many shortcomings in the current management of the sites and considered the designation of a park, funded and managed co-operatively between the Chuuk, FSM and US governments a much more effective option. It also noted how the indigenous inhabitants have been ‘overlooked’ in commemorating their losses from the war. Is it little wonder that they do not find war-related sites (particularly the submerged sites) significant?

As previously stated, another management option could be for former colonial powers not to engage with the Chuukese on the management of the sites, due to this being interpreted as neo-colonialism and perhaps Chuuk’s unwillingness to negotiate with former colonial powers over managing war sites.⁴⁷ The submerged World War II sites in Chuuk will not be formally helped by the UNESCO Convention as it does not apply to sites that have not been submerged for 100 years. But Chuuk does need help in managing these internationally significant sites: the current management is ineffective and the sites will continue to suffer.

Conclusions

⁴⁶ US National Park Service *Truk Lagoon Historical Park Study Draft Report for Federated States of Micronesia. State of Truk* (1989).

⁴⁷ Bailey (2000). Japanese groups have recovered human remains for cremation on two occasions and a request to implement a third occasion was allegedly denied by the Chuuk government.

As a conclusion it was thought interesting to contrast the FSM's economic situation (in addition to the specific situation in Chuuk) with that in both Australia and the US as this can have a significant impact on many social issues, including historic preservation programs. The latter provides considerable direction for the FSM's historic preservation programs and will continue to do so for the life of the next Compact (20 years). The FSM is a traditional society that uses traditional culture and laws, combined with western style laws to manage its cultural heritage. It does not share the wealth or economic growth of Australia or the US. By western standards it is an impoverished society: 27 per cent of Micronesians fall below the poverty line. Their gross domestic product (GDP) per capita is US\$2,000, compared with US\$27,000 in Australia and US\$37,600 in the US. The FSM has a coastline about one-third the size of the US and one-quarter the size of Australia, but comparatively few resources to manage its heritage, including the untapped UCH. Rich bullion-laden ships of the old world - from previous colonial powers - may lie in its waters. There could be considerable internal pressure to gain financially from commercially exploiting these sites, as has happened in other parts of Micronesia and South East Asia.

The FSM legislation and program, and the objectives of the UNESCO Convention 2001, need to be considered in context with what is realistically appropriate in the FSM. Only one state in the FSM has specific UCH legislation, Chuuk, but the UNESCO Convention will not apply to the Chuuk Lagoon World War II sites, although a great deal of help is needed to manage these sites.⁴⁸ The Convention, through its requirements for collaborative management with interested parties, could provide assistance in managing the shipwrecks and cultural material of other nations located in FSM waters, provided they have been submerged for 100 years. This is an obvious strength and a major objective of the Convention, but to the FSM, where the majority of the sites are either more modern (World War II sites) or traditional, the Convention does not provide for collaborative management. The sites that the FSM are keen to have protected under the Convention are their traditional sites, where there would be no other "interested State Parties" to assist in their management. The UNESCO World Heritage Convention 1972 provides for a fund to assist in many of its activities, but the UNESCO Convention 2001 does not. Maybe it should, provided it is through a collaborative management arrangement.

⁴⁸ Recent American and Japanese statements on the need to protect sunken military craft (see notes 27-29 above) would appear to put the onus on them to better manage these sites.

Soya (D)			17/2/44	17/2/44	?/2/44	?		
Soyo Maru			7/12/43*				7/12/42*	
Susuki (Patrol Boat 34)					3/7/44	?	3/7/44	
Tachi Maru ¹					17/2/44	17/2/44		
Tachikaze	17/2/44*		17/2/44*	17/2/44*	4/2/44	18/2/44*	17/2/44*	17/2/44*
Taikichi Maru ¹			17/2/44	17/2/44				
Taiho Maru	17/2/44		17/2/44	17/2/44	17/2/44	?	17/2/44	17/2/44
Taijun Maru			11/4/42				11/4/42	11/4/42
Tamanami (D)					?/2/44			
Tatsuha Maru	17/2/44*		17/2/44*	17/2/44*	17/2/44*	17/2/44*		
Terukawa Maru	21/12/43*		21/12/43*				21/12/43*	
Toei Maru	18/1/43*		18/1/43*				18/1/43*	
Toan Maru			18/2/44*					
Torpedo Boat No.10 (Gyoraitei No. 10)			18/2/44*	18/2/44*	17/2/44*	17/2/44*	17/2/44	17/2/44*
Tonan Maru No. 3 [Ⓢ]	17/2/44		17/2/44	17/2/44	18/2/44	?	17/2/44	17/2/44
Toyo Maru No.2	8/4/43*		2/4/43*				2/4/43*	
Tsunushima Maru			20/12/43*				20/10/43*	
Tsushima Maru			12/1/44*		?/2/44?			
Umikaze	1/2/44*		1/2/44				1/2/44*	1/2/44*
Unkai Maru No. 6	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44	17/2/44	17/2/44
Unknown (Coastal Oiler)								30/4/44
Unknown (Tugboat)								30/4/44
Unknown (Supply vessel)					30/4/44			
Unknown (Lighter)					?			
Unknown (Auxiliary Submarine Chaser)					?	1/5/44		
Ushio (D)					?/2/44			
Yamagiri Maru	17/2/44		17/2/44	17/2/44	18/2/44	17/2/44	17/2/44	17/2/44
Yamakisan Maru (Sankisan Maru)	17/2/44		17/2/44	17/2/44	18/2/44	18/2/44	17/2/44	17/2/44
Yamashimo Maru	23/2/44*		22/2/44					
Yasukuni Maru	31/1/44*						31/1/44*	31/4/44*
Yubae Maru	17/2/44		17/2/44	17/2/44	17/2/44	17/2/44		17/2/44
Yubure (Yubari)		17/2/44	28/4/44*					
Zuikai Maru	17/2/44*		17/2/44*	17/2/44*		17/2/44*	17/2/44*	17/2/44*

These vessels were:

* recorded to have sunk outside the lagoon;

(D) recorded as having been damaged (minor or major) and most likely not to have sunk;

^a recorded as destroyed and not just damaged;

+ could be the same vessel, although both are listed in JM 116 and JM 173;

[Ⓢ] sunk then refloated a few years later;

¹ possibly the same vessel.