# SIT Graduate Institute/SIT Study Abroad SIT Digital Collections

Independent Study Project (ISP) Collection

SIT Study Abroad

Spring 2009

## The Material Remains of World War II on Viti Levu: A Historical Archaeological Inventory

Allison Young SIT Study Abroad

Follow this and additional works at: https://digitalcollections.sit.edu/isp\_collection Part of the <u>Archaeological Anthropology Commons</u>

**Recommended** Citation

Young, Allison, "The Material Remains of World War II on Viti Levu: A Historical Archaeological Inventory" (2009). *Independent Study Project (ISP) Collection*. 682. https://digitalcollections.sit.edu/isp\_collection/682

This Unpublished Paper is brought to you for free and open access by the SIT Study Abroad at SIT Digital Collections. It has been accepted for inclusion in Independent Study Project (ISP) Collection by an authorized administrator of SIT Digital Collections. For more information, please contact digitalcollections@sit.edu.

The Material Remains of World War II on Viti Levu: A Historical Archaeological Inventory

By

Allison Young

A Paper Submitted in Fulfillment of the Requirements of Independent Study for SIT Fiji Spring 2009

Advisor: Dr. Frank Thomas

Academic Director: Taomi Qiliho

### Dedication

"Eda na sega ni kilai na i Taukei kevaka ena sega mada ni dave e liu na noda dra." "Fijians will never be recognized unless our blood is first shed."- Ratu Sukuna

This study is dedicated to the inspiring generation of Fijians who whole-heartedly supported the Allied war effort during the Second World War and in some instances gave their lives for the Allied cause.



#### Acknowledgments

I am very grateful to Mr. Elia Nakoro of the Fiji Museum for his guidance and assistance. This project would not have been possible without his kind outlook towards undergraduate research and willingness to help a stranger. His support was indispensable during the early stages of field research and his suggestions set my research on a successful path.

I would also like to thank my advisor, Dr. Frank Thomas for his academic guidance through this process. His valuable suggestions helped me develop my study and include crucial portions of discussion that I would have otherwise overlooked.

I would also like to thank my host great uncle for his assistance in accessing Momi Gun Point. The fieldwork visit to the site was valuable to my research, and would not have been possible without his kindness and hospitality.

I am very grateful to Austin Wellman for serving as my safety contact when I ventured into tunnels, as well as my other SIT classmates for their support during our shared time of academic stress and frustration.

I would also like to thank my host family for their support and interest in the project, my American family for their love and support from across the ocean, Safaire Vere for administrative assistance, and my academic coordinator Mrs. Qiliho.

## Table of Contents

Dedication	2
Acknowledgments	3
Abstract	5
Introduction	6
Method Chapter	14
Data Chapter	17
Analyses Chapter	31
Conclusion	
Works Cited	41
Appendices	43

#### Abstract

World War II was a global conflict that dramatically changed many aspects of society in the late 1940's. It transformed the landscape of many locations, leaving behind a vast and diverse material record. Although the battles of the conflict never reached Fiji, a British colony in the South Pacific, the war greatly impacted the island group. Fiji was under threat of Japanese invasion for the majority of 1942 and part of 1943, which resulted in a build up of military forces and defensive installations. In the later years, Fiji was used as a forward base for the Allied forces, which resulted in the construction of transportation infrastructure, as well as an influx of Allied troops and supplies coming into the island. This study is a historical archaeological inventory of the significant World War II heritage sites on the main island of Fiji, Viti Levu. The study also discusses how the war impacted Fiji and laid the groundwork for many aspects of modern life in the islands.

#### Introduction

#### **Problem Statement**

Throughout historical discussions on the Pacific War, Fiji is not a location that is frequently mentioned. The island nation was never invaded or occupied by the Japanese, and the landscape was never devastated by a major battle. Despite a lack of large scale involvement in the broader history of the Pacific Theater, Fiji still played a part in the war and was greatly affected by the global conflict. Fiji was directly threatened by Japanese invasion for a period of time in 1942-1943 and was later used as a forward base for United States forces. A military force was established initially for defense of the country, but eventually served overseas in the Solomon Islands. The landscape was altered by the construction of defensive installations, medical facilities, airfields, and other industrial infrastructure. These physical changes to the country represent a transformation in Fijian society and culture. A historical archaeological perspective on the remains of the Second World War in Fiji could provide valuable insight on the way that Fiji was impacted during the by the Second World War. In the current study, I shall assemble an inventory of significant World War II heritage sites on Viti Levu and summarize the condition of their preservation. The study will also examine how the Second World War impacted Fiji as well as Fiji's contributions to the Allied war effort. I would also like to examine how the material and historical records respectively reflect the impact of World War II on Fiji today in terms of militarization, modernization, ethnic tensions, and economic development.

Historical archaeology is a multi-disciplinary subfield of archaeology with a number of varying theoretical stances and goals. The research and fieldwork of historical archaeology focuses on historic sites of the recent past, which has the historical record of documents and oral histories that can be used as a source of correlation to archaeological data. Conflict archaeology

is a more recent sub-field of historical archaeology. It studies archaeological sites of conflict such as battlefields, fortifications, and defensive installations. For this study, the methods of historical archaeology will be employed to complete the inventory of World War II sites on Viti Levu. These methods will be discussed in more detail in the Method chapter.

A historical archaeological inventory of World War II sites on Viti Levu is a justified endeavor. The field of contemporary military archaeology is still in the early stages as will be discussed in a review of fieldwork literature. This inventory will serve as a potential starting point for future research into the World War II archaeology of Fiji. These sites are threatened by contemporary intrusions and future development. It is important to record their state of preservation and locations. This study will also serve as a valuable source on defensive measures taken by the British Empire under the threat of Japanese invasion. The defenses in Fiji are representative of these measures without having been destroyed by an actual invasion.

#### Fiji and the Second World War: A General Overview

Some relevant background history of Fiji and the Second World War will provide valuable context for the goals of this study. Fiji was named a British crown colony in 1874 through the Deed of Cession, which was signed by the Fijian chiefs. Indentured labor from India was brought to Fiji for the sugar cane industry in the late 19<sup>th</sup> century. From that point on, Fiji became a multi-ethnic nation of three principal groups: indigenous Fijians, Europeans, and Indo-Fijians. Fiji first began establishing a military during World War I. The Fiji Defense Force was established in 1914 at battalion strength to help protect the islands from German raiders (Ravuvu 1988: 5). Many European-Fijians volunteered for service with British Empire forces. Ratu Lala Sukuna was the only ethnic Fijian to see combat during the First World War by joining the French Foreign Legion. A Fijian labor detachment of approximately 100 men was sent to Italy

(Lowry 2006: 2). Fiji's involvement in the First World War was fairly minimal and the islands remained mostly untouched by the conflict. This was not to be the case during World War II.

At the outbreak of the Second World War in 1939, the FDF consisted of a headquarters, a signal unit, and only one territorial battalion. The colonial government made an effort to expand the country's defenses as well as contribute to the British war effort in Europe. Fund raising efforts were undertaken to finance the purchase of aircrafts for the British cause (Lowery 2006: 3). Discussion concerning the construction of wartime infrastructure and defenses will be undertaken in more detail in the Data chapter.

For the first two years of the war, 1939-1941, the main threat in the Pacific region were armed German merchant cruisers that were attempting to capture supplies from New Zealand and Australia that were going to the UK via the Panama Canal. The trans-Pacific submarine telegraph cable that ran via Norfok Island, Suva, and Fanning Island was also threatened. The threat to Fiji was significantly elevated with the Japanese attack on Pearl Harbor and Southeast Asia. Governor of Fiji, Sir Harry Luke addressed the legislative council, "The war, which in its earlier stages seemed so remote form our shores that the full measure of its menace may have been at times difficult to realize, has now been carried most treacherously into the very heart of the Pacific…we must be prepared for other 'incidents' in this ocean whose name is now not only climatically but politically a misnomer." (Lowry 2006: 6) This excerpt illustrates that Luke knew of the immense potential of the Japanese threat.

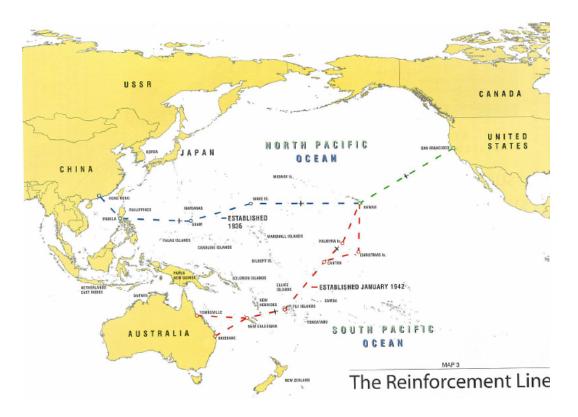


Figure 1: Map of the Reinforcement Line from Australia through Fiji to the USA (Lowry 2006: 14)

Japan's desire to increase its empire had led it to attack Pearl Harbor and several other Pacific locations in early December, 1941. Japanese leadership hoped that by securing a chain of island bases in Southeast Asia as well as crippling the US fleet, they would be able to protect themselves from an American counter offensive and negotiate a quick treaty of surrender with the Americans. The surprise attack in Hawaii, the Philippines, Malaya, and the Netherlands East Indies all resulted in victories. They later went on to seize American possession of Guam, the Australia mandated territory of New Guinea, and the British possessions of the Solomon Islands, and Gilbert Islands (Lowry 2006: 9).

After their initial successes, they were forced to reassess their strategy which ultimately led to a difference of opinion between Japanese leadership. One side argued for the complete capture of New Guinea, followed by the invasion of New Caledonia, Fiji, and Samoa. The opposition argued for luring the US Navy into a decisive battle at Midway Island in order to completely destroy their fleet. The compromise reached is best summed up by van der Vat. He states, "The Navy was to capture Midway, the US outpost in the middle of the Pacific, to extend the perimeter and force a decisive battle with the US fleet...and afterwards the New Caledonia, Fiji, and Samoa were to be occupied to cut off Australia as the new rearward base for an allied counter attack." (Van der Vat 1995: 163) Fiji and its surrounding island groups were crucial to the Allied protection of Australia because they acted as a vital link in the lines of communication and supply between Australia and the Americas.

This imminent threat led to the development of more intense defenses and military forces in Fiji provided by New Zealand first and later the United States. These defensive efforts will be discussed in more detail in the data chapter. The Japanese advance was stopped with the Battle of Midway in early June of 1942. In the Allied counter-offensive, Fiji served as a forward base for troops and supplies. It also contained medical facilities for recovering injured troops during the Solomons campaign. The Fiji Defense Force also developed and expanded to the point where it was known as the Fiji Military Forces. As the war progressed closer to Japan, Fiji's role became less significant. Despite the eventual phase out of Fiji's importance in the war, the effects of the War in Fiji as well as its physical would remain for many years after its conclusion.

#### **Review of Literature**

A brief review of literature will be a helpful addition to this study. Discussion of some key sources concerning the archaeology of contemporary conflict will be a useful introduction to the field. A summary of some of the types of World War II fieldwork that has been done in the Pacific is also provided to better acquaint the reader with the diverse types of research going on in the Pacific and how this particular study falls among them.

#### The Archaeology of Contemporary Conflict

Within battlefield archaeology, a recent movement has come about with a developing focus on the archaeology of contemporary conflict. John Schofield (2005) examines the archaeology of 20<sup>th</sup> century combat. He explains a number of purposes for conducting the work such as locating aircraft crash sites, reestablishing the memory of a specific event, the recovery of human remains, as well as interpretation or material remains for a clearer understanding of the conflict. Schofield also discusses several issues of preservation and cultural resources management for recent conflict sites (Schofield 2005).

Schofield served as editor of another discussion of more recent military archaeology (Schofield et al. 2002). This source consists of a collection of essays discussing the physical remains of human conflict ranging from World War I to the end of the Cold War. The editors of this volume argue that the twentieth century has a distinctive material culture defined by advances in science and technology, the emergence of total war, the global scale of conflict, and the acceleration of the war process. Key themes in this book are the diversity and form of the material record, and the value of material culture and its contributions to contemporary society (Schofield et al. 2002). These sources show the increasing interest in the archaeology of contemporary military conflict, as well as some of the key issues of the work being done. *Fieldwork in the Pacific Theater* 

A considerable amount of fieldwork has been conducted in the Pacific on World War II remains. Raymond Wood (1991) compiled a number of articles on fieldwork. The purpose of this compilation is to exhibit early results of World War II archaeology before a wider audience and to acquaint a broad spectrum of archaeologists with the field. The collection contains a number of useful articles. Russell and Fleming (1991) discuss the excavation of a Japanese mass grave,

which is possibly related to a massive suicide charge, which occurred at the end of the battle on Saipan. Kuttruff's (1991) study combined various forms of historical and photographic documentation with an archaeological survey of static defenses on the island for the purpose of accumulating and documenting all possible records on the subject. Butler and Snyder (1991) explain the archaeology of the Japanese occupation and defense of Palau Island. The authors divide the military sites into three categories: larger fixed installations such as air strips and bases, small hardened defensive positions like bunkers and pill boxes, and hastily erected earthwork defenses like trenches and foxholes. This diverse collection of articles shares the common theme of the great research potential of World War II archaeology.

Another key fieldwork source is an article by Bulgrin (2005), in which artifact distributional data from a residential complex is interpreted to discuss infantry combat during the invasion of Saipan. This article illustrates how valuable details about the battle and combat can be learned from the artifact distribution at a seemingly insignificant site of a small group action.

State commissioned field reports are also an excellent example of World War II fieldwork being done in the Pacific. Several countries around the Pacific have commissioned surveys of the World War II remains on the islands. Henrik Christiansen has written four volumes on *The Archaeology of World War II in the Marshall Islands*. Each volume has essentially the same format, only focusing on a different individual island. The reports each have background information and descriptions of the islands, the specific military history of the island, the archaeological survey, and a summary of their findings. Two field reports from Saipan and Palau are also relevant to battlefield archaeology in the Pacific. Denfeld and Russell (1984) discuss a survey of the B-29 bomber base on Saipan. Denfeld (1998) discusses the historical background of the battle for Peleliu and presents the archaeological survey of remains.

These field reports are excellent examples of fieldwork being done in the Pacific and provide valuable insights into the conflict archaeology of the region.

#### Method Chapter

The goal of this study is to assemble an inventory of significant World War II heritage sites on Viti Levu and assess their state of preservation. In order to achieve this goal, a number of different research methods were employed. Both historical and archaeological research methods were used in order to gain a more solid understanding of Fiji during the Second World War. The study focuses on Viti Levu because that's where the majority of defenses and structures are located. Lowry explains the military reasoning behind this logic: "The capital and most of the colony's infrastructure was on the main island, Viti Levu, making it the most critical point in the archipelago. Seizing any of the other islands would leave attacking forces vulnerable to air forces operating from Viti Levu." (Lowery 2006: 4)

The sites discussed in this study were chosen based on the concept of significance. A list was assembled with the help of an informant from the historical archaeology department at the Fiji Museum. The list of sites is also based on secondary research of Fiji during the Pacific War. The concept of significance should be addressed for the discussion concerning the selection of appropriate sites for the inventory. When examining cultural heritage sites, it is important to determine who cares about the preservation of the sites and for what reasons. The significance of the World War II sites in Fiji is an interesting case. The historic preservation of cultural heritage is maintained by three main bodies: the government department for town and country planning, the Fiji Museum, and the National Trust. These organizations are underfunded and understaffed, but do there best to preserve and maintain cultural heritage. In terms of WWII sites, two locations in Fiji are maintained by the National Trust, and another is gazetted by the Fiji Museum. Gazetting is a process that declares a site historically significant and provides protection from contemporary development efforts. World War II sites on Viti Levu were

declared significant based on designations by the National Trust, recommendations from the Fiji Museum, as well as the personal judgment of the author. The criteria for historic preservation by the Republic of the Marshall Islands provided the author with good reasoning for placing certain sites on the inventory. Several of the criteria are met by the World War II sites of Viti Levu. The document states, "Possession of social historical value: the property is associated with a particular historical period, process, or trend in the social history of the Republic of the Marshall Islands." (Spenneman 1992: 54) This criterion applies very well to the World War II sites on Viti Levu. They are all representative features of a crucial historical period in the nation's history. A variety of the sites meet other aspects of the lists' values, but that point was the most applicable. The general public of Fiji has a variety of views concerning the preservation of the sites. Some landowners seem interested in restoring and preserving the sites for tourist profit, while others do not seem to have a vested interest in the preservation of World War II remains.

Library research was conducted in order to find both primary and secondary sources. The secondary sources provide relevant background information about Fiji during World War II. Primary sources are used as an independent data set from the material record of the sites. Correlation between the historical and archaeological record will provide a more complete picture of Fiji during the war years. I was also able to access some specific information about certain sites from library research.

In terms of archaeological fieldwork, I made an effort to perform a first-hand examination of as many sites on the list as I was able. At each location, I examined the primary features of the site and took notes about its condition of preservation. I also photographed these sites in detail. Temporal and financial constraints hindered me from visiting every significant site on the island. There simply was not the time and the money available to travel to each location

and examine its condition. However I did obtain information about sites I was not able to visit from the Fiji Museum and secondary sources. I focused my research around Suva because there is a representative concentration of sites around the city. The sites around Suva were also more accessible for the author because an archaeologist from the Fiji Museum was willing to serve as a guide. The help received from the Fiji Museum greatly facilitated the research process. Inaccessibility either because of distance or by law hindered the development of the project. Several locations were not open to the public and their assessment is based on secondary research.

The research methods employed in this study were satisfactory tools for completion of academic goals. They allowed the author to complete the goals of the study in a severely limited time frame.



Image 1: Tunnel Exploration Attire for Fieldwork (photo courtesy of the author)

#### Data Chapter

This chapter will serve as a synthesis of all the information I have gathered through

fieldwork and library research about each site. I will divide the chapter into sections based on the

different categories of locations. For each site, the location, state of preservation, and all relevant

historical information will be given from both primary and secondary sources.

#### List of Sites:

#### Batteries

- 1. Veiuto Battery, also known as Suva Battery: located on the grounds of Parliament
- 2. Nasosonini Battery, also known as the Flagstaff battery: located on the grounds of the forum secretariat, associated with a radar station in Flagstaff
- 3. Momi Battery: located in Nadi
- 4. Bilo Battery: located in Lami
- 5. Lomolomo Battery: located in Lautoka

#### Hospitals

- 1. Tamavua Hospital Complex- contains underground features as well
- 2. Fiji College of Advance Education: served as hospital during the war, was QVS before that.

#### Tunnel Systems

- 1. Complex near the Fiji Museum
- 2. Cunningham Tunnels
- 3. Complex in Nadi, AFL compound

#### Airports

- 1. Suva (Nausori)
- 2. Nadi

#### Other Buildings

- 1. The Boron House: served as headquarters during the War
- 2. USP Lower Campus: Part of a Seaplane base in Laucala Bay before the war and became USP when New Zealand gave it up in 1968

#### Other Features

- 1. Albert Park: Sight of many parades and formal ceremonies
- 2. Suva Seawall
- 3. Suva War Cemetery

#### **Battery Complexes**

There are six battery complexes on Viti Levu. A battery is a parapet or fortification equipped with artillery. In Fiji's case, batteries were used as the primary method of coastal defense. The batteries locations are concentrated around Suva and Nadi, since those were the two most likely points for a coastal invasion from the Japanese.

The Suva Battery, also known as the Maukinau Battery, stands on the grounds of the Parliament. The guns have long since been removed, but the emplacements still remain. The Battery complex also contains a bomb shelter, a search light station, the foundation of an unidentified structure, and a command post. The foundation of the unidentified structure now houses a cell phone tower. The searchlight station contains a rifle rack potentially from the war era. There was evidence of contemporary intrusion, mainly in the form of graffiti. The damage was not extensive.

Construction of the Suva Battery began in September of 1939. (Howlett 1948: 18) Dummy guns were put in place until the real guns arrived in December of the same year. The Fiji Military Forces's history on their web page provides and account of the placement of the guns: "The first two 4.7" guns were brought into the country on board the HMS Leander. A blackout was observed within the Suva vicinity to allow the two guns to be conveyed to the Muanikau hill to avoid the enemy's knowledge of its location." (http://www.rfmf.mil.fj/) The barracks of the battery were completed in January of 1940. The first test shot from the 4.7" guns was fired in March of 1940. (Howlett 1948) In December of 1940, the search light was completed and twenty four hour manning of the battery began.

One of the key incidents in the history of the battery occurred on December 6, 1940. The *Taka Chicha Maru*, a Japanese cargo vessel, ignored a stop warning. The battery fired a warning

shot and the vessel retreated. Military historian Howlett suspects that the incident was an intentional attempt to gain intelligence about the range of the battery. He states, "It was believed that this fire was deliberately drawn in order to plot the position of the battery. That the Japanese had definite information concerning the range and position of the guns is certain as it was no coincidence that when a Japanese submarine surfaced after firing two torpedoes at the "Monowai" early in 1942 it was just beyond the extreme range of the new heavy guns." (Howlett 1948: 18) This historical anecdote is a valuable piece of information relating to the battery.

Work was approved for two new batteries in early 1941. The two 4.7" inch guns were taken from the Suva Battery and taken to Bilo where they were mounted in August, 1941. Two new 6" guns were brought in and mounted in January 1941. The Suva Battery was operational from March 1940 to January 1941 with two 4.7" guns. It was then operational from February 1941 to February 1944 with two 6" guns. Its main purpose was the examination and seaward defense of the Suva peninsula.



Image 2: The Suva Battery on the Grounds of the Parliament (photo courtesy of author)



Image 3: The Gun Mount at the Suva Battery

The Momi Battery is located outside of Nadi. The Momi Battery is maintained by the National Trust and is completely restored. The eight cement structures have been painted with the traditional camouflage and the grass around the area is kept short. The site has been developed as a tourist site and admission can be paid for access to the site and a small accompanying museum. There are two 6" naval guns, each in a separate defensive bunker. The structures around the site include an observation/command post, a fire control room, a rest room, two ammunition storage rooms, a ranger finder, and a magazine room.

(http://www.nationaltrust.org.fj/) This is the best preserved and maintained battery site in Fiji.

The Momi Battery was operational from May 1941 until February 1944. It functioned as an examination battery and served for the seaward defense of Navula Passage. Navula Passage was the main access point for the West of the island that the Japanese would have used during a coastal invasion. Construction of the battery occurred from October 1940 through April 1941. A bulldozer was used to stabilize the foundation. The gun platforms were placed on key positions on the hill followed by the pedestal and cradle. Local labor was used during the construction. Supplies were transported on cane trains from Lautoka until a road was built to the Momi area by the New Zealand military. It was the first road ever built in the area. The New Zealand Expeditionary Forces's30<sup>th</sup> Battalion was responsible for the construction of the Momi Battery. It was later manned by the 14<sup>th</sup> battalion of the New Zealand Army. In August 1942, the United States 283 Coastal Artillery Battalion took over manning the battery. The 1<sup>st</sup> Heavy Regiment Fiji Artillery of the Fiji Military Forces was also involved with serving at the battery.

The Momi Battery fired towards a potential threat on one occasion in the recorded history of the site. It occurred in mid-November, 1943. Captain Andrew Grant of the US Army recounted the event. He described how the listening station at Momi was detecting an unidentified vessel approaching the entrance of the bay. Nothing was detected on the surface radar, which led personnel to believe that it was a potential enemy submarine. Grant states, "After some discussion, the battalion commander decided to fire a couple rounds in the area to see what developed. A gun crew of qualified gunners was broken out and two rounds were duly fired. No further sounds were reported by the listening station and that was the end of the incident." (Momi Battery Museum) This one incident stands out as the main instance of use of the battery for Fiji's defense.



Images 4 and 5: Momi Gun Point Today and in 1941 (Photo 4 courtesy of the author, Photo 5 courtesy of Lowry 2006: 49)

The Bilo Battery is located in Lami near Suva. The emplacements and underground ammunition storage and accommodation all remain. However, the guns have been removed and the protective roofs over the emplacements are gone as well. It is heavily overgrown with brush and vegetation (Lowry 2006). This site was not visited by the author due to time constraints.

The Bilo Battery was operational from August 1941 until February 1944. It was outfitted with the two 4.7" naval guns that were taken from the Suva Battery when 6" guns arrived for it (Howlett 1948). Its main purpose was the defense of Suva Harbor.

The Vuda battery, also known as Lomolomo is located near Lautoka. It is visible from the Lomaloma Police Station. The site has retained its guns, but is overgrown. The battery was operational from August 1942 until February 1944. It's main purpose was defense of the Nadi Bay and Lautoka Port (Lowry 2006). The author was not able to visit this site due to time constraints.

The Nasonini Battery is accompanied with a separate radar station complex on a hill in Flagstaff. The battery is on the grounds of Secretariat for the Pacific Islands Forum. There are two emplacements still standing. A third one was destroyed for the construction of the home of the New Zealand High Commissioner. The guns have been removed the site with one exception. One gun has been cut into short pieces and lies at the lip of one of the emplacements. There is a small set of tunnels near the gun emplacements. This battery has been gazetted by the Fiji Museum. This declares it a significant historical site that should be preserved. This protection came into use when the Forum Secretariat attempted to build a tennis court on the land that holds the battery. The site is relatively well preserved. It is somewhat overgrown with vegetation. There is also some degree of graffiti damaging the site. One of the emplacements had a very valuable historical feature. The illustrated directions for operating the battery are still on the

cement walls behind the actual gun emplacement. These depictions are a valuable source of information about the operation of the battery.



Images 6 and 7: The Flagstaff Battery, Pieces of the guns on the ground near the structure



Images 8 and 9: Directions for artillery on the wall of the battery, One of the gun mounts.

The Flagstaff radar complex can be accessed from Rewa street. There are two main buildings. Their specific functions are unknown, but one can hypothesize about potential functions. One probably housed the radar equipment. The other could be a searchlight station. There is also a small lookout post. The site is very difficult to access and is completely overgrown. There also seemed to be a small tunnel like shelter on the site. The tunnel contained several potentially historical bottles. The site was badly damaged by graffiti.

Historically, the Flagstaff Battery and radar station was operational from July 1942 until February 1944. It originally held three 6" supercharged naval guns. It had a dual role of close defense and counter bombardment. Construction of the battery and radar station was undertaken in early 1942. Military historian Howell provides a valuable description of the battery construction: "A complete modern battery of three 6 in. supercharged guns on Mark V mountings was sent out from England. The site chosen allowed for extensive underground tunneling and all magazines, shelters, power rooms and plotting rooms, were 50 or 60 feet below surface. The equipment was modern and the range of the guns almost doubles that of the other 6 in. guns. At the same time that his battery was being installed, radar stations were being built and the new battery was able to operate under radar direction." (Howell 1948) The Flagstaff battery was by far the most technologically advanced of all the coastal defenses on Viti Levu. Ironically, the threat to Fiji was significantly lessened before the completion of the more adequate defenses.





Images 10 and 11: Structure at the Flagstaff Radar Complex, Grafitti in the Structure (Courtesy of the author)

#### Tunnel Systems

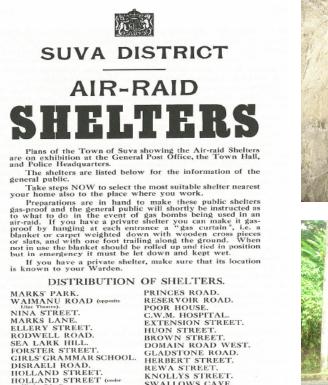
Two tunnel systems were visited by the author for the purpose of this study. Other tunnels were found near battery complexes and were thus discussed in accordance with those specific batteries. One tunnel set could not be visited due to temporal as well as safety constraints. The tunnel complex near the AFL compound in Nadi was not examined because there was not time. The author also decided that it would not be safe to attempt to explore the tunnel set without a guide from the Fiji Museum.

The tunnel complex located adjacent to the Fiji Museum was a very fascinating set of tunnels. The tunnels were blocked off after the war, but were reopened by the public at an unknown time. There was evidence of contemporary intrusion in the tunnel set. The tunnel set was much more extensive then I initially perceived. The network had different hallways, compartments, and blocked entry/exit points. There was evidence of contemporary intrusion in the form of alcohol bottles and other forms of refuse. However there were also war era bottles in the tunnels, such as coke bottles. These bottles are valuable temporal indicators from the material culture because they can be dated by their model. Little is known about the wartime function or construction of the tunnels. They could have served as a bomb shelter, but the complexity of the network could suggest a different function.



Images 12 and 13: Fiji Museum Tunnels, Coke bottle from the tunnel (courtesy of author)

The set of tunnels along Cunningham road are bomb shelters that were built under the threat of Japanese air raids. There are nine separate tunnels. Each tunnel extends in a straight line about 50 yards into the rock face. These tunnels have been frequently entered in contemporary times. There was a great deal of refuse in each of the tunnels. The function of these tunnels during the war is very well known in the present community.



DISTRIBUTION	OF SHELLERS.
MARKS' PARK. WAIMANU ROAD (opposite like Thunto). NINA STREET. MARKS LANE. ELLERY STREET. RODWELL ROAD. SEA LARK HILL. FORSTER STREET. GIRLS' GRAMMAR SCHOOL. DISRAELI ROAD. HOLLAND STREET. HOLLAND STREET. HOLLAND STREET. MISSIGN SCHOOL. OCAKOBAU ROAD.	PRINCES ROAD. RESERVOIR ROAD. POOR HOUSE. C.W.M. HOSPITAL. EXTENSION STREET. HUON STREET. DOMAIN ROAD WEST. GLADSTONE ROAD. HERBERT STREET. REWA STREET. SWALLOWS CAVE. TAMAVUA BY-PASS. WAIMANU ROAD.
Police Headquarters, 9th February, 1942.	J. E. WORKMAN, Commissioner of Police.



Images 14, 15, and 16: World War II Handout concerning air raid shelters, Interior of Cunningham Tunnels, Exterior of Cunningham Tunnels (Image 14 courtesy of Lal 1992:111) (Images 15 and 16 courtesy of the author)

#### Hospitals

Two hospitals from the war era are discussed in this study. The Tamavua Hospital Complex is still used as a hospital today. The buildings have been updated with more modern medical technology, but the buildings are a decent example of war time hospital architecture and are suffering from deterioration. Over the course of the war it was used as the New Zealand Base Hospital, the 71<sup>st</sup> Station Hospital, and the 142nd General Hospital (Lowery 1948). The Tamavua hospital had a functional underground sector during the war to protect from bombing raids. Unfortunately it could not be accessed within the limited time frame of this project.

The Fiji College of Advance Education in Nasinu also housed a hospital during the war. Before the war it served as the Queen Victoria School for boys. The school was relocated so that a hospital could be housed in Nasinu. The US 18<sup>th</sup> General Hospital was the unit stationed there. The war time hospital received some casualties from the Solomons campaign. The unit was also very active in malaria research.

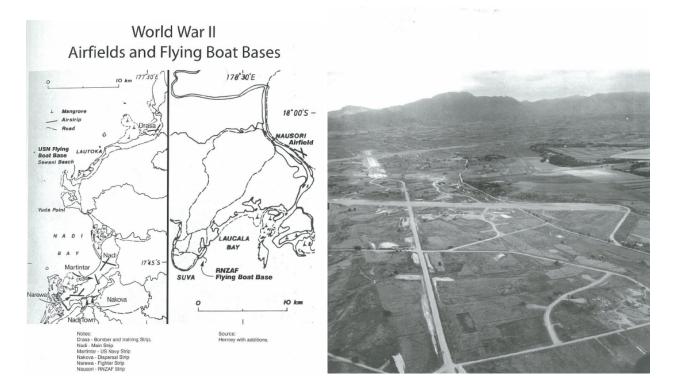




Images 17 and 18: The exterior and interior of the Tamavua Hospital Complex (photos courtesy of the author)

#### Airports

Both major airports in Fiji, Nadi and Nausori, were developed during World War II. The Nadi airport was a base for several New Zealand and United States Army Air Force squadrons and a transit stop for bombers and transport aircraft enroute to and from Australia and other bases in the South Pacific. Most of the original airstrips built during the war have been built on, but several huts and a water tower used by the Royal New Zealand air force are still used today. Both airports have been completely modernized, but their initial construction and a great deal of their starting equipment were products of the war in Fiji. There was also a flying boat base in Laucala Bay during the war. The buildings associated with that base are currently part of the University of the South Pacific's lower campus. They were donated to the University in its early stages in 1968.



Images 19 and 20: Map of Airbases, Photo of Nadi Airfield in 1943 (Lowry 2006: 19 and 54)

#### Other Locations

The Borron House, a well known mansion in the Suva area, also played a role in Fiji's World War II heritage. The house was built by a very wealthy family in the pre-war colonial days. During the war, the house served as headquarters for both the New Zealand Expeditionary Force and later the United States military in Fiji, finally the Fiji Military Forces. There are bricked entrances to the multi-chamber underground headquarters facility that can be seen on the road below the house. (Lowry 2006) It is currently functioning as the Government Guest House and is maintained by the National Trust. The author was not able to examine the site because it is closed to the public, however, it appears to be in an excellent state of preservation. (http://www.nationaltrust.org.fj/)

Albert Park was the scene of many historic parades celebrating the departure and return of Fijian troops It was also the site of the presentation of the Victoria Cross to the parents of Corporal Sefanai Sukunaivalu. It is a very representative location of Fiji's dedication to the war effort. The park is still an important landmark in Suva that is frequently enjoyed by inhabitants and visitors to the city. Rugby games and cricket matches take place there regularly.



Image 21: Victory Parade in 1946 near Albert Park (Lal 1992:124)

The Suva Seawall was originally constructed by New Zealand Army Engineers after a hurricane. During the war years it functioned as an anti-landing craft defense. The original seawall from the war has been rebuilt, but it is now an important feature of Suva harbor.

Another relevant site for this inventory is the Suva War Cemetery. It is located on Reservoir Road. It is the final resting place of both Fijian and New Zealand servicemen who died during the war. The 137 United States servicemen who died in Fiji were repatriated in the late 1940's (Lowry 2006). The cemetery is maintained very well. There are also two memorials on site to the Fijian soldiers who died in the Solomons.



Images 22 and 23: The Suva War Cemetery, Memorial to Fijian Soldiers (Courtesy of the author)

#### Analysis Chapter

The diverse material culture of World War II on Fiji can lead to a number of analytical conclusions. The historical record also contributes to a greater understanding of the time period. Correlation between the two data sources provides the clearest picture of the Second World War in Fiji. The limited scope of an archaeological inventory prevents major theoretical conclusions from being developed. However, several themes can be explored as the potential grounds for future research. Historical archaeology can be used to explain how World War II helped lay the groundwork for modern Fiji. This can be done through discussion of four categories: militarization, modernization, economics, and ethnic tension.

#### **Militarization**

The Pacific War brought about a militarization of Fijian society that has affected the nation to this day. Fiji had not truly needed a modern military for industrial warfare until the threat of Japanese invasion. In 1939, the Fiji Defense Force was a minimal organization. As a response to the outbreak of war, colonial leadership decided to increase the size and scope of the military. Enlistment quotas for the military were sent out to the various provinces of the islands. In turn, the chief from each district would ask for volunteers or nominate individuals to serve. Indigenous Fijian leadership was eager to have people fighting overseas for the British. (Ravuvu 1988: 11) They had requested to become members of the British Empire and were anxious to prove their worth as loyal subjects. (Ravuvu 1988: 11) Ordinary villagers would enlist because of a traditional duty to their chief. Ravuvu states, "The chief was not only a symbol of authority, but the manifestation of the people themselves and the land…A person's worth was judged by the extent to which he carried out his traditional obligations." (Ravuvu 1988: 12) These cultural

responsibilities led to an overwhelming indigenous Fijian response to service in the Second World War.

The military development efforts of the colonial government paid off. At its peak strength in August of 1943, the Fiji Military Force had reached 8,518 men. These numbers broke down into 6,371 indigenous Fijians, 1,070 Fiji-Europeans, 803 NZEF men, and 264 Indians. (Jackson 2006: 521) The men from the New Zealand Expeditionary Force filled a particularly important function in that they provided many officers, non-commissioned officers, and specialists. (Ravuvu 1988: 16)

Along with a need for a stronger military, the colony needed to construct better coastal defenses to prevent invasion. The Suva, Bilo, Flagstaff, Momi, and Vuda batteries are all features of the material record that represent the defensive installations against a coastal invasion. Air-raid shelters, tunnel systems, and the underground Tamavua hospital represent the threat of Japanese air attacks and illustrate the need to protect the civilian population. The Suva seawall is another feature designed to prevent landing crafts from gaining immediate access to the harbor. These material remains demonstrate the severity of the threat of a Japanese takeover in 1942.

Once the threat to Fiji had passed, the colonial government lobbied to have Fijian soldiers fighting abroad. On November 20, 1942, the name of the Fiji Defense Force was changed to the Fiji Military Forces with the specific intent of having soldiers fight abroad. This was an important transition because it made Fiji's specific military resources available for more then just defense of the colony. Eventually, Fijian troops were deployed to the Solomons campaign, where they proved to be expert jungle soldiers. They served in a limited capacity on Guadalcanal as a sort of test, and in broader roles on Bougainville and New Georgia. The troops were well

decorated for their bravery. The citations they received during the campaign include two Silver Stars, one posthumous Victoria Cross, two military crosses, four Distinguished Conduct Medals, and sixteen Military Medals. (Ravuvu 1988: 53)

The build up and subsequent accomplishments of Fiji's Military Forces greatly impacted Fijian society. Fijian identity became intertwined with the concept of military sacrifice and success. Ratu Sukuna was a valued Fijian leader responsible for much of the indigenous war effort. He stated, "Fijians will never be recognized unless our blood is shed first." The dedication and sacrifice of indigenous Fijians in the military ultimately resulted in more authority for them in the colonial government. , the overall successful involvement in the war effort resulted in the British colonial government trusting the indigenous Fijians more. The indigenous Fijians participation in the Pacific War resulted in more power for their traditional political leaders under a colonial administration. Jackson describes the reforms that were put in place, "Reforms in 1944 put control of the Fijian administration in the hands of the chiefs. A new Fijian Affairs Board, consisting of chiefs and presided over by Ratu Lala Sukuna, possessed centralized powers over the affairs of all Fijian villages." (Jackson 2006: 521) The Fijians were able to prove themselves and their own capabilities on the battlefield.

World War II brought about a militarization of Fijian society that still impacts the country to this day. The build up of defenses such as batteries and air raid shelters demonstrated the imminent threat of Japanese invasion. The development of a small defense force into a complete military organization fit for duty overseas. After the Second World War, the FMF served in Malaya in the early fifties. The Fiji Military Forces remained a strong organization after independence. The FMF has played a major role in the politics of the nation in the past twenty

years. A "coup culture" began in 1987 by a military takeover of the elected government. Today, an interim regime controlled by the military is in power.

#### Ethnic Relations

The militarization of Fiji is a related category to the development of ethnic relations during and after the war. Fiji's three main ethnic groups, Indo-Fijians, Indigenous Fijians, and Europeans, were all impacted in different ways by WWII. The relatively low number of Indo-Fijians represents a social conflict occurring in the nation. Brij Lal states, "In contrast to the Fijian response, the Indo-Fijian war effort was unenthusiastic and conditional" (Lal 1992: 121). There are several reasons behind the indifferent response of the Indian population in Fiji. Indians did not want to participate in the war effort if they would not receive the same treatment as Europeans: their stance was a platform for equal rights. Lal writes, "They would, of course, fight to defend Fiji if it were attacked, but their people were unwilling to fight for the empire in other parts of the world unless the government acknowledged the principal of equality between Europeans and non-Europeans" (Lal 1992: 121). Another reason for lack of Indian participation was a government reluctance to enlist Indo-Fijian soldiers. This was because the colonial government was reluctant to give Indo-Fijians military training for fear of a violent uprising due to their discontent with social inequality (Lal 1992: 121). The lack of Indian participation in the war effort was a source of conflict in the nation, especially compared to the exemplary response of the indigenous Fijian population, which eagerly wished to fight abroad.

The perceptions between Fijians and their colonial masters were also altered during the war. Ravuvu states, "An important feature of the war years was the increased racial contact which resulted from the influx of so many thousands of New Zealand and American soldiers...As they became familiar with the white men's habits, the deference with which they

had regarded Europeans declined" (Ravuvu 1988). This was especially true in combat situations in the Solomons. Fijians in combat roles affected cultural perceptions of equality both among islanders and the other members of the Allied forces. Fighting together eliminated many cultural boundaries that existed before the war. Ravuvu describes how this transformation occurred for Fijians. He states, "In the army Fijians also acquired insight into Western culture and all things European. The understanding and self respect they gained as soldiers made the Fijians feel themselves the equal of the white man. Europeans were regarded now as friends and equals, no longer merely as bosses" (Ravuvu 1988: 58). The practices of living, working, and fighting together strongly altered how Fijians viewed Americans and British colonial masters.

The war years also altered how the Colonial British government viewed indigenous Fijians. Fijians demonstrated their capabilities in a number of capacities. One instance was demonstrated through the manning of defensive batteries discussed earlier. Ravuvu states, "Fijian personnel for the battery were originally recruited as ammunition numbers only, but they proved themselves capable of undertaking more important tasks such as gun laying, signaling, and operation of the searchlights" (Ravuvu 1988: 24). Examples such as this over the course of the war led to an exemplary military record. The acting governor in 1944 summed up the importance of these contributions in a speech. He stated, "Out of the evil of war has come some good to the Fijian people, for it has enabled you to prove yourselves and to others that you are a sound people, able and willing to shoulder your full share of the burden of war, the greatest burden that any people can shoulder. You must see to it that the Fijian takes his proper place in times of peace" (Ravuvu 1988: 59).

The ethnic relations in modern Fiji were greatly impacted by the Second World War. Indo-Fijians lack of participation for various reasons distanced them from the rest of the

population. Indigenous Fijians and Europeans came to understand each other better through wartime experiences. They began to see each other as equals and break apart the pre-war colonial relationship.

#### *Modernization*

World War II also brought about a modernization process in its five years much more extensively than Colonialism had since 1870. The use of Fiji as a forward base brought in many troops and vast quantities of supplies. The facilities and infrastructures put in to accommodate these people brought forth many modern amenities. Douglass describes this phenomenon, "They brought with them vast quantities of material goods and with the precision expected of military operations, immediately established roads, hospitals, airstrips, harbours and prefabricated "cities" with all the necessary infrastructure" (Douglas 1996: 111). This quote is from a source that discusses the development of tourism in Melanesia, but many of its discussions are applicable to the situation in Fiji. There are many examples of this in both the archaeological and historical records.

The Tamavua hospital complex demonstrates how World War II brought about more modern medical facilities. The hospital still stands to this day and serves the surrounding Fijian community.

Other types of infrastructure were also developed for a specific war purpose, but service the community today. For instance, the first road constructed to the Momi area was built by the New Zealand military in order to aid with the transport of construction materials for the battery. Before this, residents of Momi village had to use the sugar cane transport trains to leave the area or simply walk. The road is still the only access point to the area, but it has been developed more since the war years.

The Nadi airport was developed by the New Zealand military during the war years. It now serves as the main international airport in Fiji. Lal discusses the development of Nadi during the war: "Nadi was home for a large number of infantrymen, a fighter aerodrome, a trans-Pacific airport, and a command station, as well as the base for the coast, field, and anti-aircraft artillery units" (Lal 1992: 113). Modern features such as hospitals, roads, and airports, are all features of the material record that helped modernize the nation and are utilized to this day.

#### *Economics*

World War II also had a major economic impact on Fiji. This impact can be seen in two major ways. Firstly, it greatly increased the reliance on a cash economy in the nation. Secondly, the war was essential in jumpstarting the tourism industry. This industry has become a crucial source of income for the nation today.

The use of Fiji as a forward base brought about thousands of troops with money to spend as well as a variety of jobs for locals that paid cash. A Fijian labor corps was formed in order to handle all the necessary jobs such as construction and supply loading. Douglas states, "Many Melanesians found they had access to more rewarding forms of labor with the armed forces compared to plantation labor, until then practically their only entry into the cash economy" (Douglas 1996: 117). Soldiers from New Zealand and America also brought about many changes with their spending habits. Lal describes the situation: "American soldiers thronged the streets, hotels, and cinema houses in town, paid high prices for meals and souvenirs and laundry work, and shared cigarettes and chocolate" (Lal 1992:116). The mass influx of troops greatly altered the economy that had developed in Fiji during the colonial years. Lal synthesizes the effects of cash infusion into a subsistence based economy: "In some koro, on the western side of Viti Levu, tinned fish, meat, and biscuits began to replace traditional items of exchange. There also Fijians

neglected their communal duties and relied instead on their own individual labor for food. Some koro surrounding Nadi became dollar conscious as trinkets that had fetched only a few pennies before the war were snatched up for handsome prices by the departing soldiers" (Lal 1992: 115). The cash economy that developed in Fiji during the Second World War had a major impact on Fijian society.

World War II also helped develop the tourism industry in Fiji. The thousands of soldiers who entered Fiji could technically be classified as tourists. They created a new market for handicrafts and souvenirs. Douglass describes the situation in Melanesia, which was very similar to Fiji. He states, "The Islanders learnt to accommodate the troops in a variety of ways. Instead of currency the Melanesians often used cultural artifacts as trade for items like soap, cigarettes, tinned meat, sweets and biscuits, which arrived by the ton with the troops." (Douglas 1996: 117) The development of a souvenir market as well as the availability of other western amenities was one way World War II helped develop tourism in the pacific.

Besides the souvenir trade, World War II also left behind a great deal of transportation technology that allowed for tourism to take place after the war. In Fiji, the airports, boats, and roads developed by the military made transportation around the islands much easier. Douglas describes the impact of the war on transportation in Melanesia. He states, "World War II had radically changed the travel business, leaving a legacy of advanced technology in aircraft design and manufacture, a surplus of aircraft, an increased awareness of other cultures and geographic location and a stepping path of excellent airfields across the Pacific Ocean" (Douglass 1996: 223). These technological advances made travel for tourists much more feasible in the far away Fiji Islands.

#### Conclusion

When one first thinks about Fiji during the Second World War, it would seem that the islands remained untouched by the global conflict. The Japanese advance was stopped before they could invade, and a major battle never occurred there. Despite the lack of a violent clash on the islands, the global conflict greatly impacted the islands and ultimately developed many aspects of modern life in Fiji. The threat of Japanese invasion in 1942 caused a build-up in defensive measures that transformed the landscape of the island. Additionally, the use of Fiji as a forward base by the allies resulted in thousands of New Zealand and United States troops coming into the islands with tons of supplies. The presence of these troops brought about the construction of many modern amenities and infrastructure necessary for waging war, which further altered the landscape. World War II laid the foundation for modern Fiji through 4 major themes: militarization, ethnic relations, modernization, and economic development.

This study began an exploration of these themes, but there is much research yet to be done. This historical archaeological inventory of World War II has compiled a list of World War II sites on the main island of Viti Levu. It has assessed their state of preservation. Relevant information from the historical record has been researched for each site. Many of the sites have been recorded through photo documentation. As many sites as possible have been visited with respect to temporal as well as financial constraints.

The sites on Viti Levu are in varying states of preservation. Contemporary intrusion and vandalizing were common problems in a number of the sites. Graffiti was found on both the Suva and Flagstaff batteries as well as at the radar station. The issue preservation of these sites will definitely come to the forefront as development projects around Fiji come to the forefront.

The Flagstaff battery was already threatened by a tennis court construction project, and could have been destroyed if not for its gazetted status.

Fiji's World War II heritage is an important cultural resource that could be preserved and valued by the contemporary society of the nation. Some locations are still an active part of everyday life such as Nadi airport or Albert Park in Suva. Others stand as well preserved and maintained reminders of the past such as Suva War Cemetery and the Momi Gun Battery. Others lie forgotten and overgrown like the Flagstaff radar station and the Vuda Battery. Many of the sites are threatened by development. All of these locations serve as a reminder of the massive transformation that occurred in Fiji during World War II. An excerpt from a Fiji Times article about the preservation of the batteries effectively articulates the importance of structural reminders in human memory. Wesly wrote, "Structures and memory sometimes combine to remind us that certain places are special. They prick at the inner sanctums of our memory. They inch out different emotions in different people. They may be rich in historical value that they deserve a significant place in the mechanics of life." This historical archaeological inventory is a representative sample of Fiji's World War II heritage and their preservation and restoration should be considered by the general public of Fiji. The historical period of World War II was an important period in Fiji's history. Many Fijians look back on this period with a sense of pride and accomplishment. It would make sense to celebrate this heritage by preserving some of the physical reminders of this era.

#### Works Cited/Consulted

#### Bulgrin, Lon

The Tudela Site: Fire and Steel Over Saipan, 15 June 1944. *Journal of Conflict Archaeology*. 1(1): 1-18

#### Butler, Brian, and David Snyder

1991 An Archaeological Landscape of the Pacific War: The Palau Islands. *Archaeological Studies of World War II*. University of Missouri Press, Columbia. Monograph Number 10: 48-63.

#### Christiansen, Henrik

1994 *The Archaeology of World War II in the Marshall Islands*. 4 vols. Historic Preservation Office of the Marshall Islands

#### Denfeld, D. Colt and Scott Russell

1984 *Home of the Superfort: An Historical and Archaeological Survey of Isley Field.* The Micronesian Archaeological Survey.

#### Denfeld, D. Colt

1998 Peleliu Revisited: A Historical and Archaeological Survey of World War II Sites on Peleliu Island. The Micronesian Archaeological Survey.

#### Douglass, Ngaire

1996 *They Came for Savages: 100 Years of Tourism in Melanesia*. Southern Cross University Press

#### Howlett, Robert

1948 *The History of the Fiji Military Forces 1939-1945*. Crown Agents for the Colonies on behalf of the Government of Fiji, London.

#### Jackson, Ashley

2006 The British Empire and the Second World War. Hambledon Continuum, London.

#### Ravuvu, Asesela

1988 Fijians at War. South Pacific Social Sciences Association, Suva.

#### Russell, Scott and Michael Fleming

1991 A Bulwark in the Pacific: An Example of World War II Archaeology on Saipan. *Archaeological Studies of World War II*. University of Missouri Press, Columbia. Monograph Number 10: 13-28.

#### Schofield, John

2005 *Combat Archaeology: Material Culture and Modern Conflict*. Gerald Duckworth & Co., London.

#### Spennemann, Dirk

1992 Apocalypse Now? The Fate of World War II Sites on the Central Pacific Islands. *CRM Bulletin: A National Park Service Technical Bulletin* 15(2):15-22.

#### Spennemann, Dirk

1992 *Historic Preservation Legislation*. Ministry of Internal and Social Affairs, Historic Preservation Office, Majuro Atoll.

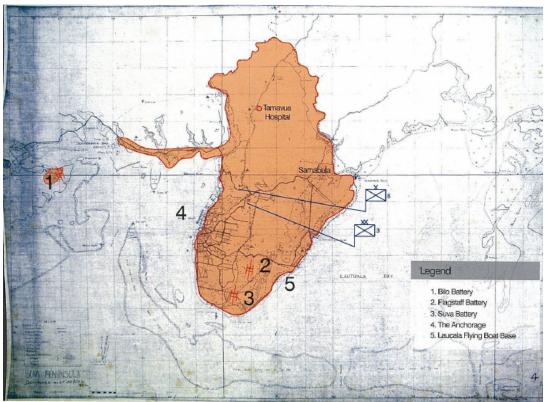
#### Van der Vat, Dan

1991. The Pacific Campaign. Simon and Schuster, New York.

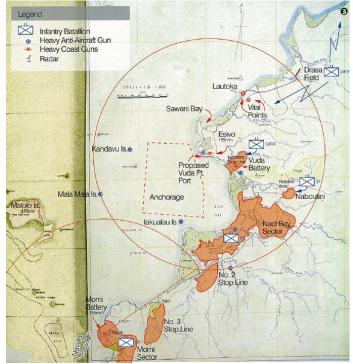
#### http://www.nationaltrust.org.fj/

http://www.rfmf.mil.fj/

## Appendices



Map of Suva Area Defenses (Lowry 2006: 17)



Map of Western Area Defenses (Lowry 2006: 16)