

MANILA GALLEONS IN THE COMMONWEALTH OF THE NORTHERN  
MARIANA ISLANDS: AN ANALYSIS OF THE CULTURAL IMPACTS ON  
*SANTA MARGARITA AND NUESTRA SEÑORA DE LA CONCEPCIÓN*

by

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ABSTRACT

Between the 16th and 18th centuries, Spain prospered as a dominant trading empire with the help of the Manila-Acapulco galleon trade network. While Spain's empire grew with the trade network, some disasters struck Manila galleons on their voyages. To date, two of those shipwreck sites have been identified in the Commonwealth of the Northern Mariana Islands (CNMI): *Nuestra Señora de la Concepción* off the coast of Saipan and *Santa Margarita* off the coast of Rota.

The remains of *Nuestra Señora de la Concepción* and *Santa Margarita* are significant sources of information about Indigenous Chamorro culture, the Manila-Acapulco galleon trade network and more broadly, the Spanish trade empire in the 17th century. Both sites, however, have been impacted by post-wrecking activities of looting and salvage. Immediately after the wrecking events, the two shipwrecks were salvaged by both Chamorro people and the Spanish government. Starting in the 1980s, stories of Spanish treasure on galleons captivated modern treasure hunters and prompted salvage of these shipwrecks, which in turn led to destruction of

archaeological context.

There is limited information from both the Chamorro populations and the treasure hunting companies about these shipwrecks. In addition, no comprehensive archaeological surveys, excavations, or reports of these two shipwrecks have yet been completed that were not driven by monetary gain. Because our archaeological knowledge of these shipwrecks is limited and the archaeological contexts have been disturbed, it is important to learn as much as possible from the local Chamorro people and the treasure hunting companies using their oral histories, reports, and records.

Based on site formation processes, actor-network theory, and shared heritage frameworks, this thesis analyzes the cultural impacts of post-wrecking activities, specifically the contemporary and commercial salvage, carried out at the *Nuestra Señora de la Concepción* and *Santa Margarita* sites to enhance our understanding of the two ships. The methods for analyzing and examining the activities include archival and historical research, textual analysis, oral histories, and an ESRI Story Map. Some archaeologists may dismiss these shipwrecks because they have been salvaged by treasure hunters, however, these two shipwrecks provide some data that can add to the knowledge base about the Spanish empire during the 17th century, as well as the Manila-Acapulco galleon trade network.



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A Thesis

Presented to the Faculty of the Department of History  
East Carolina University

In Partial Fulfillment of the Requirements of the Degree  
Master of Arts in Maritime Studies

by

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Mama and Papa,  
Para sa inyo po ito

Atchie

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## Abbreviations

ACUA	Advisory Council on Underwater Archaeology
AGI	<i>Archivo General de Indias</i>
AGN	<i>Archivo General de la Nación</i>
ANT	Actor-network theory
APCONF	Asia-Pacific Conferences on Underwater Cultural Heritage
CNMI	Commonwealth of the Northern Mariana Islands
CRM	Coastal Resource Management
DEQ	Division on Environmental Quality
ECU	East Carolina University
ESRI	Environmental Service Research Institute
GIS	Geographic Information Systems
HPO	Historic Preservation Office
IOTA	IOTA Partners
MARC	Micronesian Area Research Center
MCAAH	Mayor's Commission on African and Asian Heritage
MN	<i>Museo Naval</i>
NMHC	Northern Marianas Humanities Council
NMI	Northern Mariana Islands
NPS	National Park Service
PGIS	Participatory Geographic Information Systems
PSR	Pacific Sea Resources
PUSH	Promoting dialogue and cultural Understanding of our Shared Heritage
RAH	<i>Real Academia de la Historia</i>
RPA	Register of Professional Archaeologists
SFP	Site formation processes
SHA	Society of Historical Archaeology
UNESCO	United Nations Scientific Educational and Cultural Organization
USACOE	United States Army Corps of Engineers
WQC	Water Quality Certification



## Chapter 1 Introduction

### *Introduction*

Between the 16th and 18th centuries, Spain emerged as a dominant trading empire with the help of the Manila-Acapulco galleon trade network. In this network, ships referred to as Manila galleons transported valuable commodities such as porcelain, silver, textiles, and spices between Manila, Philippines and Acapulco, Mexico (FIGURE 1.1) (Giráldez 2015). In order to facilitate the Manila-Acapulco galleon trade network, Spain established colonies and bases throughout the Pacific and Atlantic regions, including in the Mariana Islands.

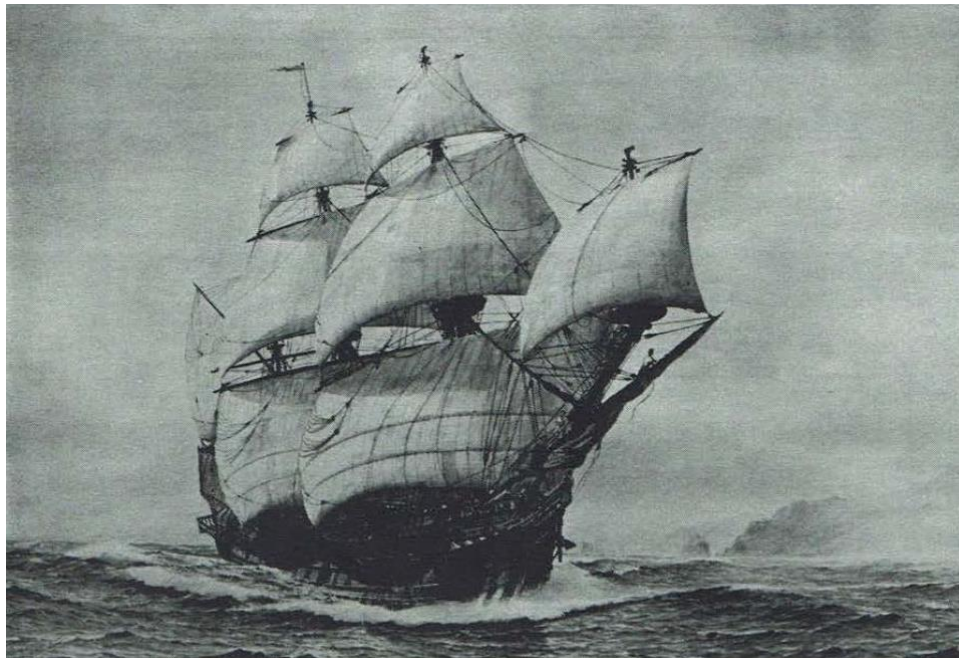


FIGURE 1.1. Artist Roger Morris' rendition of a Manila galleon. The painting is currently located in the NMI Museum of History and Culture (Mathers et al. 1990:4).

In the 400 recorded voyages of Manila galleons that occurred between 1565 and 1815, there were approximately 59 known incidents of shipwrecks (Isorena 2015:63). In total, only seven Manila galleons shipwreck sites have been identified and studied (Junco 2011). Three shipwrecks, *Nuestra Señora de la Concepción (Concepción)*, *Santa Margarita* and *Nuestra Señora del Pilar de Zaragoza y Santiago*, have been identified in the Mariana Islands. Two

galleons, *Santa Margarita* in Rota, and *Concepción* in Saipan are located in the United States (US) Commonwealth of the Mariana Islands (CNMI), whereas *Nuestra Señora del Pilar de Zaragoza y Santiago* is located in Guam, a US island territory (FIGURE 1.2). The focus of this thesis is on the two shipwrecks located in the CNMI: *Santa Margarita* and *Concepción* (FIGURE 1.3).

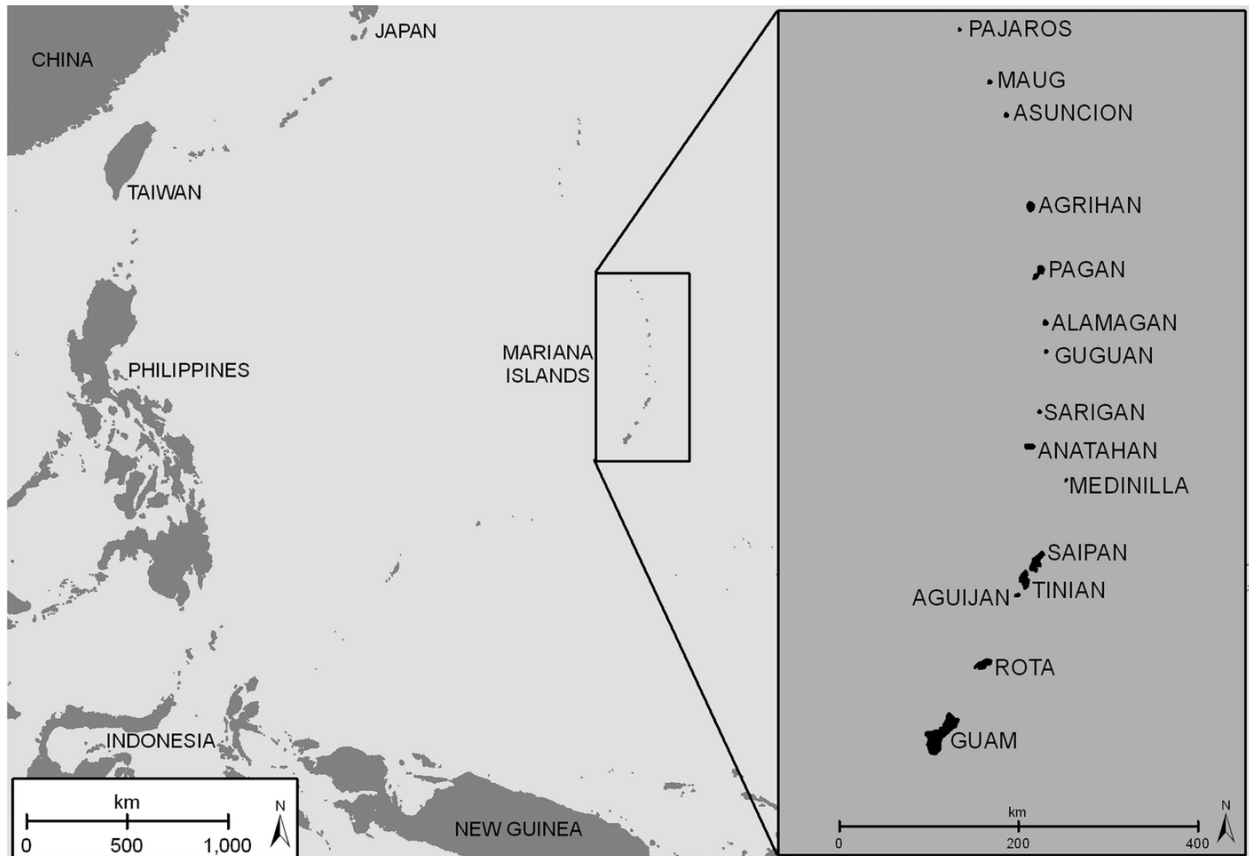


FIGURE 1.2. Northern Mariana Islands in the Pacific (Image by Mike Carson, 2019).

These two shipwrecks have experienced two post-wrecking impacts: contemporary salvage by Chamorro populations and the Spanish government, and modern treasure salvage by treasure hunting companies. In the case of contemporary salvage, these activities add to the archaeological record, and in the case of treasure salvage, these activities disrupt or destroy archaeological context of the sites (Mathers et al.1990; McKinnon 2017). In addition, so far there has been no

comprehensive archaeological surveys, excavations, or reports for these two shipwrecks that was not driven by monetary gain (McKinnon 2017).

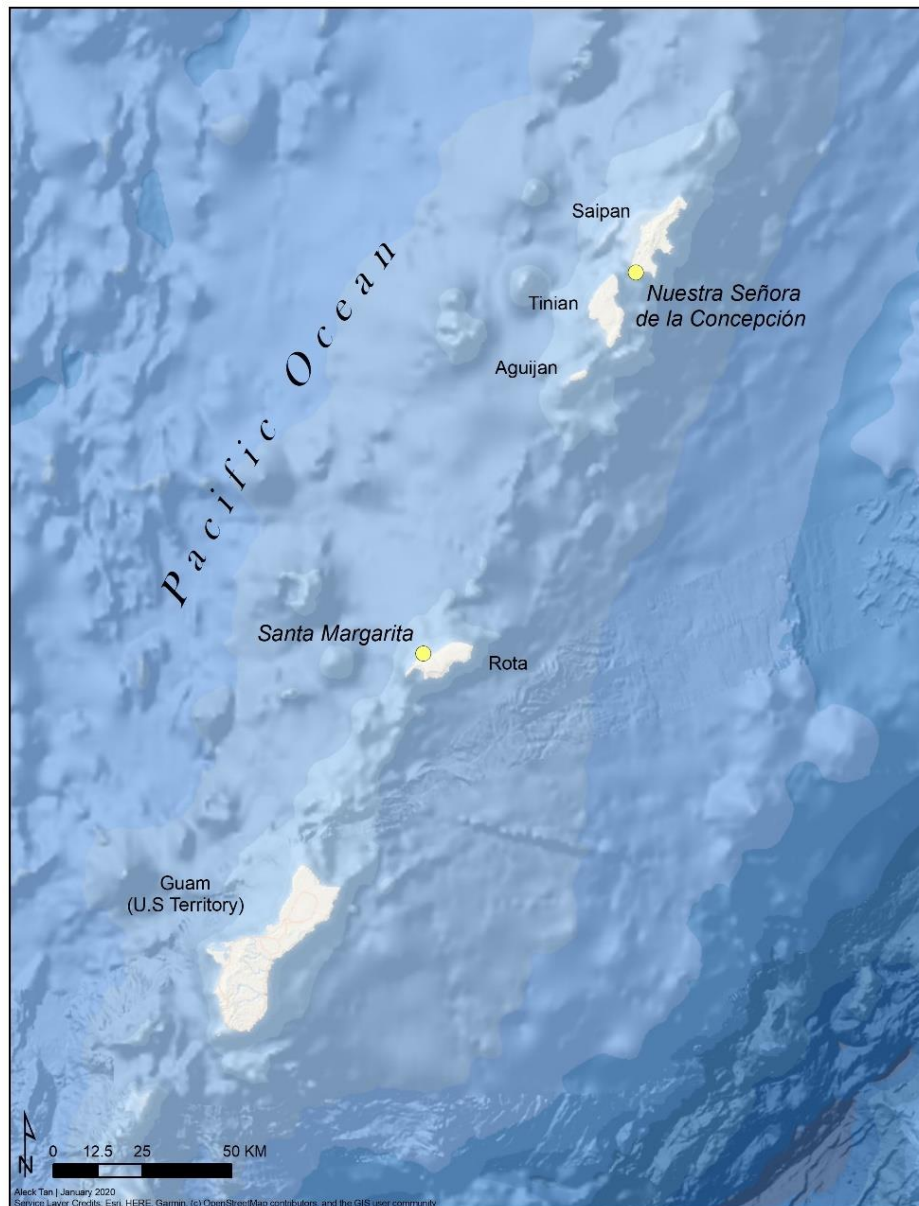


FIGURE 1.3. Map of the identified Manila galleons in the CNMI (Image by author, 2020).

As such, archaeological knowledge of these shipwrecks and their roles in the Manila-Acapulco galleon trade network are limited to artifacts, historical documents, and oral histories with local Chamorro people, and surveys and salvage reports conducted by treasure hunters. The

primary aim of this thesis is to learn more about the galleons and to analyze the post-wrecking activities and their cultural impacts on the shipwrecks. Understanding the cultural impacts of the post-wrecking activities may reveal more archaeological data and information about site formation processes (SFP) of the two shipwrecks in the CNMI. Some archaeologists may dismiss shipwrecks that have been treasure hunted such as these two, however, it is important to reevaluate them as they may still provide important archaeological information that can add to our knowledge base of the Spanish empire during the 17th century, of the Manila-Acapulco galleon trade network, and of Chamorro activities and values.

### *Research Questions*

In this thesis, there are two goals. The first of these relates to understanding the role of *Santa Margarita* and *Concepción* in the Manila-Acapulco galleon trade network, and the Spanish colonization period during the 17th century. The second goal is to identify and analyze how the post-wrecking activities of contemporary and commercial salvage on these two shipwrecks have influenced our knowledge of them, Chamorro culture in the CNMI, and the Spanish colonial period and galleon trade network during the 17th century. In order to address these two primary goals, the history of the Manila-Acapulco galleon trade network and the Spanish colonization period, the shipwreck stories, Indigenous interaction with the shipwrecks, commercial salvage activities, and the ethical debate between archaeology and commercial salvage was considered. A thorough analysis of the cultural impacts from contemporary and treasure salvage activities was conducted in order to better understand how Indigenous populations and treasure hunting companies interact with the shipwrecks and affect our knowledge and archaeological evidence of them.

To achieve these research goals, the following research questions will be addressed:

1. How do *Santa Margarita* and *Nuestra Señora de la Concepción* represent the status of the Manila-Acapulco galleon trade network and the Spanish empire in the 17th century?
2. What cultural activities and impacts have shaped the sites as they are today? What are the post-wrecking activities on these two sites?
3. How have these post-wrecking activities and cultural impacts affected SFP and our knowledge of the sites and the Spanish trade empire in the 17th century?

### *Justification*

Information obtained during this research may add to the limited knowledge base of the Manila-Acapulco galleon trade network and the Spanish empire during the 17th century. Examining positively identified Manila galleons like *Santa Margarita* and *Concepción* may provide archaeological evidence about the little-known Manila-Acapulco galleon trade network. Furthermore, an analysis of cultural impacts may add to our understanding of how Chamorro populations interacted with Spain and the Manila galleons in historic and modern times.

The analysis of the cultural impacts of commercial and contemporary salvage operations on the two shipwrecks may also add to our understanding of treasure hunting. Overwhelmingly, these operations negatively impact sites, artifacts and context, destroying potential archaeological information and causing some archaeologists to dismiss salvaged shipwrecks. As most recorded Manila galleons have been salvaged for potential treasure, this ideology would make learning about Manila galleons and the Spanish trade network difficult. This thesis explores the notion that it may be possible to learn from commercially salvaged shipwrecks like *Santa Margarita* and *Concepción* as they can still contribute significant archaeological information. This thesis uses

these two shipwrecks as case studies to determine if commercial salvage operations may be considered archaeologically valid. The results of this thesis may help CNMI's Historic Preservation Office (HPO) to decide on future commercial salvage projects, as commercial salvors expressed interest in renewing their salvage project on *Santa Margarita* in 2016 (Koski-Karell 2016).

### *Theoretical Framework*

This thesis explores the SFP theoretical framework, as developed by Keith Muckelroy (1978), David Stewart (1999), and Martin Gibbs (2006). Muckelroy and Gibbs argue that every step or cultural impact in a site discovery or a project must be seen as an aspect of the whole operation, rather than as an independent aspect. Based on the theory of SFP, each step of a salvage or looting operation leaves cultural impacts on the shipwrecks, which may impact our knowledge of the sites. Stewart and Gibbs provide a comprehensive list of possible cultural impacts on a site (Muckelroy 1978; Stewart 1999; Gibbs 2006). The thesis analyzes the cultural impacts on the two shipwrecks in order to determine what archaeological information can be obtained about them.

To complement the SFP theoretical framework, the thesis utilizes the Actor-Network-Theory (ANT) developed by sociologists Bruno Latour, Michel Callon, and John Law in the mid-1980s (Latour 2005; Dolwick 2009). This framework focuses on the idea that actors, humans and non-humans, are associated with and connected to other actors in complex and variable relationships (Latour 2005:75; Dolwick 2009:36; Tuddenham 2012:233). These relationships create traceable networks that researchers can follow (Latour 2005:107; Dolwick 2009:37;39). Based on ANT, this thesis analyzes the numerous ways in which human and non-human actors are connected to and associated with *Santa Margarita* and *Concepción* in the

CNMI. Some examples of actors to be considered include but are not limited to: commercial salvage companies, HPO officials, CNMI, codes of ethics, archaeological standards, artifacts, auction houses, antique dealers, money, Northern Mariana Islands (NMI) Museum of History and Culture, *Santa Margarita*, and *Concepción*. Latour argues that while there may be a limitless number of actor-networks drawn, this study does not recognize all actor-networks but focuses comprehensive research on only active actor-networks (Latour 2005:148).

The thesis also explores the concept of shared heritage, as Manila galleons changed the history and people of the Mariana Islands. In the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage, the United Nations Scientific Educational and Cultural Organization (UNESCO) shared recommendations for states to protect their cultural and natural heritage for future generations (United Nations Scientific Educational and Cultural Organization [UNESCO] 1972). Heritage is viewed as important as it helps to maintain links to history for the future (Labrador 2013:14). The concept of shared heritage was developed to be more inclusive of all histories and heritage, including of under-represented and Indigenous voices (Natsheh et al. 2007; National Park Service [NPS] 2013). Exploring Indigenous peoples' engagement with Manila galleons as a part of their shared Spanish colonial heritage may enhance our understanding of these two shipwrecks (McKinnon 2017).

### *Methodology*

This thesis incorporates multiple methods, including literature and archival research, oral history, textual analysis, and an Environmental Service Research Institute's (ESRI) Story Map application. There have been many publications on the Manila-Acapulco galleon trade network, but mostly from a historical perspective, rather than an archaeological perspective. Historical

research was conducted on these publications. Archival research was conducted on primary sources in online databases and in available publications. Archival research was conducted for the CNMI HPO archives, Micronesian Area Research Center (MARC) in Guam, and the National Archives of the Philippines.

This research uses two types of textual analysis. The first method of textual analysis focuses on how commercial salvage activities compare to archaeological ethics and standards, using information presented in the salvage publications and comparing the treasure salvage activities to ethics provided by professional associations such as Society of Historical Archaeology (SHA), Register of Professional Archaeologists (RPA), and Advisory Council of Underwater Archaeology (ACUA). The goal of this analysis was to determine how salvage company activities and publications meet, or fail to meet, ethical archaeological standards set by professional organizations. The second method of textual analysis includes consideration of the themes and keywords used by commercial salvors. Some keywords and themes were present in the commercial salvage company publications and correspondences. As such, these documents were searched for themes and keywords for later comparison to archaeological themes and keywords. This analysis may reveal a bias or emphasis on profit by commercial salvors.

Using ESRI's Story Map application, a Story Map was created to share information about the galleon trade network for the public. In addition, through the Geographic Information Systems (GIS) system in the ESRI application, online interactive maps, or geovisualizations, of the voyages of *Concepción* and *Santa Margarita* were prepared in order to convey their history and wrecking process in a spatial context. Information collected from McKinnon and Raupp's 2009 Spanish heritage project was used to obtain information about sites related to Spanish heritage in the Marianas (McKinnon and Raupp 2011). Portraying stories about *Concepción* and *Santa Margarita*



in a spatial context may help to highlight and preserve Indigenous experiences from the Manila-Acapulco galleon trade network and the Spanish colonial period in the Mariana Islands.

### *Research Limitations*

Four key limitations may affect research into *Santa Margarita* and *Concepción*. These include: natural impacts, researcher bias, lack of informant reliability and lack of historical and archaeological data.

The first limitation is the consideration of natural impacts on the sites. This thesis calls for an examination of cultural impacts of the two shipwrecks, however, there are environmental impacts that may have affected the site and the artifacts in the area. As documented in Pacific Sea Resource's (PSR)'s salvage report of *Concepción* and the site inspection reports of *Santa Margarita*, the shipwrecks are in high-energy environments with strong currents that may scatter artifacts during natural occurrences (Pacific Sea Resources, Inc. [PSR] 1987b; Mathers et al. 1990). Through research and surveys at that site, archaeologists and geomorphologists have gained a better understanding of the environmental impacts of natural events in the area, which have allowed them to track where artifacts were possibly redistributed in the area (Peterson et al. 2011; Williams 2014). While environmental impacts are contributing factors to the SFP of the two Manila galleon shipwrecks in CNMI, the emphasis on this research is on cultural impacts on the shipwrecks.

The second limitation of this thesis is researcher bias. The thesis analyzes the ethics and procedures of the salvage projects, however, due to the researcher's background and training in archaeology, the results might be subjective.

The third limitation is the lack of or limited informant reliability, which could result from primary sources or informants. Primary sources like historical records might have incomplete,

incorrect, or biased information regarding the shipwrecks in CNMI. Informants also may not share everything they know about the shipwrecks or the sites' investigation and management. In McKinnon's 2009 interviews with Chamorro people, she was told, "not to ask too many questions [regarding *Santa Margarita* and its collections] or poke around too much for fear of violence" (McKinnon 2017:7). During the researcher's visit to Saipan in 2019, the shipwrecks still appear to be a sensitive subject. For this reason, CNMI agencies may control or restrict information about the salvage projects or recovered artifacts to prevent the spread of misinformation (Stefy 2017). As such, informants may have withheld or may continue to withhold information about the shipwrecks.

The fourth and last limitation is the lack of historical data and archaeological evidence, and particularly a lack of primary sources from the Filipino or Chamorro perspective. The Philippines and the Mariana Islands played a large role in the establishment and success of the Manila-Acapulco trade route yet have been underrepresented in the historical accounts and modern descriptions of it. There may be limited research and accounts available that share their perspectives. McKinnon and Raupp's (2011) previous interviews with Chamorro people could shed light on the Indigenous perspective of the Manila-Acapulco galleon trade network and the Spanish empire in the 17th century.

Another contributing factor to the lack of historical and archaeological data is the limited access to the information. From November 27-30, 2017, the 3rd Asia-Pacific Conferences on Underwater Cultural Heritage (APCONF) was held in Hong Kong. During the conference, there were various sessions where researchers from the National Museum of the Philippines were slated to present their recent archaeological research regarding Manila galleons. Yet, those researchers were not able to attend the conference (Jeffrey 2017). The absence of presenters from the National

Museum of the Philippines limited the ability to disseminate information about archaeological sites and artifacts from the trade network. In addition, many historical documents in archival databases are also not digitized. The primary and secondary sources that are in databases are in Spanish, which presents limitations due to the author's limited Spanish reading skills. As a result, accessing and reading historical documents may be challenging.

### *Thesis Structure*

This thesis is structured into six chapters. Chapter 1 is an introduction which outlines the background information, research questions, theories, methodologies, and limitations of the thesis. Chapter 2 provides a historical background of the Manila-Acapulco galleon trade network, the Spanish colonization in the Marianas, *Santa Margarita*, and *Concepción*. Chapter 3 focuses on the theoretical frameworks of the project. Chapter 4 delves into the methodologies used to answer the research questions. Chapter 5 shares the information collected about the post-wrecking impacts on the shipwrecks and the analysis of the results. Chapter 6 consists of answers to the research questions as well as concluding remarks.

## Chapter 2 Historical Background

### *Introduction*

In the late 15th century, Spain began its reach into global trade. They established a prosperous Atlantic trade network, trading European goods for metals like silver and gold from the Americas, which helped to increase their wealth. Upon exploring the Pacific in the early 16th century, Spain learned of a thriving trade network in Asia. With a desire to join the Asia-Pacific trade and extend their empire, they established the Manila-Acapulco galleon trade network connecting Asia to the Americas and Europe in the late 16th century. In the Asia-Pacific trade network, Asian goods such as textiles, spices, and porcelain were transported across the Pacific in exchange for goods like silver from the Americas. By the mid-17th century, Spain established footholds in Manila, Philippines, and the Mariana Islands to support their growing trade. With these bases, Spain exploited Indigenous resources and peoples in the region for their advantage, forever changing their cultures and societies. Evidence of Spanish colonization and Indigenous interactions in the Pacific may be seen through the shipwrecks of the Manila galleons *Concepción* and *Santa Margarita* in the CNMI, as well as the Chamorro culture in the Marianas today. While the 17th century brought Spain wealth, they lost control and power in the early 19th century due to a variety of factors, including increasing competition, restricted trade, and loss of vital colonies in the Pacific.

### *Establishment of Manila-Acapulco Galleon Trade Network*

In 1492, Spain sent explorers such as Christopher Columbus to claim the Americas (Fish 2011:18). In 1494, the Treaty of Tordesillas split the world between Spain and Portugal, with Spain owning all territories 370 leagues west of the Cape Verde Islands and Portugal owning all

territories east of the division line (Giráldez 2015:48). With their new territories in the Americas, Spain established an Atlantic trade network that operated from Spain to the Americas, known as the New World. By the 16th century, Spain had a foothold in various parts of Mexico, Cartagena, Havana, and Lima (Fish 2011:31). In 1521, Spain established a base in Acapulco, Mexico, which they called New Spain (Peterson 2014:145-146). In the Atlantic trade network, fleets traveled from Spain to the Caribbean to trade European goods such as wines, olives, fabrics, and ornaments in exchange for valuable silver, gold, and precious gems from the Americas. These minerals and gems served to fill Spain's royal treasury to fund projects (Fish 2011:31).

While Spain was establishing its Atlantic trade network, Asian and Southeast Asian regional trade networks between China, the Philippines, India, Japan, Brunei, and other areas in the region had already been prospering (Min 2013; Giráldez 2015). News of the thriving Asian trade network reached Spain, and Spain wanted to join in on the profits. Eager to benefit from their new territories and the Asian trade network, Spain sent explorers to the region in the early 16th century. Their voyages were met with varying degrees of success (Giráldez 2015:41-57).

As documented by Italian traveler Antonio Pigafetta, in 1518, Ferdinand Magellan and his fleet set out to travel from Spain to the spice islands of Moluccas, where valuable nutmeg and cloves originated (Pigafetta 1969). Even though the voyage was accompanied by disasters, mutinies, and a lack of supplies, the crew located various islands, including the Mariana Islands. On March 6, 1521, Magellan's crew encountered Chamorro populations when they landed in Umatac Bay, Guam. The Chamorro people provided fresh provisions to the crew, as "common practice among Micronesian islanders for greeting inter-island travelers. Then, in accordance with Micronesian culture, Chamorro people began taking any item they desired from Magellan's ship" (Flynn et al. 2001:xv). Historian Glynn Barratt (2003:10) documents in Pigafetta's view,

the Spaniards believed that Chamorro people stole goods and a small skiff because of their vulnerability. The Spaniards asked for the return of these items, but the Chamorro people refused. In retaliation, the crew invaded their islands, killed Chamorro people, and burned their houses and boats (Pigafetta 1969). Barratt (2003:10) argues that Pigafetta's version of events is the only surviving account and does not consider the Chamorro perspective. Micronesian historian Marjorie Driver documents that this misunderstanding of property rights and cultural practices caused Spain to call the entire chain of islands *Islas de los Ladrones* or Islands of the Thieves, a name that remained for centuries after (Driver 1991:71;1993b:5).

While Magellan's interaction with the Chamorro populations in the Marianas Islands was violent, their interactions with other Indigenous populations were fruitful. The crew navigated to other islands, traded with the Indigenous populations for supplies, and reached the Moluccas in 1522 to trade goods (Pigafetta 1969).

Despite losing four ships, many crew, and Magellan himself, the Spanish sent even more explorers to the Pacific region to exploit the goods there (Pigafetta 1969). From 1526 to 1565, explorers set out to establish a trade route through the Pacific. They were met with difficulties such as lack of experience and limited knowledge in harsh weather conditions and navigation (De Leon-Bolinao 2014). Finally, in 1565, Miguel Lopez de Legazpi and Andrés de Urdaneta claimed many islands in the Pacific, including the Philippines and the Marianas Islands, and successfully navigated a route from Manila to Acapulco officially establishing the Manila-Acapulco galleon trade route (FIGURE 2.1) (Rogers 1995; De Leon-Bolinao 2014:5). While many ships and crew were lost during exploratory voyages to the Pacific, the establishment of a trade route between the Philippines and Mexico encouraged the growth of the Spanish empire.

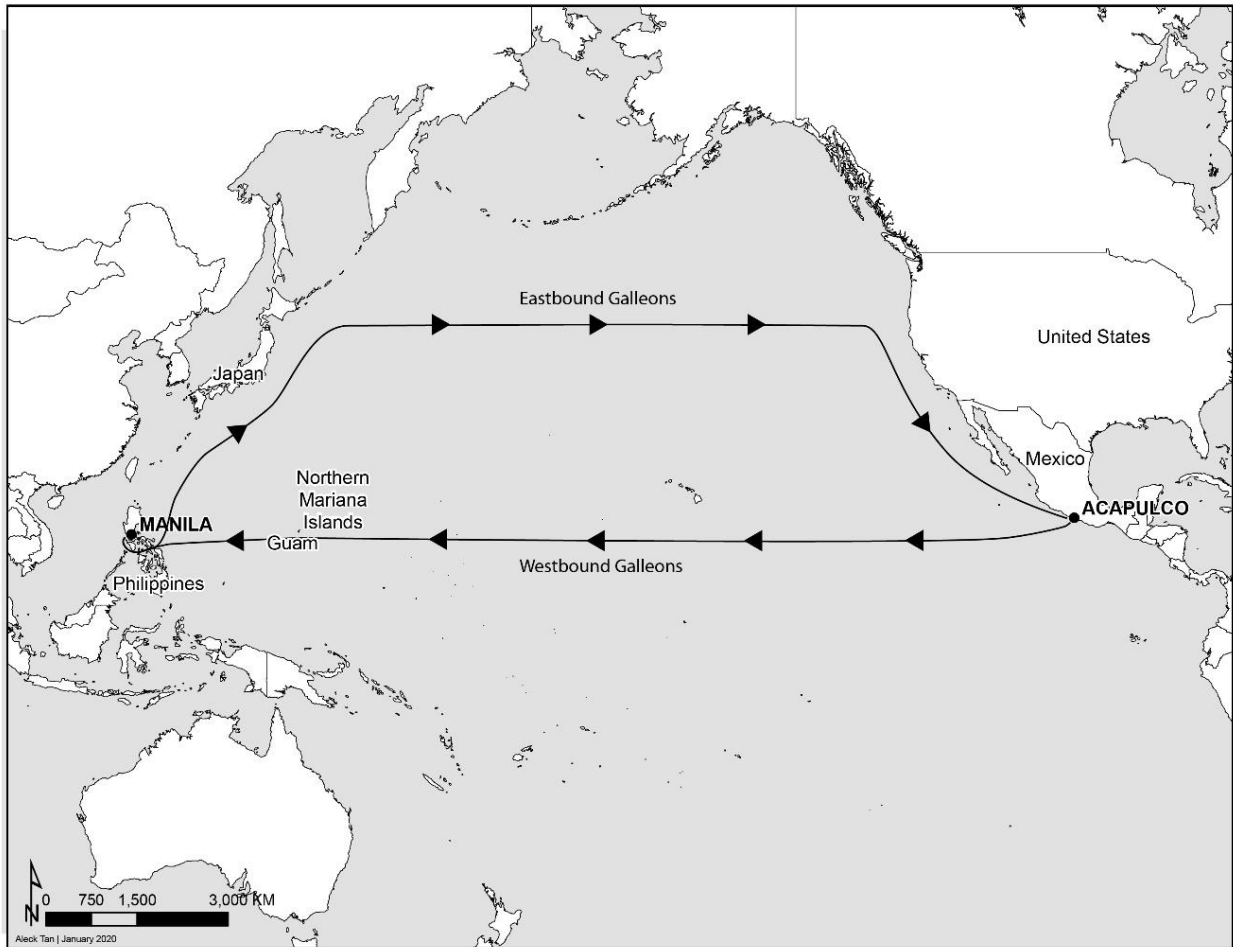


FIGURE 2.1. Manila-Acapulco galleon trade route (Image by author, 2019).

At first, Spain attempted to use the Acapulco base in Mexico to create a manageable trade route from Mexico to the Pacific (Pigafetta 1969; Peterson 2014). Spain, however, was not successful at building the foundation of their galleon trade in Mexico due to many reasons. There was a lack of raw materials to build items necessary for the ships, including timber, sailcloth, arms, nails, chains, anchors, and woodworking tools. The available materials were sparse and of poor quality. Mexico also had a shortage of people to build and sail the ships (Peterson 2014:148-150;219). The desert-like environment and dry climate in Mexico, particularly in Acapulco, made it difficult for people to stay and live in the region (Fish 2011:424). Combined, these factors made it a difficult and slow process to build galleons in Mexico and engage

successfully in global trade (Peterson 2014:154). In other words, Spain simply did not have enough resources and humanpower in Mexico to further develop their galleon trade network in the Pacific. Attempts to engage in the prosperous Asian trade were futile without a base in the region.

Unlike Mexico, Manila was able to provide the cheap labor and the resources necessary to support a new Spanish colonial center and the shipbuilding industry of the Spanish galleons. The new location was ideal because it was near the agricultural province of Pampanga, located along the Pampanga River. Pampanga was able to produce the large volume of rice necessary to sustain a growing population. In addition, the river made it easy to transport these rice shipments throughout the region. Most importantly, Manila was already a developed port and trade center in the region (Peterson 2014:7-8;58;95). From Manila, goods such as silk, silver, metals, porcelain, and spices from China, Japan and Southeast Asia arrived (Orillaneda 2014:2). In *The Manila Galleon*, historian William Lytle Schurz (1939:63) shares, “To Manila the annual coming of the junks from across the China Sea was the very basis of her [sic] prosperity.” Schurz (1939:27) expands, “the two great staples of that commerce, silks from the north and spices from the south, could be gathered at Manila more easily than at any other city, and thence forwarded to Europe or to America.” Thus, Manila gave the Spanish direct access to the existing Asian trade network.

With a Pacific foothold established, Spain began to exploit the Philippines for profit. Along with using the existing trade network in the Philippines, Spain used Indigenous peoples and resources in order to benefit their goals and increase their power. For example, Indigenous peoples were familiar with the waters in the region and knew the best resources and techniques to build ships and sail them (Stead 2014). They also knew the best types of vessels, building



techniques, materials, and fertile lands in the region (Peterson 2014:67). Furthermore, Spain took advantage of the resources in the islands. The Philippines had plenty of raw materials including timber, *abacá*, or hemp, and fibrous materials, to build and craft necessary items for galleons (Peterson 2014:210). The Indigenous contributions were so significant, that in his dissertation, Andrew Peterson (2014:1) argues, “the galleon trade was built upon the toils of Indigenous laborers and natural resources of the Philippine archipelago.” Due to the Spanish influence, Rainer Buschmann, James Tueller, and Edward Slack (2014:106) state that “Manila was an Asian city wearing a European mask.” Spain effectively controlled Manila.

With their Pacific trade route, Spain was able to transport Asian goods to markets in the Americas and Europe, leading to increased trade activities and profits internationally (Orillaneda 2014:2). Not all parties, however, were satisfied with the Pacific trade network. Seville merchants with economic interests in the Atlantic trade were concerned about the diversion of profits from the Atlantic to the Pacific. As a result, they attempted to restrict the Manila galleon trade, without much success (Gasch-Tomás 2019:114-125). Maritime archaeologist Bobby Orillaneda (2014:2) from the National Museum of the Philippines argues, “the arrival of the Europeans in Southeast Asia created new market opportunities and reoriented maritime network circuits as the region accommodated the new players.” Spain profited greatly from the Manila-Acapulco galleon trade network and influenced changes in the Pacific.

### *Spanish Colonization in the Mariana Islands*

#### Pre-missionization

To expand their trade network in the 17th century, Spain established bases in the Mariana Islands. In January 1565, Miguel Lopez de Legazpi and his fleet arrived in Umatac Bay, Guam,

claiming possession of the Marianas for Spain (Driver 1993a:2; Barratt 2003:57). Upon their arrival, Chamorro people provided provisions to the crew, like when they met Magellan in 1521 as per common Micronesian practice (Flynn et al. 2001:xv). In exchange, they took items such as cards, cloth, and iron nails (Driver 1983:199). The Spaniards record that the Chamorro people, however,

were [not] altogether honest in their barter, passing up from their canoes packets of rice mixed up with rocks or grass and sand. Coconut water was diluted, to the Spaniard's annoyance, with seawater. But the islanders were not ashamed of these deceits and thought them humorous. The Spanish officers immediately branded them as thieves and knaves (Barratt 2003:56-57).

Tempers flared due to the exchange. Eventually, peace was achieved but not without violence. Barratt (2003:56-57) records "confidence had been destroyed on both sides, and for good."

After Legazpi claimed the Marianas for Spain in 1565, only a few Spaniards stayed more than a few days during stopovers. Due to the regular violence and mistrust, they mainly kept to their galleons (Rogers 1995:20; Russell 1998:281). They regarded "the Chamorros as clever but dishonest, ready to steal or cheat them at every opportunity especially in their attempts to acquire iron objects" (Russell 1998:280-282). As a result, they often shot at the Chamorro people when it appeared that they were stealing. Periodically, they also kidnapped inhabitants, destroyed their property, and enslaved some people. Because of these dangerous encounters, Chamorro people were cautious. Instead of boarding Spanish ships, they used their canoes and established a rope pulley system to trade goods between the ships and canoes (FIGURE 2.2) (Russell 1998:283).

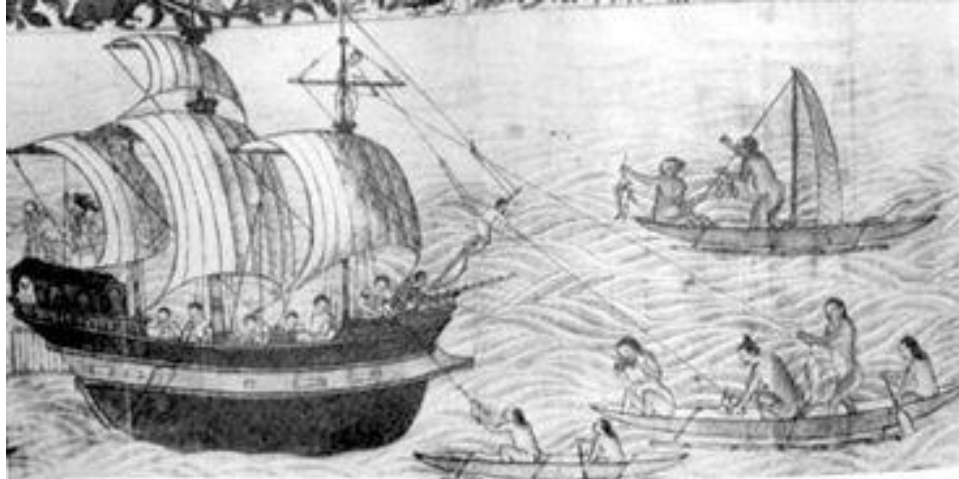


FIGURE 2.2. Chamorro and Europeans using a rope system to exchange goods with caution (Russell 1998:285-286).

During their encounters, the Chamorro people continued to provide food and provisions in exchange for iron (Russell 1998:280). *Santa Margarita* shipwreck survivor Sancho recounts,

their desire for iron was so strong that sometimes it was thrown into the sea and they would throw themselves in after it and they would catch up with it before it reached bottom and pulled it out because there was a depth of over two hundred fathoms. The Indians also used to go aboard the ships, then begin to go about looking for iron, because in it was their affection and heart as it is for someone pining after gold and silver (Lévesque 1993:176).

Chamorro people transformed iron into tools such as adzes, fishhooks, knives, “things and the other stuff they need in their fashion” (Lévesque 1993:183; Rogers 1995:41). With the Chamorro people’s help and resources, Spaniards reserved valuable cargo space for goods and personnel and replenished their provisions during their voyages (Driver 1991:73).

## Missionization

It was a hundred years later in the 1660s that Spain sent missionaries to permanently occupy and colonize the Mariana Islands (Fish 2011:454-455; Buschmann et al. 2014:98). The idea for missionization began in May 1662 with Jesuit missionary Father Diego Luís de San Vitores when *San Damián*, the galleon he was on, stopped in the Mariana Islands on route to Manila. Upon seeing the Chamorro people, San Vitores was inspired to convert them to Christianity as he viewed them as “free, untamed pagans, like innocent children, living in an unenlightened state of nature...San Vitores felt an overwhelming responsibility to save these forsaken souls” (Rogers 1995:42). With no current Jesuit mission, however, *San Damián* departed but not before picking up Esteban, an elderly illiterate Visayan Filipino who arrived in the Marianas as a *Concepción* shipwreck survivor in 1638. During his time in the Marianas, Esteban became fluent in Chamorro. Over time, San Vitores learned the Chamorro language from Esteban, eventually using it to influence people in the Mariana Islands (Ledesma 1975:5-6; Rogers 1995:42).

When *San Damián* arrived in Manila, San Vitores requested to begin a mission in the Mariana Islands by sending Jesuits to Christianize the Chamorro people and Spanish soldiers to protect them. Manila officials refused the request, so San Vitores traveled to Spain to plead with King Phillip IV and Queen Mariana, who accepted his request (Micronesian Area Research Center [MARC] 1671a). On June 24, 1665, King Phillip issued two *cédulas*, or royal edicts: one to provide San Vitores with a ship and another to allow him to establish a mission in Guam. What San Vitores requested “was not just a minor evangelical effort but a commitment by church and state to a modest but strategically significant extension of the Spanish empire into the Pacific Ocean” (Rogers 1995:43-44). With his Jesuit mission and the Manila galleons, San

Vitores facilitated the Spanish colonization in the Mariana Islands. Martin Gibbs (2016:258) writes, “the expectation was that the Indigenous populations would convert to Christianity and serve as an important structural aspect of the system promoting imperial and personal advancement of the Spanish colonists.”

On March 23, 1668, San Vitores and other missionaries departed Acapulco aboard *San Diego*, and eventually arrived three months later in Guam on June 15. After their arrival, they offloaded missionaries in Agaña, or modern day Hagåtña, which eventually formed the center of the missionization effort. Their goal was to baptize and Christianize as many Indigenous people as possible. Upon their arrival, some Chamorro people remained cautious due to years of mistrust, misunderstandings, and violence (Burney 1817[3]:280-281; Driver 1993a:2). After having been baptized previously by other Spaniards, others welcomed the missionaries. One of their supporters was Chief Quipuha who was influenced by Chief Taga, a baptized Indigenous person in Tinian. In 1638, Chiefs Quipuha and Taga assisted six Spaniards from the *Concepción* shipwreck by providing them *proas*, or ocean-going canoes, that took them to the Philippines. Chiefs Quipuha and Taga welcomed the missionaries and helped resupply *San Diego*. One supporter was a Christian Visayan Filipino named Pedro<sup>1</sup>, who was another *Concepción* shipwreck survivor. Pedro brought his two-year old half-Chamorro daughter onboard *San Diego*, who was baptized “Mariana” by the Jesuits (Ibáñez y García 1992:27-28; Rogers 1995:46; Fritz 2001:2; Schumacher 2001:318). Mariana is seen by the Jesuits as the “first divine offering” (Coomans 2000:4).

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<sup>1</sup> Two authors consider Pedro’s possible last name to be Jiménez (Schumacher 2001:318) or Ximénez (Lévesque (1995:486). On the other hand, Rogers (1995:46) argues that Pedro Calonsor or Calungsod, the one who was killed with San Vitores, was the same one who brought his daughter to be baptized upon San Vitores’ arrival. Some authors list Pedro without a last name (de la Corte 1875:17-18; Ibáñez y García 1992; García 2004). Due to limited evidence, the thesis does not list Pedro’s last name.

The missionization effort began with the *reducción*, or relocation of Chamorro people to central villages in the Mariana Islands. Before missionaries arrived, people inhabited all islands in the Marianas. The Spanish relocated them “to ease the administrative burden and to conform to the Spanish ideal of urban dwelling” (Hezel 2000:5; Buschmann et al. 2014:105).

Consequently, the *reducción* led to the start of the “collapse of traditional Chamorro settlement practices and to many aspects of Indigenous culture” (Russell 1998:306). Traditional cultural practices were transformed. Instead of having loose and temporary bonds as traditional Chamorro marriages, missionaries forced Chamorro people into permanent, life-long marriages, which was ill-received. Another drastic change was their clothing. Previously, men and women wore little to no clothing (Russell 1998:130; Lino Olopai 2019, pers. comm.). For example, Chamorro women wore small pubic coverings made of plant fibers or turtle shells called *tifi*, which did not conform to conservative Christian practices (Fritz 2001:2;97). Missionaries also changed women’s behavior, including teaching them “how to behave with their husbands, and to master a trade like sewing” (Buschmann et al. 2014:107). German officer George Fritz (2001:5) states,

Under the constant supervision of the priests, the people gave up their old customs, forgot their songs, covered their nakedness and came to mass regularly. They married for life and buried their dead in the common cemetery. The skulls and the lances made of human bone vanished. They ate meat, planted corn and did not sin openly anymore.

The missionaries drastically changed the Chamorro culture to conform to their Christian beliefs and practices.

As Jesuit missionaries spread their message and baptized people throughout the Mariana Islands in the first year, problems surfaced in the form of violent resistance as encouraged by the opposition. “As far as the missionaries were concerned, the devil's advocate in the Chamorro resistance to baptism was a Chinese named Choco” (Spoehr 2000:10). After being shipwrecked in Saipan as he was traveling from Manila to Ternate on a sampan, Choco lived in the Paa village and made knives and axes from iron hoops, possibly collected from *Concepción*, using a forge (Coomans 2000:22; Brunal-Perry et al. 2009:108). After many baptized children died, Choco spread rumors that the priests, who had been supposedly banished by the Spaniards to the Mariana Islands, mixed holy oil and water with poison, killing those they baptized. When this rumor spread, the Chamorro people hid from the missionaries, and were more defensive and violent against them (Ledesma 1975:35; Fritz 2001:2; García 2004:190-191). As a result, Spaniards attempted to baptize Choco but ultimately failed to convert him. Instead, Choco successfully encouraged others to develop a hatred for Spaniards and Christianity, which led to killing missionaries (Freycinet 2003:25; García 2004:193). The first person who died was Lorenzo<sup>2</sup>, a *Concepción* shipwreck survivor who came from India's Malabar Coast. On the island of Anatahan, Lorenzo, who acted as a catechist and interpreter for the missionaries, was baptizing Chamorro people. One child who was baptized a few days earlier, however, died. The Chamorro people, who were influenced by Choco and believed that Lorenzo murdered the child, then killed Lorenzo as he was baptizing a young girl. They pierced his body with spears, gouged out his eyes, and threw him into a ditch (Freycinet 2003:26-27; García 2004:214). Lorenzo was the “first religious martyr of the mission” but not the last (Rogers 1995:51).

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<sup>2</sup> Many publications refer to Lorenzo as Lorenzo from India's Malabar coast (de la Corte 1875; Barrett 1975:37; Ibáñez y García 1992; Lévesque 1995; Rogers 1995:50; Russell 1998:299; Coomans 2000:37; Freycinet 2000:26-27; Spoehr 2000:18; Schumacher 2001:324; Garcia 2004:214). On the other hand, Quimby (2010:85) refers to

## Spanish-Chamorro Wars

Violence only increased in coming years, leading to the next three decades to be referred to as the Spanish-Chamorro Wars (Russell 1998:300). During this time, Chamorro resistance was evident in the form of “sporadic small-scale violence and...uprisings as Spanish authorities increasingly sought to control the Chamorro by incorporating them into colonial, social, and economic structures” (Hunter-Anderson and Butler 1995:18).

Considering the first conflicts, San Vitores organized a military force which consisted of two Spanish soldiers, eight Filipino soldiers, and Captain Juan de Santa Cruz. They sailed to Tinian in November 1669, where they built fortifications and equipped themselves with blunderbuss, bow and arrows, local spears, three muskets, and a small field piece that was salvaged from *Concepción* and found in Saipan (Ledesma 1975:33; Coomans 2000:41; García 2004:219). Chamorro people launched a surprise night attack against the Spaniards but were unsuccessful. This was the first conflict in the Spanish-Chamorro Wars, and also the first time small artillery was fired on the Chamorro people, which intimidated them to come to a settlement. Peace, however, was not kept. Jesuit missionary Father Peter Coomans (2000:38) records during the first decade of the mission, “the infernal flames of hatred among the islanders had been stirred up. ...And, almost as usual, from a small spark there erupted a sudden fire. ...Therefore, in accordance with the custom of these people, the only remedy for such an evil was war.” The Spanish-Chamorro Wars were only beginning.

In June 1671, the Chamorro people, led by Chief Hurao and *makanas*, or spiritual leaders, laid siege against the missionaries in Agaña, Guam. A converted Chamorro alerted the Spaniards of an upcoming attack, which led them to transform the Agaña mission and build a

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Lorenzo as “Lorenzo de Morales, a native of India’s Malabar Coast.” Because more authors do not list his last name, the thesis only refers to him as Lorenzo from the Malabar Coast.



wooden fort with a stockade and two towers. Each of the towers had a small brass cannon: one from *Concepción* and another from the sampan that Choco was shipwrecked in. After building their fort, the Spaniards kidnapped Hurao to gain leverage (de la Corte 1875:32; Rogers 1995:52-53; García 2004:238). Yet, the Chamorro people were not deterred. On September 11, 1671, 2,000 Chamorro launched an attack on the Spanish garrison (Freycinet 2003:29). For eight days and nights, they used sling stones as their main weapons, and burnt down buildings with flaming spears. During this time, they dug siege trenches around the stockade beyond musket range and lined them with their human ancestor skulls. Without much success against the Spaniards, on September 19, Chamorro people conceded and only asked Hurao to be released, which the Spaniards granted (Rogers 1995:53; García 2004:240).

Hurao organized another attack in early October 1671, inspiring Chamorro people to drive out the Spaniards with a speech that was recorded in 1700 by French Jesuit historian Charles Le Gobien (de Morales and Le Gobien 2016). As stated in Le Gobien's translated work (de Morales and Le Gobien 2016:157-158), Hurao makes a call to action:

They have made us lose the primitive simplicity with which we lived, taking from us our liberty, which is dearer than life itself [...] They want to convince us that they bring us happiness, and many among us have been blind enough to believe them. ...Even though we do not have those murderous weapons that spread terror and death all over, we can finish them off because we greatly outnumber them. We are stronger than we think, and we can soon free ourselves of these foreigners, and regain our primitive liberty.

The assault lasted 13 days until the Spaniards launched a surprise raid, killing many Chamorro people, and sending many scattering. On October 21, 1671, the Chamorro people asked for peace. Spaniards agreed on the condition that they attend mass every Sunday, send children to mission school, and follow Christian ways. Still, people did not truly follow Christianity (Lino Olopai 2019, pers. comm.). Chamorro people kept peace only by force and necessity and still engaged in minor acts of resistance (Rogers 1995:53; Fritz 2001:3; Freycinet 2003:30).

Major rebellions were quelled in the 1680s when military commander and Governor José Quiroga launched a murderous campaign against the Chamorro people. Quiroga, seen as the “man responsible for breaking the back of Chamorro resistance,” burned villages and canoes, and killed many people (Russell 1998:304; Spoehr 2000:12; Fritz 2001:5). In February 1684, during Quiroga’s expeditions to Tinian and Saipan, Spaniards recovered guns from *Concepción* to send back to Guam (Russell 1998:307-308). While Quiroga was distracted, Chamorro people launched a failed rebellion in Agaña (Russell 1998:310; Fritz 2001:7; Barratt 2003:154).

The final major act of resistance occurred in 1695 when Quiroga launched a second expedition to Tinian but found the Chamorro people had moved to the neighboring island of Aguigan. Quiroga led an invasion into Aguigan, where many Chamorro people died. Ultimately, the Chamorro people submitted (Hezel 2000:11; Freycinet 2003:51). Afterwards, Quiroga forced Chamorro people from various islands to relocate to Rota, Saipan, and Guam. By 1699, 1,900 people had been relocated to these three islands, completing the *reducción* of the Mariana Islands (Hezel 2015:71-74). Some Chamorro people instead sought refuge further south of the Mariana Islands into the Caroline Islands (Hunter-Anderson and Butler 1995:17; Barratt 2003:155). Micronesian historian Francis X. Hezel (2000:14) records,

Stories abound of the horrors that accompanied the reduction of the northern islands: hundreds of islanders voyaging great distances to distant archipelagos to escape the Spanish yoke, mass suicides in the face of the prospect of a final separation from the bones of ancestors and homeland, mothers strangling their infants rather than raise them on another island.

Chamorro people did what they could to flee from Spanish control and reduction.

For the missionization, the Spanish used “violence and [an] overwhelming force” to colonize the islands and people (Buschmann et al. 2014:99). As a result of the Spanish-Chamorro Wars, approximately 110-120 Chamorro people were killed. On the Spanish side, 12 Jesuits, 26 assistants, and a few soldiers died. After the wars, Chamorro people continued to show minor acts of resistance but were ultimately unsuccessful (Hezel 2000:4; 2015:79).

### Mariana Islands as a Spanish Colony

With the Mariana Islands colonized, Spain continued to use the islands as a provisioning location. Chamorro people were required to provide “fresh food, water, and any kind of assistance...to the Spanish colony of the Marianas, as per the royal instructions” (Angaro and Madrid 2017:28). In exchange, galleons brought assistance in the form of the *situado*, or subsidy, and *socorro*, or relief, to provide money, iron, textiles, domestic animals and seeds, and other necessities (Driver 1993a:4).

While the Spanish-Chamorro Wars resulted in some deaths, the galleons brought diseases that decimated the Marianas population. In 1688, a ship from Mexico brought an epidemic in the form of a feverish cold, which killed many. In 1700, an unidentified epidemic killed almost all

Chamorro people (Fritz 2001:15). Due to diseases, 19 out of 20 Chamorro people died within the first century of Spanish colonization. Before missionaries, “the Marianas may have had more than 40,000 inhabitants...However, in 1787, there were only 3,348 people on Guam, 1,641 of whom were described as *indios naturales*” (TABLE 2.1) (Buschmann et al. 2014:103). In short, Spaniards caused a dramatic decrease in the Chamorro populations due to the wars and diseases they brought.

TABLE 2.1. Population in the Mariana Islands through the Spanish colonization process (Buschmann et al. 2014:105).

<b>Territory</b>	<b>Year</b>	<b>Population</b>
Mariana Islands	1668	24,000 estimated
Mariana Islands	1683	13,000 estimated
Mariana Islands	1690	9,000 estimated
Guam, Rota & Saipan	1705	5,532 census
Guam & Rota	1710	3,539 census
Guam & Rota	1722	1,936 census
Guam & Rota	1727	2,780 parish list
Guam & Rota	1758	2,720 parish list
Guam & Rota	1787	3,348 census
Guam & Rota	1828	5,349 census

Not only did Spain change the Indigenous populations and their living structures, they also transformed every aspect of the people’s lives, including tools, technologies, identity, food, religion, education, and even their names. For example, annatto, an orange-red food coloring from a tropical tree, was introduced from the Americas, and is now used in red rice in many Chamorro recipes. In another example, maize was ground in Guam using Mexican techniques (Buschmann et al. 2014:106;116). Spain also introduced cockfighting from the Philippines, which remains a common Chamorro pastime (Russell 1998:137). Today, Catholicism is still a significant aspect of the Marianas culture, which is evident in the Spanish-style churches in the islands (FIGURE 2.3) (de Frutos and de la Rosa 2012). Many influences from the Spanish

colonization can still be seen today, as the Marianas culture displays remnants of both Spanish and Indigenous cultures.



FIGURE 2.3. Spanish church *Santa Remedios* in Tanapag village, Saipan (Image by author, 2019).

While the Mariana Islands’ culture is considered ‘Hispanicized,’ the Indigenous people still preserve traditional aspects of their culture (Spoehr 2000:31). Non-profit organizations in the CNMI aim to preserve Indigenous knowledge. The Northern Marianas Humanities Council (NMHC) was formed to support research and promote awareness of the Indigenous cultures in the CNMI (Northern Marianas Humanities Council [NMHC] 2019). After Spaniards continuously destroyed Indigenous canoes during the colonial period, the organization 500 Sails was formed in Saipan to “reclaim the maritime tradition in the Marianas” by building 500 traditional *proas* (500 Sails 2019). One of the most evident symbols of the traditional Chamorro culture are *latte* stones, or house posts, that can still be seen throughout the Mariana Islands (Russell 1998:18). Examples of *latte* pillars can even be seen at a McDonald’s building in Guam

and fencing at Mount Tapochau in Saipan. In addition, another traditional practice that remains is chewing betel nuts, which are seeds from Areca palm trees. Before Spaniards, Chamorro people chewed betel nut as a narcotic, and they continue to do so today (Spoehr 2000:33). While Spaniards drastically influenced the Mariana Islands culture, people in the Marianas remain steadfast in preserving some of their traditional practices.

### *Manila Galleons*

Manila galleons facilitated the Spanish presence and colonization of the Mariana Islands (Driver 1993a:6). Each year, galleons departed Manila in June, traveling south of Luzon, through the Strait of San Bernardino and into Pacific Ocean by August or September (Buschmann et al. 2014:106). Goods from the Pacific region such as spices, silks, porcelain, cotton, gold, tea, opium, textiles, and other precious items were bought for transport to the Americas and Europe (Giráldez 2015:145-173). Monsoon winds took cargo-laden galleons north, where the Kuroshio current then took them eastward towards the west coast of modern-day United States (FIGURE 2.4) (Buschmann et al. 2014:106; Angaro and Madrid 2017:56). Galleons then traveled south along present-day California towards New Spain. When they arrived sometime between December and February, goods were loaded onto mule trains and other ships for dispersal throughout the Americas and eventually to Europe using Spain's Atlantic trade network (Fish 2011:434; Min 2014:51). Other goods were sold during the *Feria Annual de los Naos en Acapulco* or Annual Fair of the Galleons in Acapulco, where many consumers and merchants traveled from various parts of the Americas to participate (Fish 2011:434-435; Angaro and Madrid 2017:56). Historian Shirley Fish (2011:440) reports, "the merchandise from the Orient was sought after by consumers throughout the Spanish colonies. When the galleon arrived in

Acapulco, it caused wild excitement in the towns and cities.” Without the Manila galleons, there was a shortage of desired products in the region. In 1769 in Mexico, the Marqués de Croix stated, “the failure of the Philippine Galleon to arrive causes a scarcity in many things in this country” (Schurz 1939:362).

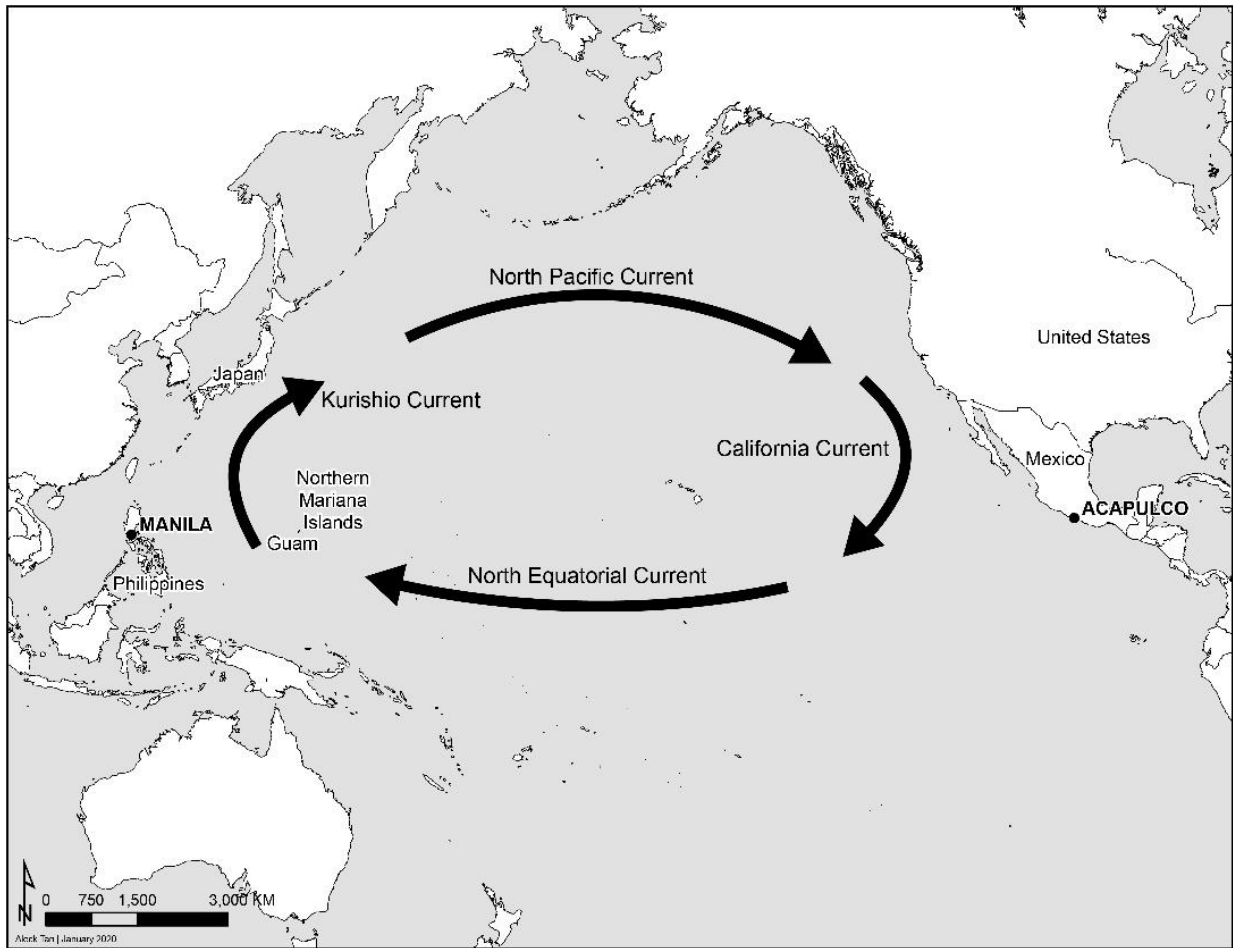


FIGURE 2.4. The Kuroshio Current took galleons north of the Philippines and then past Japan. Other currents in the Pacific helped galleons on their journey (Image by author, 2020).

After the annual trade fair, passengers and goods were loaded back onto the galleons destined for the Pacific to depart by March or April (Buschmann et al. 2014:106; Min 2014:51). Passengers for the return voyage included government officials, priests, nuns, missionaries, merchants, and military personnel (Fish 2011:451). Goods from Europe and the Americas that

were loaded onto the galleons included olives, sugar, corn, fans, soap, leather, household furnishings, cocoa, chilies, clothing, silverware, minerals, and livestock (Fish 2011:456-457). They also carried extra iron to trade with the Indigenous people in the Marianas (Quimby 2010:12). The main export for trade was silver. Silver was used to pay for the goods sold in Acapulco and for the yearly subsidy to maintain colonies (Fish 2011:467). These funds in the form of silver currency, also known as *situado* or subsidy, were used to pay for supplies, salaries, and stipends (Driver 1993a:4). Accompanying the silver was a government official called the *maestre de plata* or Master of the Silver, who safeguarded it (Schurz 1939:200; Fish 2011:454). In the 17th century, “thousands of tons of silver” were shipped (Flynn and Giráldez 2001:266). The exchange of Asian goods for silver was highly advantageous for Spain. Historians Dennis Flynn and Arturo Giráldez (2001:265) record that “a highly profitable business was organized amongst Manila, Mexico and Peru, taking advantage of cheap prices for Chinese luxury goods (from the American perspective) and cheap New World silver (from the Chinese perspective).” By 1573, nearly a decade after the establishment of the trade route, many goods and galleons regularly voyaged across the Pacific for trade (Min 2013:51).

Between 1565 and 1815, there were 400 recorded voyages between the Philippines and Mexico (Isorena 2015). The voyage was a dangerous one. Schurz (1939:15) wrote, “No other line of ships has ever endured so long. No other regular navigation has been so trying and dangerous as this, for in its two hundred and fifty years the sea claimed dozens of ships and thousands of men and many millions in treasure.” Historian Alfredo Roces (1977:926) adds, according to “seamen [sic] and historians of the age, [it was] the most difficult, the most dreadful and hazardous the world had ever known.” With such a dangerous voyage, there were inevitably some losses. During the voyages, there were approximately 59 known incidents of shipwrecks



(Isorena 2015:63). In total, only seven of these have been identified and studied (Junco 2011). Three shipwrecks, *Santa Margarita*, *Concepción*, and *Nuestra Señora del Pilar de Zaragoza y Santiago*, have been identified in the Mariana Islands, with *Concepción* and *Santa Margarita* located in the CNMI (FIGURE 1.3). *Santa Margarita* and *Concepción* provide insight and evidence of the status of early 17th century Spanish colonization in the Pacific and the Manila-Acapulco galleon trade at the time.

### *Santa Margarita*

*Santa Margarita* left the port of Cavite, Philippines on July 13, 1601. In his manuscript, Fray Juan Pobre documented the only surviving account of the shipwreck of *Santa Margarita*, as told to him in detail by a survivor named Sancho. When *Santa Margarita* departed Cavite, the ship was overloaded with goods and carried “cargoes of very rich merchandise” (Blair and Robertson 1962[13]:115-116; Corey 1971:22; Lévesque 1993). Overloading with cargo was common during this time, as Schurz (1939:184) writes, “every cubic inch of space available in the hold was crammed with merchandise...All this not only hindered movement about the ship, but the overweighting of the galleon was the cause of several disasters in the history of the line.” The ship also carried 300 people with only a few good sailors, a factor that may have contributed to its eventual demise. During its journey, *Santa Margarita* encountered many storms and hurricanes, which battered the ship and resulted in the loss of its masts, proper sails, and many provisions (Lévesque 1993:161-174). Near Japan, the ship also lost its pilot. The surviving crew attempted to rebuild the ship under the command of General Juan Martinez Guillestegui, who tried to lead *Santa Margarita* back to Manila (Russell 1998:286). During this time, provisions

diminished further, and more people died due to sickness, hunger, and thirst (Lévesque 1993:169-171).

By February 1602, *Santa Margarita* drifted and reached the Marianas. They caught sight of Saipan but traveled to Rota because other Spaniards had been there previously. By this time, about 260 of the 300 people had died (Lévesque 1993:169-171). Sancho recounts, “there were so many who were then dying of hunger and thirst, with sores in the throat, falling gums, molars and teeth, and other various illnesses” (Lévesque 1993:171). On February 9, 1602, *Santa Margarita* anchored in Rota “without a rudder and with a small rag for a sail” (FIGURE 2.5) (Lévesque 1993:172).



FIGURE 2.5. An illustration of a similar wrecking of *Santa Margarita* (IOTA Partners 2006).

Upon *Santa Margarita*'s arrival, Chamorro people sailed towards it. Sancho shares that Chamorro people provided provisions in exchange for the desired iron as per cultural custom. He adds, “one man went so far as to eat 30 coconuts” (Lévesque 1993:172). Sancho then states that Chamorro people “took over the galleon and began to take out of her [sic] whatever they found

made of iron and other things and put those things in their canoes” (Lévesque 1993:173). As usual, Non-Indigenous narratives such as Antonio de Morga and Luis de Freycinet record that the Chamorro people simply plundered *Santa Margarita* without considering the Micronesian cultural practices (Morga 1971:184-185; Freycinet 2000:23).

With a desire to return to Manila, the crew asked Chamorro people to bring them to shore so that they could rebuild the ship and obtain materials to make masts and yards. The crewmembers, however, did not survive on shore. They made threats upon landing, and therefore the Chamorro people thought they were going to seize their lands. As a result, Chamorro people killed Rodrigo de Peralta and 10 or 12 other Spaniards by burning them, “throwing stones at them, and hitting them with clubs” (Driver 1993b:25; Lévesque 1993:173). They also killed four others who struck children and committed malicious acts (Quimby 2010:19). Chamorro people then dragged some of the sick and dying to shore and killed them.

On *Santa Margarita*’s sixth day in Rota, the mooring lines parted due to rot, and the ship eventually sank (Driver 1983:200;1993b:7). According to a pamphlet written by licentiate Alonso Fernandez de Castro in 1602, “[the] loss is attributed by some to disagreement among the officers, and by others to the late sailing of the ships, and to a lack of sailors, and (what is more nearly correct) to the general loading of the vessels” (Blair and Robertson 1962[12]:49-50; Corey 1971:23-24). After the shipwreck, Chamorro people displayed its remains on the island. They carried gold and silver coins, and “wore gold chains and other things of the ship around their necks, and then hung them to the trees and in their houses, like people who had no knowledge of their value” (Blair and Robertson 1962[15]:237-238; Morga 1971:184-185; Freycinet 2000:23).

Chamorro people took remaining survivors and distributed them throughout several villages, “where they maintained them and gave them better treatment” (Blair and Robertson 1962[15]:237-238; Morga 1971:184-185; Driver 1983:200; Lévesque 1993:173). Pobre notes that caring for shipwreck survivors “had a prestige value” for Chamorro people since “they can expect to receive a substantial ransom in iron for one of them” (Driver 1983:213; Quimby 2010:17). By distributing them throughout villages, “the burden of housing, food and care for these 'guests' [is spread] and ensured that repatriation rewards would be shared among the leading kin-groups” (Quimby 2010:17-18).

Eventually, the Spanish rescued survivors upon their consequent visits to the islands (Lévesque 1993; McKinnon 2017). In April 1602, *Santo Tomas* arrived in Rota under the command of General Don Antonio de Ribera Maldonado. Chamorro people brought five Spaniards to *Santo Tomas*, one of which the Spaniards initially thought was an Englishman. Among the five survivors was a Biscayan, or Filipino, named Juanes de Calça Corta. Chamorro people informed Maldonado that there were 26 survivors in other areas, and that they would bring them if they waited. Due to English threat, Maldonado refused to wait and instead promised that there would be other ships to rescue them. Before *Santo Tomas* departed, however, Father Juan Pobre and Juan Pedro de Talavera slipped away into the Chamorro people’s canoes and were taken to Guam by Chamorro people. There, they learned more about the *Santa Margarita* shipwreck and the Chamorro interactions with the Spaniards (Blair and Robertson 1962[13]:119; 1962[15]:238-239; Morga 1971:184-185; Driver 1993b:9). *Santo Tomas* eventually wrecked in Catamban Bay in Catanduanes. All passengers and crew survived and most of the cargo was saved and then transferred to Manila (Blair and Robertson 1962[27]:190-191).

During their time in the Mariana Islands, Pobre reports that there were three Spanish *Santa Margarita* shipwreck survivors living in the islands: Sosa in Saipan, Diego de Llerana in Tinian and Sancho in Guam. While there is limited to no information on Sosa and Diego de Llerana, Sancho was eventually killed in August 1602 (Lévesque 1993:161). In October, the Manila galleon *Jesus María* arrived in Rota, taking Pobre and remaining *Santa Margarita* shipwreck survivors onboard (Lévesque 1993:209). They left, however, before picking up de Talavera and another Franciscan who was searching for Pobre on the island. The two friars and a soldier from the *Santa Margarita* shipwreck were eventually picked up on May 19, 1603 by another galleon (MARC 1603). Five Spaniards and a small group of black slaves refused to leave (Corey 1971:23-24; Driver 1993b:1;12; Rogers 1995:19; Russell 1998:286).

### Concepción

*Santa Margarita* was not the only shipwreck in the Mariana Islands. Almost 40 years later, on August 10, 1638, *Concepción* set sail from the Philippines for Acapulco (MARC 1678). At the time, *Concepción* was one of the largest ships between 140 and 160 feet in length, about 50 feet in beam, about 20 feet in depth, and a displacement of 2,000 tons (FIGURE 2.6). It had room for about 1,200 chests for trade goods (Mathers et al. 1990:51; Rogers 1995:19; Fish 2011:3). It was also considered to be “the richest one that has ever been seen on that route and owned by citizens of this land” (Blair and Robertson 1962[35]:44). The galleon was constructed with Philippine hardwoods, and as a result, the “hull was almost indestructible. Ship worms and cannon balls from enemy ships could not penetrate her [sic] sides” (Fish 2011:3). Although it had an indestructible hull, the ship was not impervious to the storms to come.



FIGURE 2.6. Artist Roger Morris' rendition of *Concepción* leaving Cavite harbor (Mathers et al. 1990:52).

*Concepción*'s shipwreck story starts with Sebastián Hurtado de Corcuera y Mendoza. Corcuera played a major role in *Concepción*'s final voyage and the Manila-Acapulco galleon trade network overall. From 1635 to 1644, Corcuera was the Philippine Governor, and manipulated the trade network to his advantage. Many of his enemies believed that Corcuera engaged in and profited greatly from illicit trade in the Pacific trade network. At the time, it was common for governors and officials to "pursue their own personal profit" during the galleon trade (Fritz 2001:9). Corcuera was accused of draining public coffers and private money for his own profits but denied the accusation (Blair and Robertson 1962[29]:53-56). Despite denying accusations of illicit trade, the Governor amassed a great amount of wealth. At the port of Manila Bay, merchants believed that there was gold belonging to the Governor. In Acapulco, the Governor had a cache of property, which was only revealed when it was destroyed by fire. Some of the property included chinaware, spices, and brass estimated at several thousand ducats. In

1644, at the end of his term, Corcuera's estate in Manila was estimated to be more than three million pesos (Mathers et al. 1990:50). Corcuera may have built his wealth by manipulating the Manila-Acapulco galleon trade network.

Many people took advantage of the early days of the galleon trade to transport illicit cargo (Fritz 2001:9). Like Corcuera, former deputy governor of Manila Antonio de Morga was accused, but not prosecuted, of illicit trade after he was found smuggling silk from Manila to Ecuador for his son to establish a silk shop in Lima (Fish 2011:49). In 1602, Gaspar de Zúñiga Acevedo y Fonseca, the Count of Monterrey, writes that contraband was brought to the Philippines in large amounts. To hide contraband, it was common for traders to miscalculate the real values of cargo, which today makes it difficult to learn the extent of illicit trade that existed (Schurz 1939:186). de Zúñiga documents, "it is almost impossible to put a stop to" contraband but regardless, he ordered numerous investigations to track and prevent contraband during this time (Blair and Robertson 1962[12]:67-68). Schurz (1939:190) documents, "the most lucrative period was the early decades of the line, before attempts at restriction had unsettled the steady course of trade."

To transport his possible illicit cargo, Corcuera may have exploited *Concepción*. On August 10, 1638, the flagship *Concepción* and its consort *San Ambrosio* completed preparations at the Cavite shipyard in the Philippines, so they left Philippines for Acapulco (Fish 2011:1). *San Ambrosio* traveled south while *Concepción* traveled north, an act that defied protocol of convoy ships traveling within sight of one another (Angaro and Madrid 2017:28). Fish reports that the ship was carrying 400 individuals, half of which was comprised of officers and crew, and the other half of passengers (Fish 2011:3). According to Mathers et al. (1990:52), there were only five reported passengers: a chaplain, two priests, a husband and wife, and an unknown person.

Rations for *Concepción* included wheat flour, dried beans, sugar, 566 live chickens, fresh pork, 159 heads of cattle, drugs, tobacco, and at least 1,900 earthenware and storage jars (Mathers et al. 1990:52).

In loading *Concepción*, Corcuera broke the laws that regulated its cargo. Corcuera and merchants did not register the cargo to spite customs agent and royal inspector Don Pedro de Quiroga y Moya who had been collecting taxes on unregistered merchandise. Therefore, there is no complete list of the cargo of *Concepción* (Ruiz Gutiérrez 2016:191). Unregistered cargo was deemed as personal property, which did not have export duties. According to a historical report, most goods onboard *Concepción* belonged to Corcuera and his close friends in Manila, with some belonging to merchants (Mathers et al. 1990:52; Angaro and Madrid 2017:29). In a 1638 letter to the King Phillip IV, treasurer at Manila Baltasar Ruiz de Escalona writes,

more than one hundred and fifty thousand pesos have been spent on these ships [in 1638]...Your Majesty will never be reimbursed for that sum, for, as no cargo goes in the ships there can be no duties collected; and it is from these duties that the funds for these expenses must be obtained (Blair and Robertson 1962[29]:59).

Corcuera was using Spain's money and galleons for his personal profit. To add to the list of infractions, merchants declared the value of the cargo at 800,000 pesos while royal inspector Pedro Quiroga y Moga valued the cargo at 4 million pesos (Angaro and Madrid 2017:29). The cargo carried twice the value than other similar-sized galleons (Fish 2011:4). It was reported that the galleon "contained the greatest wealth of the [Philippine] islands" (Blair and Robertson 1962[29]:168-171). According to Fish (2011:3), the "decks and hold were overflowing with



cargo. Every available nook and cranny on the ship was filled with” goods. Some goods included gold ewer, plates, gold filigree jewelry, and 1,500 cakes of beeswax (Mathers et al. 1990:52; Russell 1998:277). Claiming the large cargo as personal property and downplaying the real value of the cargo meant Corcuera avoided export duties, and in turn, saved money. Escalona argues, “it seems as if [the King] had sent the governor [Corcuera] to these islands to ruin and destroy your royal estate, rather than to increase and preserve it” (Blair and Robertson 1962[29]:59; Corey 1971:32).

To carry his valuable, possibly illegal, goods across the Pacific, Corcuera assigned a trusted relative, his 22-year-old or 24-year-old nephew Juan Francisco de Corcuera, as the general of *Concepción*. It was common practice then for generals in charge of galleon convoys to be “mostly relatives and servants...mere youths without experience in naval affairs” (Schurz 1939:200; Driver 1993a:3). Despite being “young and inexperienced in military and naval affairs,” Juan Francisco led *Concepción* out of the Philippines (Mathers et al. 1990:53; Mateo 2007:23-29). After *Concepción*’s departure from Manila, problems surfaced. Juan Francisco could not properly command and instruct the crew, which led to the officers and crewmembers quarrelling with one another. With the crew in mutiny, the ship was not properly controlled. “Junior officers rioted on board the *Concepción* during the storm that dismasted the ship, leaving it without control” (Angaro and Madrid 2017:28). With masts gone, the ship floated closer towards the Mariana Islands without direction (Rogers 1995:19-20; Russell 1998:287).

On September 20, 1638, during severe weather, *Concepción* wrecked off the southern coast of modern-day Saipan. Upon *Concepción*’s wreck, Chamorro people took gold jewelry and iron objects (FIGURE 2.7). The remaining cargo scattered throughout the reef into crevices and depressions (Mathers et al. 1990:136; Rogers 1995:19-20). The cargo lost included the Governor

Corcuera's "great quantity of riches, which his greed (which was great) had amassed during his term" (Blair and Robertson 1962[25]:192). Since the cargo was valued at 4 million pesos, double the value carried by similar-sized galleons, *Concepción's* loss was exceptional (Fish 2011:4). While severe weather was one factor of the shipwreck, Juan Francisco's inexperience and inability to command the ship was believed to be the principal cause of the shipwreck (Mathers et al. 1990:53; Mateo 2007:29). Meanwhile, *San Ambrosio* arrived successfully in Acapulco on January 24, 1639 (Angaro and Madrid 2017:29).



FIGURE 2.7. Artist Roger Morris' rendition of the wrecking of *Concepción*. The painting is currently located in the NMI Museum of History and Culture (Mathers et al. 1990:54).

Most of *Concepción's* crew and passengers died. About 40 people escaped and survived the shipwreck, 28 of them Spanish. Many survivors were killed with lance-thrusts or drowned by Chamorro people (Lévesque 1995:35 Spoehr 2000:7; Fish 2011:4). The shipwreck also released cats and dogs for the first time in the Mariana Islands (García 2004:166). After the wreck, six Spaniards and two "Indians (probably Chamorros)," traveled from island to island until they

reached Guam, where they received help from Chamorro Chiefs Quipuha and Taga. The chiefs welcomed the survivors because they were previously treated well by other Spaniards. Thus, they provided them with provisions, two small *proas* built in Tinian, and two Chamorro people to guide them (Schurz 1939:259; Corey 1971:33; Lévesque 1995:37; Quimby 2010:19). Led by a surviving Spaniard named Juan de Montaya, these survivors then traveled to the Manila, where “they arrived almost dead with hunger, thirst, and lack of sleep” on July 25, 1639 (Blair and Robertson 1962[29]:168-171; Rogers 1995:19-20). They shared news of *Concepción*’s shipwreck and instructed to send a ship carrying iron to exchange for remaining survivors, which comprised of 22 Spaniards, “some Indians, and negroes” (Blair and Robertson 1962[29]:168-171). In 1640, another group led by Spaniard boatswain Francisco Ramos and pilot Esteban Ramos, traveled to the Philippines in a modified canoe. Esteban later became a galleon captain and supported the missionization of the Marianas. Remaining survivors were distributed amongst the Chamorro people but were eventually picked up over the next two decades. In 1664, four Filipino crewmen were picked up by Esteban Ramos. Some Filipino and Spaniard survivors chose to remain in the Mariana Islands and married Chamorro people (Lévesque 1995:257-259; Rogers 1995:19-20; Freycinet 2000: 23-24; Schumacher 2001:310; Quimby 2010:19-20).

When San Vitores and the missionaries arrived in Guam in the 1660s, they encountered *Concepción* survivors. In 1662, they picked up four Filipinos including Esteban, an old illiterate Visayan Filipino, who learned Chamorro and taught San Vitores the language (MARC 1665; Ledesma 1975:5-6; Rogers 1995:42). In 1664, two survivors were picked up and worked as interpreters for missionaries. When San Vitores returned to the Marianas in 1668, three survivors, Pedro, former slave Lorenzo from Malabar, and Visayan Francisco Maunahun<sup>3</sup>, helped

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<sup>3</sup> Spoehr (2000:18) lists him as Francisco Maunahun, while Schumacher (2001:324) lists him as Francisco de Maunahun.

the Jesuit mission as interpreters and informants. In 1669, another Filipino survivor joined the missionary (García 2004; Quimby 2010:20; Schumacher 2001:315-319). One survivor a “Macazar, [or] a ‘Christian indio’ from either the Philippines or Mexico,” on the other hand, fought alongside Chamorro people against the missionization until he was faced with death and was forced to convert (Spoehr 2000:16). In 1669, Lorenzo was killed by the Chamorro people in Anatahan as the first martyr of the missionization effort. On April 2, 1672, Esteban ran away from the missionaries in Guam, prompting San Vitores and Pedro Calungsod<sup>4</sup> to search for him. Instead of finding Esteban, San Vitores and Calungsod found and baptized chief Mapatang’s daughter without permission, which eventually led to Chiefs Mapatang and Hurao to kill them both (Rogers 1995:33;51). Eventually, Calungsod was beatified on March 5, 2000 (Schumacher 2001:292). On June 5, 1672, de Maunahun was killed by another Filipino in Guam (Spoehr 2000:18).

Despite losing many people, valued cargo, and galleons such as *Concepción* and *Santa Margarita*, the Spanish empire benefitted greatly from their access to and engagement in the trans-Pacific trade network during the 17th century, in combination with their established and successful Atlantic trade network (Gasch-Tomás 2019:74). Historian M.N. Pearson (2001:134) argues that by the second decade, “Spanish prosperity in the Philippines was probably at its greatest.” Historians Dennis Flynn and Arturo Giráldez (2001:265) adds, “Spain was arguably the most powerful force in Europe in the beginning of the seventeenth century.” Spain emerged as a powerhouse in the global trade at the time, becoming “owner of the world’s richest sources of gold and silver” (Schurz 1939:395).

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<sup>4</sup> Some list Pedro’s last name as Calonsor, Casor or Calangsor (Rogers 1995:46;55; Quimby 2017:85). In his article, Schumacher lists Pedro’s varied recorded surnames as “Calonsor, Calangsor, Calongsor, etc., all of which are equivalent...to the common contemporary Visayan name Calungsod” (Schumacher 2001:290). Schumacher acknowledges the common Visayan name and states Pedro’s last name as Calungsod.

### *Decline of the Manila-Acapulco Galleon Trade*

Spain's control in global trade and in the Manila-Acapulco galleon trade network eventually dissolved. Competition, restricted trade, and the loss of their colonies contributed to the decline of the Manila-Acapulco galleon trade. For these reasons, Spain waned in power in the 18th and early 19th centuries.

For three centuries, the galleon trade persisted against competing powers and trade. Other powers such as the Netherlands and England recognized the profitable markets in the Asian trade network and eventually started to claim a piece of it for themselves, diverging profits from Spain (Giráldez 2015). The Dutch attempted to create a monopoly in the trade by blockade. In other words, the Dutch attacked Spain's lifeblood: their trade economy (Min 2013:52; Giráldez 2015:92-99). They seized and raided Manila galleons and Chinese junks, attacked shipyards, and imposed embargos in Spanish ports, all in an attempt to hinder and eliminate Spanish trade (Min 2013:52). In addition, the Dutch supported and encouraged the *Moro*, or Muslims, in southern Philippines, to attack the Spanish in the Philippines. Together, the Dutch and the *Moro* constantly attacked galleons and settlements, which resulted in a depletion of Spanish resources and manpower to deal with those attacks (Giráldez 2015:99-102). The English also invaded the Philippines between 1762 and 1764, which greatly disrupted the Philippine economy and galleon trade (Fish 2011:466-467). They captured galleons, confiscated cargo, and attacked and looted Manila (Schurz 1939; Fish 2011:466). Moreover, a new trade passage rerouted profits to other powers. By 1763, the Cape of Good Hope route was established, allowing other regions to profit from the Pacific trade network (Guzman-Rivas 1960:12). While Spain succeeded for three centuries, the power struggle for the Pacific eventually depleted the resources and hindered the development and profits of the Spanish trading empire.

Another factor of Spain's demise was their monopolization and reliance on their Manila-Acapulco trade. In 1637, Don Juan Grau y Monfalcon cautions that the galleon trade brought in little profits. Grau y Monfalcon writes in *Memorial Informatorio al Rey*, or an Informatory Memorial to the King:

considering the expenses, the risks, the hardships, the shipwrecks, and the losses of that voyage...so remote, so long, so troublesome, and so full of dangers, in which many ships have been wrecked, and the enemy have pillaged others, and not a few have put back in distress, and have suffered other disasters, as will be related—the profits become very small and the gains so limited (Blair and Robertson 1962[27]:190-191).

Even with small profits, Spain heavily restricted trade between Manila and Acapulco, creating tensions and limiting other merchants from regions such as Peru and Seville (Gasch-Tomás 2019:121;200-201). They depended too much on Manila galleons and the Chinese silk trade that they did not develop other businesses to make money (Pearson 2001:136). In 1609, Antonio de Morga writes,

the Spaniards do not apply themselves to, or engage in, any other industry. Consequently, there is no husbandry or field labor worthy of consideration. They do not engage in the many other industries to which they could turn with great profit, if the Chinese trade should fail them (Schurz 1939:39; Fish 2011:48).

An economist with the Spanish government in Manila, Leandro de Viana suggested that Spain take advantage of agricultural and natural resources in the Philippines to expand and invest in other sources of profit, but these suggestions were not pursued (Fish 2011:468). Spain remained comfortable and relied heavily on the fruits of the galleons. Schurz (1939:39) adds, “the high returns from the galleon trade and the facilities which it afforded for a life of luxury discouraged the Spaniards from embarking in other occupations that might have given them more security, if less glamour.” Ultimately, the desire to obtain main profits only from the not-so-profitable Manila galleons led to Spain’s downfall as Spain did not have other sources of income when their Pacific trade dwindled.

Another blow to the Spanish trading empire was the establishment of the Royal Philippine Company in 1785. By royal decree from King Charles III, the company was established to encourage trade between the Americas, Spain, and the Philippines (Schurz 1939:57; Fish 2011:476; Giráldez 2015:188-190). While the intentions were to increase trade and to regain control of the monopoly, the plan backfired. The company limited trade with other regions to prevent competition, which led to a decline in trade (Schurz 1939:60; Giráldez 2015:189). Chinese merchants, who provided valuable commodities of porcelain and silk, had limited access to the trade network and took their business elsewhere (Fish 2011:487). After the company’s foundation, only a few galleons traveled to Acapulco but were unable to sell their cargo for much profit due to a variety of accumulating factors, such as shipwreck, contraband, market collapse, conflict, and competing trade powers (Giráldez 2015:189). In 1804, three galleons *Rey Carlos*, *Montañés*, and *Casualidad* “were anchored at Acapulco, their holds filled with cargo and unable to find customers” (Schurz 1939:60; Flynn et al. 2001:xxxvii).

The final tipping point to Spain's downfall was losing colonies in the Pacific and the Americas. Spain only utilized the Marianas as a military outpost and a stopover for galleons (Hezel 2000:49-50). Luís de Ibáñez y García (1992:xix) documents in 1886,

The Marianas were never likely to be a source of wealth for Spain: there were no precious metals, few spices, and the land was not particularly fertile. Isolation and sparse population were a serious handicap. The islands were periodically swept by destructive typhoons and, not infrequently, deadly epidemics. Even if surpluses could be grown, hordes of rats and insects quickly destroyed the foodstuffs. Tropical mildew, in the days before canning and freezing, likewise destroyed stored foods.

Spain's colonization was fraught with problems and failed to create a sustainable colony (Hezel 2000:49-50). By the early 19th century, other colonies started fighting against Spanish colonization and oppression. In Peru, Indigenous people launched rebellions for independence. With the help of José de San Martín, Peruvians liberated Lima from Spanish control in 1821. In Mexico, radical priest Miguel Hidalgo led a revolt against the Spanish, which eventually resulted in Mexican independence in 1821 (Bushnell 1994:15-18). When Spain lost grip of their monopoly and colonies, they lost control of their trading empire.

By 1815, Spain's Pacific trade network collapsed. With decreasing profits, Ferdinand VII issued the Royal Decree of April 13, 1815, which ended the Manila-Acapulco galleon trade (Fish 2011:482). The last galleon *Magallanes* traveled from Manila to Acapulco in 1811 and eventually returned in Manila in 1815 (Steele 1925:84; Legarda 2001:356).



## *Conclusion*

According to historian José L Gasch-Tomás (2019:198), “the opening of the Manila Galleon route between Spanish America and Southeast Asia propelled a new line of globalization that contributed to the interaction between the Atlantic World and Asia.” For over two and a half centuries, Manila-Acapulco galleon trade network brought prosperity and wealth to Spain while engaging Europe, the Americas, and Asia in a global trade. Without Indigenous contributions and sacrifices from the Philippines and the Mariana Islands, however, the galleon trade would not have prospered. Despite success in the 16th and 17th centuries, Spain’s trading empire collapsed in the early 19th century due to the loss of their monopoly and control in the Pacific.

## Chapter 3 Theoretical Framework

### *Introduction*

This chapter explores three theoretical frameworks: site formation processes (SFP) studies, actor-network theory (ANT), and shared heritage. Together, these frameworks help to identify and analyze cultural impacts on *Santa Margarita* and *Concepción*. The first section focuses on the development of SFP studies as outlined by Keith Muckelroy (1976;1978), David Stewart (1999), and Martin Gibbs (2006). SFP explores the cultural and natural processes that affect shipwreck sites, and in turn, the archaeological record. Based on SFP, this thesis explores the cultural processes that impacted and still impact *Santa Margarita* and *Concepción*. The second theoretical framework, ANT, reveals the interconnected relationships of human and non-human actors involved in shaping a shipwreck site. The thesis uses ANT to systematically and objectively identify any human and non-human cultural impacts on *Santa Margarita* and *Concepción*. The third and last section explores the concept of shared heritage to examine and promote under-represented and Indigenous voices in history. Exploring shared heritage helps to identify stakeholders related to cultural impacts on *Santa Margarita* and *Concepción*.

### *Site Formation Processes*

In the 1970s, Michael Schiffer introduced and developed the idea of SFP in archaeology as the idea that cultural and natural factors affected the formation processes of a site, and consequently, the archaeological record (Schiffer 1972:156). While SFP was commonly applied to terrestrial archaeology, Muckelroy first applied the study in maritime archaeology when examining the *Kennermerland* shipwreck site (Muckelroy 1976:281). Muckelroy concluded that cultural and environmental processes affected shipwreck sites and how the artifacts were

distributed onsite. He developed a flow chart which “represents the processes through which that organized assemblage of artefacts comprising the ship and its contents has passed to produce the collection of items which recent excavations have uncovered on the sea-floor” (FIGURE 3.1) (Muckelroy 1976:281; 1978:158). Over time, shipwreck sites transform due to the various cultural and environmental factors at play (Muckelroy 1978:159).

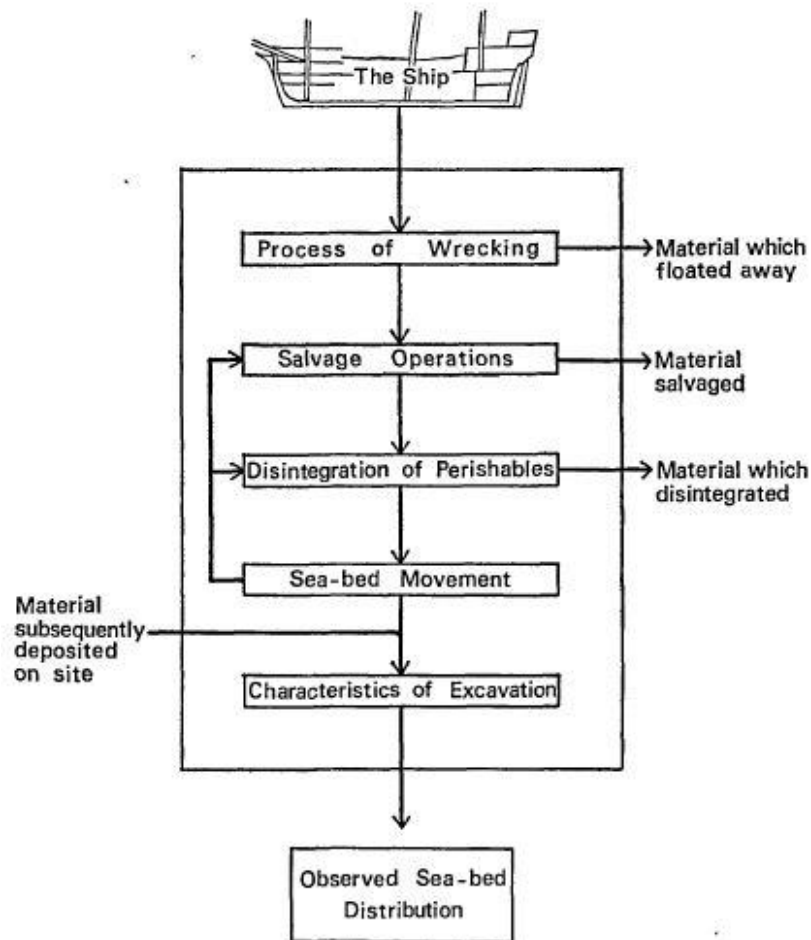


FIGURE 3.1. Muckelroy’s SFP flow chart (Muckelroy 1978:282).

Muckelroy further developed the concept of SFP studies in his 1978 book *Maritime Archaeology* by defining two major elements that affect site formation: extracting filters and scrambling devices (Muckelroy 1978:159). Extracting filters refer to elements that affect the loss of material from a shipwreck, which include the process of wrecking, salvage operations, or the

disintegration of perishables. As an extracting filter, the process of wrecking removes materials from a site. For example, organic remains may float away from a site, but metal objects may sink to the bottom. Archaeological work, or salvage operations, be it from local inhabitants, sport divers, or treasure salvors, may also remove materials on site. Finally, materials may also disintegrate and disappear, possibly due to corrosion or to lack of preservation (Muckelroy 1978:159-166). The other major element impacting sites are scrambling devices, which are factors that rearrange elements of a vessel, including sea-bed movement and the process of wrecking. As a scrambling device, the process of wrecking refers to the rearrangement of materials during wrecking. The process begins from the moment of impact and continues over time until the materials become part of the seascape. After this point, they are assimilated into the seabed. Artifacts are impacted by seabed movements due to environmental impacts of sediments, storm winds, tidal currents, shoreline erosion, water movement, or marine organisms (Muckelroy 1978:175-182). According to Muckelroy (1976;1978), analyzing processes such as extracting filters and scrambling devices allows archaeologists to better understand a shipwreck site as a whole.

Muckelroy recognized the significance of impacts on a shipwreck site, but he emphasized environmental impacts over cultural ones. For example, he thoroughly discussed at least six causes of seabed movements. In contrast, he only discussed salvage operations as cultural impacts on a site without considering other possible cultural impacts (Muckelroy 1978). In his 1999 article, David Stewart provided an overview of SFP of underwater sites with thorough discussions on both cultural and natural processes (Stewart 1999:565). Stewart outlines cultural processes on a site which include: reclamation processes (i.e. salvage), construction, fishing, dredging, or disposal of refuse. Sites can be altered by salvors, disturbed by modern fishing

practices, destroyed by dredging or construction, or contaminated with local refuse. In terms of natural processes, environmental impacts may include: bioturbation, marine borers, waves, tides, currents, gravity, and colluvial action (Stewart 1999:584). In his article, Stewart provides a more exhaustive list to categorize cultural and environmental processes (FIGURE 3.2).

Formation Process	Possible Effects
<b>Cultural</b>	
Reclamation	Loss of movable objects; trampling damage; movement of artifacts
Construction	Destruction of site
Fishing	Dragging of artifacts; addition of fishing implements
Dredging	Destruction of sites in harbors or shipping channels
Refuse and loss	Addition of material to existing sites
<b>Environmental</b>	
Marine borers	Destruction of wood
Bioturbation	Some damage, especially to organic materials; stratigraphic displacement
Waves, tides, and currents	Heavy wear to artifacts due to water abrasion; loss of spatial patterning
Colluvial action	Downward movement of artifacts

FIGURE 3.2. Cultural and environmental formation processes and their effects (Stewart 1999:584).

In 2006, Martin Gibbs (2006) further developed the theory of SFP by building upon Muckelroy and Stewart’s ideas. In his article, Gibbs (2006:4),

propose[d] a structure for understanding the behaviors involved in shipwreck events based on the models used in disaster studies and emphasizing the potential physical correlations and signatures of each stage. It then examine[d] the nature of different forms

and processes behind cultural removal of material from shipwrecks, including the different contexts of on-site and off-site ‘salvage’.

In short, Gibbs explored cultural site formation studies in the context of disaster studies. To do so, five stages or periods of cultural impacts were identified based on disaster studies: pre-impact, impact, recoil, rescue, and post-trauma. In each stage, there are possible behavioral or cultural impacts that contribute to a shipwreck. For example, in the impact stage, crisis salvage may be undertaken. In the recoil stage, survivors may attempt to salvage remains. After the wrecking event, there may be opportunistic or systematic salvage. To illustrate his ideas, Gibbs enhanced Muckelroy’s flow chart of SFP (FIGURE 3.3).

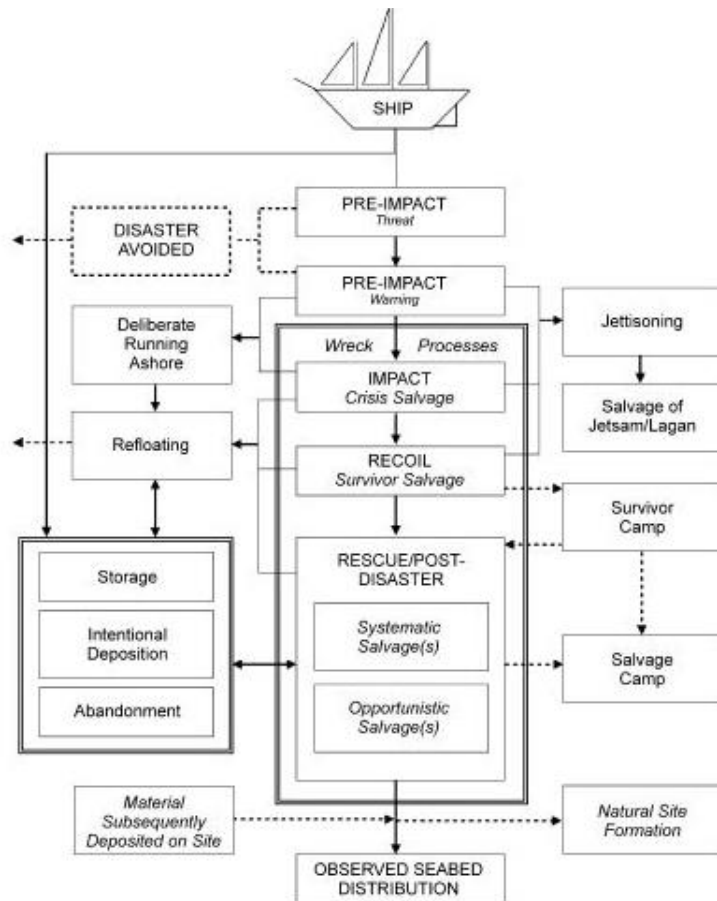


FIGURE 3.3. Gibbs’ extension of Muckelroy’s SFP flow chart (Gibbs 2006:16).

Compared to others, Gibbs provided a more comprehensive view of cultural SFP. For example, previously, Muckelroy only identified impacts that took place starting from the point of impact. Gibbs explored cultural impacts even before this point by considering pre-voyage factors that may have contributed to a shipwreck (Gibbs 2006:4). In addition, he extends the discussion on salvage by describing different types (Gibbs 2006).

Ultimately, with the help of disaster studies, Gibbs was able to “provide an extended structure for understanding cultural actions before, during and after the wreck event” (Gibbs 2006:18). More importantly, Gibbs provides a way to analyze shipwreck events in terms of salvage activities to better understand their cultural impacts on shipwrecks (Gibbs 2006:18).

Using Gibbs (2006), Stewarts (1999), and Muckelroy’s (1978) theories as frameworks to analyze cultural impacts on shipwreck sites, the thesis identifies and analyzes the post-wrecking cultural impacts on *Santa Margarita* and *Concepción*. Furthermore, it allows for a determination of what archaeological information can be obtained about the shipwrecks after salvage activities were undertaken.

### Defining cultural impacts by groups

Stewart (1999) and Gibbs (2006) identified that cultural impacts may be brought on by various groups including archaeologists, Indigenous peoples, sport divers, beachcombers, or professional salvage companies. In explaining the differences between groups, Stewart (1999:575) acknowledges that cultural impacts by professionals may be more harmful than recreation divers’ impacts on sites but does not comprehensively discuss these groups.

To extend Stewart’s discussion on professional work on sites, Gibbs identifies two main types of salvors. After identifying that previous definitions of salvage were problematic since

time was the factor that differentiated salvors, Gibbs offers two categories that are independent of time: opportunistic and systematic (Gibbs 2006:14). Opportunistic salvage refers to non-systematic removal of materials soon after the shipwreck event. Opportunistic work “can be characterized as low-intensity and short duration, focusing on accessible fixtures, fittings, and minor structural elements but not major structural items” (Gibbs 2006:14). This type of cultural impact can occur sporadically or repeatedly. Opportunistic groups can include contemporary salvors such as Indigenous peoples who collect items immediately after the wreck, or beachcombers or sport divers who collect artifacts. On the other hand, systematic salvage is undertaken by professional salvors who “approach a ship with time, workforce and technology to undertake an intensive and sustained effort to remove all or some of the cargo, fittings, minor and major structural elements” (Gibbs 2006:14). Systematic salvors can include Spanish salvors looking to reclaim lost cargo, and treasure or commercial salvors such as private salvage companies.

Archaeologists, on the other hand, represent another group that contributes cultural impacts on sites but do not conduct salvage work. While Gibbs (2006:14) groups archaeologists with systematic salvors, archaeologists employ scientific methods with academic goals which differentiates them from salvors. Archaeologists and treasure salvors are two contrasting groups that have opposing goals and ethics regarding cultural resources. Each group’s goals and ethics, or lack of, determine how they treat the remains or sites. For archaeologists, underwater cultural heritage is of cultural, historical and archaeological value, so they properly manage it (Vadi 2016). On the other hand, treasure salvors see commercial value in underwater cultural heritage, so they will try to obtain and sell valuable artifacts as they see fit, even if it means destroying sites.



Archaeologists aim to learn more about history and cultures from underwater cultural heritage and follow ethical guidelines to conduct scientific work (Vadi 2016; Society of Historical Archaeology [SHA] 2017). There are numerous archaeological associations that have similar ethical guidelines, including SHA, RPA, and ACUA, to name a few (Leshikar-Denton 2010:90-92). In one example, according to the SHA Ethics Principles, archaeologists must support preservation and management, disseminate research, collect reliable and thorough information, prevent assigning commercial value to artifacts, prevent engaging in the sale of artifacts, and promote education about archaeology. They must adhere to these guidelines as part of their work (SHA 2017). Archaeologists Ian Mather and Gordon Watts (2002:594-595) argue that archaeologists,

feel an ethical responsibility to conserve and preserve the archaeological resource base, to argue publicly for the investigation of sites using acceptable archaeological methods, and to disturb sites only when armed with appropriate research questions, equipment, personnel, and funding.

The three professional organizations, SHA, RPA, and ACUA, guide archaeologists with their ethical principles and standards to conduct research on underwater cultural heritage systematically and scientifically (SHA 2017; Advisory Council on Underwater Archaeology [ACUA] 2018; Register of Professional Archaeologist [RPA] 2018).

While archaeologists aim to learn more about cultures, treasure hunters have a different agenda. Commercial salvage companies and treasure salvors work in conjunction with private investors in order to gain more money from the lucrative treasure hunting business (Zamora

2008:20). Researcher Stefan Gruber from Kyoto University argues, “the looting of heritage sites is part of a well-structured and organized business focused primarily on the generation of profit” (Gruber 2013:346). Treasure hunters, private salvage companies, and looters are all part of the business (Zamora 2008:20). Funded by private entities, salvage companies do not have to conduct excavations properly, conserve artifacts or publish results in compliance with government or professional archaeological standards to obtain money (Vadi 2016:869). Additionally, without professional standards set by archaeology associations or governments, treasure hunters do not require proper training and therefore lack the knowledge to recover artifacts without damage, often leading to the destruction of remains (Gruber 2013:347). Mather and Watts (2002:599) share, “Parties interested in salvaging a vessel or its cargo are sometimes unconcerned with the vessel’s historic value and the archaeological record that a shipwreck preserves.” When artifacts and sites are destroyed or sold, the information and access to them is lost forever. With funds from private investors, treasure hunters operate and exploit governments that do not have the means to fund their own archaeological research (Barbash-Riley 2015:204-205). They simply search for the commercially valuable remains that will bring them profits, regardless of ethics, methods, and other remains valuable to countries and archaeologists (Zamora 2008:20). While treasure hunters may advertise that they are more scientific now in order to justify their actions, there is a lack of research conducted up to archaeological standards (Zamora 2008:24). Because of their destructive nature, treasure hunters threaten the very same underwater cultural heritage that archaeologists aim to protect.

In conclusion, Gibbs states, “shipwreck salvage in whole or part represented a weighing of costs, whether time, resources, or threat to life, against the perceived or supposed economic, social or strategic benefits of successful recovery of material. There were clearly priorities in

what to take, and decisions on what to leave” (Gibbs 2006:17). Compared to scientific archaeologists, opportunistic salvors (i.e. Indigenous salvors, beachcombers, or sport divers) and systematic salvors (i.e. treasure salvors) choose what to take and what to leave, each impacting the site and archaeological record.

### *Actor-Network Theory*

To complement SFP studies, the thesis utilizes ANT as developed by sociologists Bruno Latour, Michel Callon, and John Law in the mid-1980s (Latour 2005; Dolwick 2009). As opposed to using dichotomies and causality to analyze relationships, the theoretical framework analyzes relationality between humans and non-humans. The theory is based on the idea that actors, both humans and non-humans, are associated with and connected to other actors in complex and variable relationships (Latour 2005:75; Dolwick 2009:36; Hodder 2012:9; Tuddenham 2012:233). Jim Dolwick (2009:36) states, “questions center around how actors become interconnected or how they fall apart and become disconnected and then reconnected.” Under this theory, actors are not limited to humans but extend to non-humans, such as animals, plants, and artifacts, as ANT “simply says that no science of the social can even begin if the question of who and what participates in the action is not first of all thoroughly explored, even if it might mean letting elements in which, for a lack of better term, we would call non-humans” (Latour 2005:72). To put it simply, Hodder (2012:95) states, “humans and things are entwined, involved with each other, dependent on each other, tied together.”

In ANT, actors play an integral role. First, to be considered an actor, one must have agency, which means one must be present and doing something (Latour 2005:52). Actors may “look busy” (Latour 2005:130) but if the actor “makes no difference, produces no

transformation, leaves no trace, and enters no account,” it does not have agency (Latour 2005:53). Actors without agency are referred to as intermediaries who “transport meaning or force without transformation” (Latour 2005:39). On the other hand, actors with agency are mediators who “transform, translate, distort, and modify the meaning or the elements they are supposed to carry” (Latour 2005:39). In ANT, humans or non-humans can become mediators for a period but may disappear and may eventually reemerge. For example, after being in storage, artifacts may be brought back as mediators by archives and museum collections (Latour 2005:80).

At any given time, there are always multiple actors at play. Latour (2005:46) argues, “to use the word ‘actor’ means that it’s never clear who and what is acting when we act since an actor on stage is never alone in acting.” These actors, or mediators, are associated with other actors as they “move [them] to do things,” creating traceable and visible networks that researchers can follow (Latour 2005:107-108; Dolwick 2009:37;39). The connections created in a network are not strictly human-to-human or object-to object but “will probably zigzag from one to the other” (Latour 2005:75).

In ANT, actors are also viewed as multi-dimensional. Callon (1999:194) argues, “the identity of the actor and the action...unfolds, is delegated and is formatted in networks with multiple configurations.” For example, a ship may transport valuable cargo for merchants, but the ship may also enslave people or kill them. In other words, actors may have different identities in multiple networks. In addition, these actors themselves may be interchangeable as networks. Dolwick explains this ANT idea in the context of maritime archaeology. A Portuguese carrack may be an actor within a large spice trade network but also be a network of cargo, materials, and

crewmembers itself. The spice trade may also represent a network but also be an actor within other markets or empires (Law 1987; Dolwick 2009:39).

To use the ANT framework, researchers must use the ANT slogan: to “follow the actors” objectively, systematically, and thoroughly (Latour 2005:121;178; Dolwick 2009:37). Latour (2005:19) argues,

It is as if we were saying to the actors: ‘We won’t try to discipline you, to make you fit into our categories; we will let you deploy your own worlds, and only later will we ask you to explain how you came about settling them.’ The task of defining and ordering the social should be left to the actors themselves, not taken up by the analyst. This is why, to regain some sense of order, the best solution is to trace connections between the controversies themselves rather than try to decide how to settle any given controversy.

Researchers cannot attempt to create order in the networks but instead must allow actors to make connections themselves, which they can then trace and make sense of afterwards. Dolwick (2009:42) argues that as a result, “one would produce a highly convoluted network with a multiplicity of diverse dates, places and people.” There cannot be any shortcuts taken by researchers (Latour 2005:177). Eventually, “one may see the many chains of actors” (Dolwick 2009:42). Researchers will then be able to “trace more sturdy relations and discover more revealing patterns by finding a way to register the links between unstable and shifting frames of reference” (Latour 2005:24).

There are key advantages to applying ANT to studies. For one, ANT can help identify stakeholders in a given network. Michela Arnaboldi and Nicola Spiller (2011:653) argue, by

identifying stakeholders, ANT helps “rebalance the unequal power distribution among actors and safeguard neglected dimensions.” As a result, researchers can treat all actors equally and pay more attention to marginalized actors, such as Indigenous voices. Another advantage is that ANT can help identify strengths and weaknesses in a network. In an ANT study on GIS implementations, it was identified that differences in actors and their interactions can result in different outcomes. Researchers can detect what works in networks and what does not (Martin 2000). In another study, a principal actor utilizing ANT was able to manipulate other actors and weaknesses in their network to successfully promote a sustainable tourism business in the Amazon forest (Dedeke 2017:171).

While ANT has been used mainly for material culture studies and archaeology, it has not often been applied in maritime archaeology (Van Oyen 2015:65). In maritime archaeology, Law (1984) was one of the first to utilize ANT while examining factors of Portuguese expansion. He argued that Portuguese success in expansion was due to interrelated factors such as “the technological, the economic, the political, the social, and the natural” processes (Law 1984:235; 1987). Today, ANT is continually applied to maritime studies. In 2012, using ANT, David Tuddenham examined what constitutes as a ship find and its belongings to determine how management may place different values on ship objects. Tuddenham concluded that ships are part of an interconnected network that makes it difficult to classify what a ship find is as there are humans and non-human factors that impact the definition of ship finds (Tuddenham 2012:232-233). In her 2017 Master’s thesis, Madeline Roth traces the various actors involved in the management of the Pacific Reef Wreck in Biscayne National Park. Her analysis resulted in a visual diagram to display the interconnectedness of the actors related to the shipwreck (FIGURE 3.4) (Roth 2018:139-141).

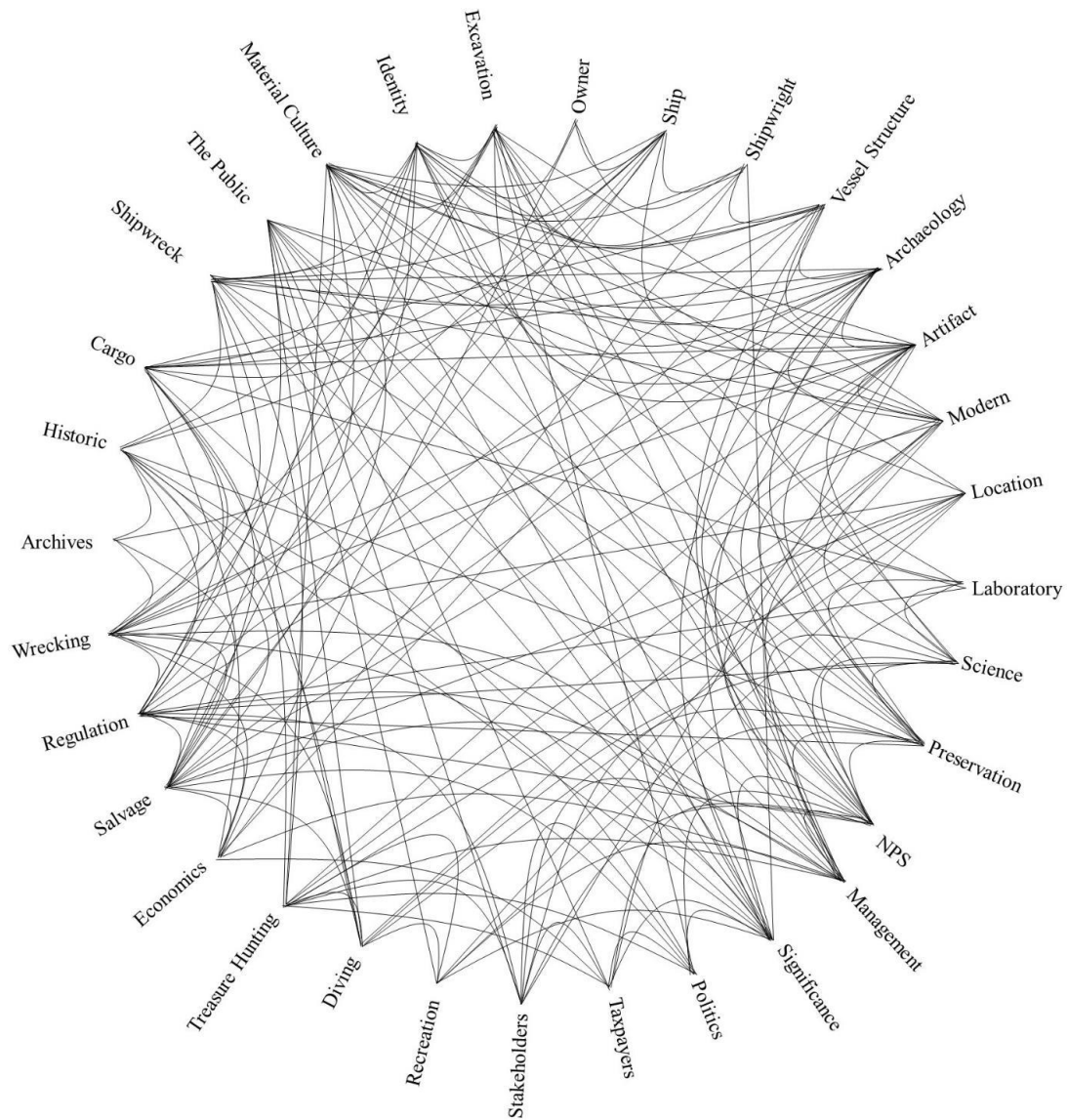


FIGURE 3.4. Actor-networks in the Pacific Reef Wreck (Roth 2018:140).

Based on ANT, this thesis analyzes the numerous ways in which human and non-human actors are connected to and associated with *Concepción* and *Santa Margarita* in the CNMI. Some examples of actors to be considered include, but are not limited to: commercial salvage companies, HPO officials, CNMI, codes of ethics, archaeological standards, artifacts, auction houses, antique dealers, money, NMI Museum of History and Culture, *Concepción*, and *Santa Margarita*.

### *Shared Heritage*

The thesis also explores the concept of shared heritage, as Manila galleons changed the history and people of the Marianas Islands. In the 1972 Convention concerning the Protection of the World Cultural and Natural Heritage, UNESCO shared recommendations for states to protect their cultural and natural heritage for future generations (UNESCO 1972). Protecting heritage is important as it helps “maintain temporal linkages with the past to preserve a sense of identity over time” (Labrador 2013:14). More precisely, shared heritage inclusive of all heritage helps to improve a nation’s identity and helps to portray a more complete history. As a leading agency tasked with preserving the U.S.’s cultural heritage, the National Park Service (NPS) prioritizes exploring the nation’s shared heritage. In 2013, NPS outlined five major goals to preserve the nation’s shared heritage, one of which was to “connect all Americans to their heritage resources in a manner that resonates with their lives, legacies, and dreams, and tells the stories that make up America’s diverse national identity” (NPS 2013:7). Under this goal, NPS sought to include under-represented groups to ensure that their perspectives and histories are incorporated into U.S. shared heritage because it helps connect “our personal experiences to our communities, to past events, and to current and future challenges” (NPS 2013:12-13). Exploring shared heritage helps to build a comprehensive view on a region’s rich and diverse history.

Based on UNESCO recommendations for the protection of cultural and natural heritage, numerous projects were undertaken to build shared heritage narratives. For example, between 2003 and 2006, the mayors of London launched the Mayor’s Commission on African and Asian Heritage (MCAAH), which emphasized the inclusion of historically under-represented heritages of African and Asian communities, who made up 30% of London’s population. The mayors asked community stakeholders to identify how London could better incorporate and reflect



African and Asian heritage and histories (Arokiasamy 2012:339-342). In another example, Al Quds University, Bezalel Academy of Arts and Design and the Jordan Society for Sustainable Development formed a partnership in 2008 called the Promoting dialogue and cultural Understanding of our Shared Heritage (PUSH) project to unite Jordanian, Palestinian and Israeli experts. The partners' goal was to preserve their region's cultural and natural heritage "as a means to respect and appreciate the cultures of the 'other' thereby advancing peace in the region" (Natsheh et al. 2007:13). In short, PUSH researchers explored their shared heritage for peaceful relations. The MCAAH and PUSH projects are proven success stories that incorporated various voices to build peaceful relations and preserve an inclusive shared heritage.

This thesis follows in the footsteps of previous shared heritage projects in Saipan. In 2009, McKinnon and Raupp (2011) explored and documented Spanish cultural heritage sites with the help of the local communities. This thesis utilizes information gathered from this project to further explore Saipan's Spanish colonial shared heritage. In 2017, McKinnon led another project titled *War in the Pacific: Difficult Heritage* to explore shared WWII conflict heritage by engaging Indigenous veterans and military families in community discussions (McKinnon et al. 2019). McKinnon et al. (2019:169) states that exploring shared conflict heritage in Saipan helps to "build a greater understanding, respect, and appreciation for other experiences and is a powerful argument and tool for conflict heritage management and protection, particularly in a post-colonial, descendant context." These projects allow the Indigenous voices in Saipan to take control of their own history and narratives.

Building and preserving shared heritage promotes tourism while highlighting local voices. For example, to portray local World War II histories in Trentino, Italy, researchers in the Italian War History Museum collected personal materials and published memories that shared

information about local war experiences. Researchers were able to use the first-hand narratives to offer different perspectives of the war while enabling visitors to connect with personal emotions and memories of the past (Pisetti et al. 2017:37). A similar project was conducted in Nakhonnayok, Thailand to interpret and present WWII experiences of residents as a means to support and promote tourism in the area (Siririsak 2015). Shared heritage is transformed as a resource that local communities can market for profit and community engagement.

In order to promote shared heritage, digital media may be used as a tool for community engagement. Previously, tourists were limited in learning about heritage from physical spaces such as archaeological sites, museums, and traditional practices. With the rise of digital media, however, tourists can access heritage virtually. Nicole Basaraba (2018:643) argues that digital media or,

interactive digital narrative (IDN) present an opportunity to tell complex narratives, increase interest in and respect of cultural heritage, create digital access where physical access cannot be granted, democratize heritage by creating opportunities for different or underrepresented social groups to be recognized and recorded, and allow for evolving interpretations and public contributions to cultural heritage narratives.

Thus, people do not have to physically visit a space to engage with and promote shared heritage.

Today, there are cases in which under-represented voices have used digital media successfully to engage others with their shared heritage. In one popular example, Indigenous peoples in Mauna Kea, Hawai'i were able to connect with local and distant communities using social media to raise awareness of and prevent the problematic construction of a 14th

international telescope on Indigenous sacred lands (Shay 2017:18). In another example, Angela Labrador created the One Eleuthera Web Portal website for the Eleuthera, Bahamas community. The website acted as “an online collaborative space to serve the goals of capacity building: the creative enhancement and transformative interfacing of available resources, meaningful projects, and committee communities” (Labrador 2013:125). The website provided an effective two-way communication bridge to allow researchers to share information about conservation and preservation while encouraging communities to also engage and be involved with their heritage (Labrador 2013). Digital media can help present and preserve shared heritage while involving all communities.

In conclusion, exploring shared heritage is a proactive approach to highlight local, under-represented, and Indigenous voices while promoting tourism and community engagement. As Labrador (2013:156) states,

shared heritage frameworks bring heritage practice to the surface of larger dialogues about economic opportunities, community livelihoods, and sustainability. When integrated in this way, heritage doesn't have to be continuously framed only in light of its needs for protection and defense but as a source for opportunity and creativity.

### *Conclusion*

Combined, the concepts of SFP, ANT, and shared heritage are used to provide the theoretical framework for this thesis. SFP provides the foundation to examine factors that affect shipwreck sites and the archaeological record. After further developing Muckelroy (1976;1978) and Stewart's (1999) ideas, Gibbs (2006) provides comprehensive ways to examine cultural

processes: by examining cultural impacts in the context of disaster or temporal stages and by defining types of salvage operations. As a result, archaeologists can examine different types of cultural processes that may impact a shipwreck site, from before the ship wrecked to long afterwards when it becomes part of the landscape and community. As a complement, ANT provides the framework of how to identify, follow, and analyze each cultural impact, or in ANT terms, the human and non-human actor and their actions in networks. Using ANT, this thesis carefully examines the impacts of cultural human and non-human actors that play a role in *Santa Margarita* and *Concepción*'s networks. Lastly, the concept of shared heritage places an emphasis on including under-represented, Indigenous voices in the portrayal and presentation of a region's cultural heritage. Shared heritage encourages under-represented and Indigenous peoples to take control of their narrative to benefit them as a community. Through this framework, this thesis explores *Santa Margarita* and *Concepción* as part of Saipan's Spanish colonial shared heritage.

## Chapter 4 Methodology

### *Introduction*

This thesis incorporates multiple methods, including literature research, textual analysis, and an ESRI Story Map application to analyze and display data. As part of the literature research, archives in the University of Guam, CNMI HPO and the National Archives of the Philippines were visited. The archival visits provided historical information from primary and secondary sources, but these sources originate from an outsider or Spanish perspective. To include Indigenous perspectives on Spanish colonial heritage in the Mariana Islands, research conducted by McKinnon and Raupp (2011) was consulted and oral histories were collected.

The thesis uses two textual analysis methods to analyze the archaeological validity of commercial salvage projects and publications on *Santa Margarita* and *Concepción*. The textual analysis of commercial salvage publications and correspondences regarding the two shipwrecks may add to our understanding of treasure salvage. This thesis uses the two shipwrecks as case studies to determine if commercial salvage operations may be considered archaeologically valid based on how they meet archaeological standards and ethics. To determine any biases towards treasure salvage, salvage publications and correspondences were also analyzed for key themes.

To share the results of the thesis, an online Story Map application was created using ESRI's free web-based GIS platform called ArcGIS Online. ESRI's Story Map application allows users to build a webpage that combines GIS maps, text, images and other media. The Story Map combines Indigenous knowledge from McKinnon and Raupp's (2011) research to build a GIS map of Spanish colonial heritage and additional research conducted as part of this thesis. The Story Map serves to preserve both Indigenous and scientific knowledge about Manila galleons and Spanish colonial heritage in the Marianas.

## *Literature Research*

Archival and historical research was conducted to gather information for the thesis. Primary and secondary sources provided information regarding the Spanish heritage and history of the Marianas, Manila-Acapulco galleon trade network, *Santa Margarita*, and *Concepción*. Archaeological research revealed current information about the Manila galleon shipwrecks.

Initial archival research was conducted during the 2018 East Carolina University (ECU) summer field school in Saipan. During the field school, the author visited the CNMI HPO archives to collect and scan records, reports, and correspondence between officials in CNMI agencies and commercial salvage companies regarding the projects conducted on the *Concepción* and *Santa Margarita* sites. Most documents relate to IOTA's salvage project on *Santa Margarita*, while some were associated with Proa's salvage project on *Concepción*. It is possible that due to an office fire in November 1992, other files regarding the shipwrecks and projects were lost (Deleon Guerrero 1995b). Regardless, the existing records share more detailed information and reports regarding the commercial salvage projects. All documents were organized and catalogued into digital folders. As a result, 470 digital documents were analyzed, which include reports, permits, artifact inventories, letters, notices, salvage contracts, plans, and curricula vitae (CV) of professionals involved with the salvage companies. Information obtained from the documents were organized into a digital database that records the person or agency that wrote document, date written or signed, contents, and keywords or themes of the document. This review concluded in July 2019 and was transferred to HPO in August 2019 for their record-keeping. During the 2018 field school, a visit was also made to the NMI Museum of History and Culture during their soft opening to view information about *Concepción* and its artifacts.

More intensive archival research was conducted in July and August 2019 during visits to the Richard F. Taitano MARC in Guam and the National Archives of the Philippines. From July 8-10, 2019, the author visited MARC at University of Guam in Mangilao, Guam and obtained help from researchers Omaira Brunal-Perry and Dorathina Herrero to access the Spanish Documents Collection. Starting in 1967, MARC researchers obtained documents from Mexico's *Archivo General de la Nación* (AGN), Spain's *Archivo General de Indias* (AGI), and Madrid's *Museo Naval* (MN) and *Real Academia de la Historia* (RAH). Over time, many documents were rewritten into legible formats, translated into English, and/or published (García 2004:514-518).

With the help of MARC's resources and archival catalogs, relevant documents for this thesis were found in AGN and AGI collections. Using limited Spanish, the author perused documents to search for keywords or combinations of keywords such as: *buceo de la artilleria* (salvage/diving for artillery), *piezas de artilleria* (pieces of artillery), *artilleria de bronce* (bronze artillery), *anclas* (anchors), *Santa Margarita*, and *Concepción*. Documents obtained from AGN were already typed in unedited Spanish typescripts by previous MARC researchers using original manuscripts. Most relevant documents from AGI, on the other hand, were only photocopies of original documents, but some have been translated into English. With help from a Spanish-speaking colleague, the author retyped documents and translated them into English using Google translate to obtain general information. These primary documents consist of letters, reports, or orders regarding the rescue of survivors and salvage or transfer of artillery from *Concepción* to Guam or the Philippines. The only primary documents at MARC on *Santa Margarita* were MARC researcher Marjorie Driver's (1983;1993b) translations of Father Juan Pobre's manuscript *Relacion de la Perdida del Galeon San Felipe* (1598-1603), or The Account of the Loss of the Galleon *San Felipe*. Pobre's manuscript provides the only surviving account of *Santa*

*Margarita's* wrecking event. Another translation of Pobre's manuscript by Micronesian historian Rodrigue Lévesque was also consulted (Lévesque 1993:157-201). In addition, the MARC translation of Father Francisco García's (2004) *The Life and Martyrdom of Diego de San Vitores* originally written in 1683 was also used towards understanding Spanish missionization in the Marianas from a Spanish perspective at the time. This work narrates the life and legacy of San Vitores, portraying a heroic and inspirational perspective of the Jesuit Father which lacks the incorporation of Indigenous perspectives (García 2004:xv). The primary sources obtained from MARC proved useful in gaining insight into Spanish accounts on the history of Marianas and the two Manila galleons.

Secondary sources obtained at MARC were equally valuable. MARC's resources consisted of a collection of index cards that documented ships' passage through the Mariana Islands since the 1500s (García 2004:516). Previous MARC researchers reviewed numerous primary and secondary sources at their disposal to compile information on these index cards. Information on the cards include names of ships, date of passage, what became of the ships, and other pertinent information. These cards were used to find primary and secondary sources about *Santa Margarita* and *Concepción* located in and outside of MARC. Another helpful resource only available at MARC was Victoria Corey's (1971) unpublished manuscript *Chronology of Ships Visiting Guam, 1521-1898*. Corey referenced crucial sources such as translated primary sources in Emma Blair and James Robertson's (1962) 55-volume series on the history of the Philippines and James Burney's (1817) five-volume series *Chronological History of the Voyages and Discoveries in the South Sea or Pacific Ocean*. Using these secondary sources, Corey provided more thorough information regarding *Santa Margarita* and *Concepción*.



After visiting MARC, a visit was made at the National Archives of the Philippines on August 14, 2019 to search for written records of Indigenous Filipino perspectives on the Manila galleons. This effort, however, was not successful. Even though there were Indigenous writings during the Spanish colonial period in the Philippines, they “were almost entirely obliterated” due to Spanish suppression (Punzalan 2007:383). In addition to the lack of Indigenous documents, the National Archives also had a limited collection of Spanish documents. Approximately 80% of documents are from the Spanish period, with some of the earliest dating from 1616. Almost all documents before 1725 are royal orders. In addition, there is limited material in the 1660-1760 period, and even less material on Manila galleons before 1680 (Wickberg 1955:80).

The National Archives’ collection may be lacking for various reasons. During war times in the Philippines, many archival collections were looted, destroyed, or burned. In one specific example, during the 1896-1899 Filipino-Spanish revolution and 1899-1902 Philippine insurrection, American forces used documents to wrap packages or for kindling fire. Other documents may have been lost due to transfers, condemnation for being “illegible or otherwise useless,” unauthorized destruction, flooding, and insect damage (Wickberg 1955:81). In one instance, Archives employees burned some documents to create more space in 1947. Furthermore, some original documents were transferred to other collections, never to be seen again (Wickberg 1955:79-81; Punzalan 2007:386). Unsurprisingly then, the visit resulted in only finding three documents related to *Santa Margarita* and *Concepción*: two royal orders regarding the salvage of *Concepción*’s artillery and an account of *Santo Tomas*’ rescue of *Santa Margarita* shipwreck survivors (de San Agustin 1698). These documents did not provide information that was not previously found from MARC sources.

While the 2019 visit to the National Archives did not reveal new data for this thesis research, there is potential for other researchers to obtain new information regarding Spanish history in the Pacific as it remains to be one of the main collections of Spanish documents but is the one least utilized by researchers (Wickberg 1955:77). For example, even though Blair and Robertson's (1962) monumental series was facilitated by the Philippine Library, they did not use documents from the National Archives. Archivist Ricardo Punzalan (2007:388) records, "the Spanish records [at the National Archives], while undoubtedly a collection of legitimate sources on Philippine history, is yet to be fully exploited."

In addition to visits to HPO, MARC, and the National Archives, the author consulted other translated primary sources in available publications. Originally published in 1609, Antonio de Morga (1971) provides the first insight into early Spanish history in the Philippines, albeit from the standpoint of a Spanish government official. In 1670, Andrés de Ledesma compiled information using letters from San Vitores and his companions about the second year of the Jesuit mission into a 28-page pamphlet that aimed to celebrate and educate others about the Jesuit mission in the Marianas (Ledesma 1975). Translated by Lévesque, Jesuit Father Peter Coomans (2000) shares information regarding the Chamorro culture and the Spanish mission in the Marianas from 1667 to 1673, which includes the beginning of the Spanish-Chamorro Wars. In 1700, French Jesuit historian Charles Le Gobien also used Jesuit letters to provide one of the first accounts on the history of the Marianas, notably recording Hurao's speech in 1671 from the Spanish-Chamorro Wars (de Morales and Le Gobien 2016). Other translated primary sources about Spanish colonial history were accessed in Blair and Robertson's (1962) series and Lévesque's (1993) 19-volume series on the history of Micronesia. Blair and Robertson (1962) translated Pedro Chirino's 1604 *Relación de las Filipinas*, Antonio de Morga's 1609 *Sucesos de*

*las Islas Filipinas*, Juan Grau y Monfalcón's 1637 *Memorial Informatorio al Rey*, and other documents from AGI and RAH. Lévesque (1993) translated documents, letters, and Jesuit reports that share information from early European exploration in the Marianas as well as the missionization period. The author also consulted primary sources written past the 1800s that record Chamorro culture and history, including French officer Louis Claude de Freycinet's 1827 publication of his 1819 scientific expedition in Guam and German Foreign Service officer George Fritz's 1904 *The Chamorro: A History and Ethnography of the Mariana Islands* (Fritz 2000; Freycinet 2003).

To complement these primary sources, secondary sources were also consulted to gather information about Spanish colonial history in the Marianas. Many of these works were published by MARC or the CNMI Division of Historic Preservation. In their book, Rosalind L. Hunter-Anderson and Brian M. Butler (1995) discuss Marianas prehistory before European contact. Glynn Barratt (2003) provides detailed accounts of each major European visitor to the Marianas from 1521 to 1721. Aside from Burney's (1817) series, Felipe de la Corte y Ruano Calderon (1875) and Luis de Ibáñez y García (1992) provide a history of the Marianas in the 1800s. Under MARC, Micronesian historians Father Francis X. Hezel and Marjorie Driver also published works on the Spanish colonization in the Marianas (Hezel and Driver 1988; Driver 1991;1993a). Former CNMI Archaeologist Scott Russell (1998) details Chamorro culture before and during Spanish contact in his book *Tiempon I Manmofo 'na*, while referencing other works on Chamorro history. Hezel (2000; 2015) provides invaluable insight on the hostilities between Spaniards and the Chamorro people during the Spanish-Chamorro Wars. In 1949, Alexander Spoehr (2000) spent a year conducting anthropological research into Saipan's history from pre-European contact to post-World War II and documenting NMI culture for a year, which provides a

comparison to the culture during the Spanish missionization period. Like Spoehr (2000), historian Robert Rogers (1995) focuses on one island and provides an extensive history of Guam from 1521 to 1990. A more recent work on the overall NMI history can also be found in Toni Carrell's 2009 book *Maritime History and Archaeology of the CNMI* (Brunal-Perry et al. 2009).

While useful, many of these primary and secondary sources are from outsider perspectives. These publications highlight Non-Indigenous experiences in written history without considering Indigenous narratives from oral histories and traditions. While the Indigenous people were heavily impacted by Spanish colonization in the Marianas, the Spanish perspectives form the dominant narrative of written history during this time. Chamorro people did not have a written language and instead recorded histories in oral tradition, dance, and family rituals of remembrance and passed them down through generations (Russell 1998:160; Dixon et al. 2010). As a result, the archival records only document Spanish-Chamorro interactions and Indigenous traditions as told by shipwreck survivors, priests, or royal orders (Driver 1983;1993b; Lévesque 1993; García 2004; Dixon et al. 2010:292-293). Recording only outsider perspectives in written history means that “outsiders [control] the production of knowledge” about past events (Hempenstall 2000:43). Creative media professor Vilsoni Hereniko (2000:84-85) criticizes, “the written word encourages the view that there is but one truth, and this truth can be discovered through rigorous research.” Moreover, “schools, colleges, and universities value the written word over and above oratory...[as a result,] Indigenous ways of being [continue to be] marginalized” (Hereniko 2000:84). Historian Vincente Diaz states the value continually placed on Spanish narratives in written history “comes at the systematic expense of Chamorro ‘agency’ in history” (Diaz 2000:375). To sum up, Spanish perspectives dictate the written history of Spanish colonization of the Mariana Islands because of scholarly emphasis on written records. Because of

this, Indigenous perspectives and histories were not central to building the narrative of the Spanish colonization.

Instead of outsiders dominating Indigenous history, Hereniko suggests scholars to invite Indigenous peoples to conduct research alongside them. Otherwise, “not to do so is to perpetuate unequal power relations between colonizer and colonized” (Hereniko 2000:84). One way that scholars can study Indigenous Chamorro perspectives is through recording and preserving their oral histories and traditions. According to Guam chant leader Leonard Z. Iriarte, *lâlai* or “chants preserve information and facilitate the remembrance of past events” (Farrer and Sellman 2014:130-131). These oral histories are passed down through centuries in the Mariana Islands.

Recently, more work is being done to record Indigenous oral histories of the Spanish colonization in the Marianas. In *Repositioning the Missionary*, Diaz (2010) criticizes prevailing Spanish narratives about the Spanish missionization and instead highlights Indigenous narratives to study the Chamorro culture and history during this time. In 2009, McKinnon and Raupp (2011) documented Spanish cultural heritage in the CNMI based on information provided by grey literature such as reports and site files, primary and secondary sources, and conversations with heritage practitioners and locals. As a result, 70 heritage “sites,” including tangible and intangible heritage, were identified and recorded. This research revealed that there is still a strong connection with the history of the Spanish colonial period, which appears in every aspect of the Marianas culture (McKinnon and Raupp 2011). During a 2019 visit to Saipan, information was also collected from two local Chamorro historians Fred Camacho and Genevieve Cabrera in Saipan. Unfortunately, Camacho and Cabrera revealed that there were not many surviving oral histories about Indigenous connections to Manila galleons and Spanish colonial heritage (Fred Camacho and Genevieve Cabrera 2019, pers. comm.). Lino Olopai, an Indigenous Carolinian in

Saipan, shared information about his family's oral histories from the time period (Lino Olopai 2019, pers. comm.).

Regarding Manila galleons, there have been many publications on the topic, but mostly from a historical, rather than an archaeological, perspective. Among the first publications were those of Martha Steele (1925) and William Lytle Schurz (1939). In 1925, Steele (1925) published her findings in a thesis from the University of Hawai'i at Mānoa entitled *The Manila Galleon and the Trade Relations between the Philippines and New Spain 1521-1811*. In 1939, Schurz (1939) compiled historical information and published his findings in a book entitled *The Manila Galleon*. Since Steele and Schurz's publications, more recent works have appeared which reveal the complexities of the Manila galleon trade. These include: Andrew Peterson's (2014) dissertation *Making the First Global Trade Route*, Shirley Fish's (2011) book *The Manila-Acapulco Galleons*, Rainer F. Buschmann, James B. Tueller, and Edward R. Slack's (2014) book *Navigating the Spanish Lake*, Arturo Giráldez's (2015) book *The Age of Trade*, and Edgardo Angaro and Carlos Madrid's (2017) book *The World of The Manila-Acapulco Galleons*.

Like publications on Spanish colonization in the Marianas, publications on Manila galleons also primarily rely on Spanish sources and lack Indigenous perspectives. For example, historians Peterson (2014) and Giráldez (2015) utilized many primary Spanish sources such as journals and letters written by Jesuits, friars, travelers, and government officials for their works. In their book, Buschmann, Tueller, and Slack (2014) actively sought to highlight Indigenous and minority contributions in their book, however, the *indio*, or Filipino, perspective was largely absent. While these authors have shed light on the Spanish empire and global economy during the 17th century from the Spanish perspective, there is still much to be learned about the Manila-Acapulco galleon trade from Indigenous perspectives during this time.

In recent years, there is increased archaeological research presented on Manila galleons. For instance, at each of the APCONF conferences, papers, presentations and posters of historical and archaeological research were presented on the topic. In 2011, at the first APCONF held in Manila, Philippines, one of the sessions focused on history and archaeology in Spain and the Asia-Pacific region (Museum of Underwater Archaeology [MUA] 2018). Researchers like Robert Junco (2011) presented their findings about Manila galleons. In 2014, the second APCONF held in Honolulu, Hawai'i included a session entitled Iberian Global Interactions: The Manila Galleon and the Roteri, where researchers shared their findings about Manila galleons, particularly about topics such as disasters involving Manila galleons, the Beeswax wreck, and a geovisualization of the Manila-Acapulco galleon trade network (MUA 2018). In 2017, at the third APCONF in Hong Kong, there was a session called The Archaeology of Manila Galleons, Past, Present and Future. Researchers presented their updated findings and future research on the galleon trade network. For example, Jun Kimura presented on his current archaeological project on a Manila galleon project in Japan, while Jennifer McKinnon presented on *Santa Margarita* and *Concepción* (McKinnon 2017; MUA 2018).

Recent research on *Santa Margarita* and *Concepción* was also conducted by salvors. Starting in 1985, PSR undertook archival and historical research in seven countries to find more information about *Concepción*. PSR started surveys and excavation in March 1987 and finished in July 1988. They documented their progress in monthly reports to CNMI HPO. In 1990, PSR published their final report on the excavation and findings at the *Concepción* site. The information includes historical background, archaeological work, artifact description and distribution, wrecking process, and the environmental monitoring program (Mathers et al. 1990). Between 1991 and 1993, Proa recovered *Concepción* artifacts from Agingan beach (Scales and

Rankin 2002:30-31). From April 1999 to March 2002, Proa conducted an extended Phase I survey and testing at Agingan beach and shared their findings in a 2002 draft report (Scales and Rankin 2002).

Compared to *Concepción*, there are less records and publications related to *Santa Margarita*. In 1987, PSR published a preliminary report of an inspection visit of Santa Margarita (PSR 1987b). Intermittently between 1994 and 2008, IOTA conducted excavations and surveys of the site and submitted annual reports to CNMI HPO but did not submit a final report of their project (Fuller 2007; Harbeston 2008).

Further information on *Santa Margarita* and *Concepción* were collected during a research visit to Saipan in July 2019. HPO CNMI Archaeologist James Pruitt and Historian Lucas Simonds provided information regarding other salvage and looting activities on *Concepción*. Furthermore, Pruitt provided archaeological evidence of remaining artifacts at the *Concepción* site (James Pruitt 2019, pers. comm.). Unfortunately, attempts to study *Concepción* artifacts from the NMI Museum of History and Culture were not successful. No reasons were provided as to why access was not granted.

Aside from *Santa Margarita* and *Concepción*, three sites associated with Manila galleons have been identified and explored: *San Agustín* in Drake's Bay, California, *Nuestra Señora del Pilar de Zaragoza y Santiago* near Coco's Island, Guam and *San Diego* outside of Manila, Philippines (Junco 2011). In addition, two probable Manila galleons have been located and investigated by archaeologists, but not positively identified: the Beeswax wreck in Oregon (Peterson et al. 2011; Williams 2014) , and the Manila galleon in Baja California (Junco 2011). All known Manila galleon shipwrecks were found near the coast and have been either studied by archaeologists or salvaged by treasure hunters (Junco 2011; Peterson et al. 2011; Williams 2014;



McKinnon 2017). Junco (2011) provided an overview of these Manila galleon sites in a presentation called “Archaeology of the Manila Galleons” at the 1st Asia-Pacific Conference on Underwater Cultural Heritage in Manila.

### *Textual Analysis*

When treasure salvage companies conducted surveys and excavations on *Santa Margarita* and *Concepción*, they disrupted or destroyed the archaeological context of the site, which then affected the integrity of the archaeological site and the availability of information contained in it. Two methods of textual analysis explore the archaeology of these salvage projects. The first method compares the projects to archaeological ethics and standards while the second method determines key themes or biases.

The first method of textual analysis examines the commercial salvage activities and publications on *Santa Margarita* and *Concepción* and compares them to categories found in standard archaeological reports, as well as to ethical principles set by professional associations such as SHA, ACUA, and RPA, which guide archaeologists with their ethical principles and standards. The goal of the first textual analysis method was to determine how salvage companies and their publications meet or fail to meet ethical and archaeological standards.

As one of the first professional archaeological associations, SHA was first incorporated on April 1, 1968 (Cleland 1993). It was almost 20 years later, in 1987, that SHA formalized a list of their goals as a Society (Costello 1993). Based on these long-held goals, SHA adopted their Ethics Statement in 2003 and last updated it in December 2015. According to the SHA Ethics Statement (2017), archaeologists must support preservation and management, disseminate research, collect reliable and thorough information, prevent assigning commercial value to

artifacts, prevent engaging in the sale of artifacts, and promote education about archaeology. They must adhere to these guidelines as part of their work (SHA 2017).

ACUA, another professional organization for underwater archaeology, established core principles and adopted the SHA Ethics Statement by which members must abide (ACUA 2020; Toni Carrell 2020, pers. comm.). Modeled after ACUA and SHA ethics and published on August 5, 2015, ACUA core principles include promoting ethical awareness and promoting anti-harassment and anti-discrimination policies. There are seven principles as part of their ethics statement, which include abiding by professional standards of ethics and practices, supporting long-term preservation and management of resources, disseminating research, collecting reliable data, respecting others, encouraging education, and not being involved in commercial exploitation (ACUA 2018; Toni Carrell 2020, pers. comm.).

Finally, the RPA is the third major professional organization in underwater archaeology. In 1998, RPA emerged from the Society of Professional Archaeologists (SOPA), which was originally formed in 1976 with their own code of ethics and standards. Upon their formation in 1998, RPA established a Code of Conduct for archaeologists to follow (Jameson 2004:38). RPA's Code of Conduct requires members to abide by a set of standards and responsibilities to stakeholders, employers, and clients. The standards are broken down to six categories: adequate preparation for research projects, integrity of research methodology, procedures for field survey or excavation, maintaining continuity of records, specimen and research record storage, and appropriate dissemination of research (RPA 2018). These categories outline detailed standards and procedures for members to follow, including using methods, recording data accurately, and cataloguing artifacts properly. Some of the responsibilities of RPA members include supporting conservation of cultural resources, publishing reports for interested parties to read, not

undertaking research for which she/he is not qualified for, and not engaging in commercial exploitation of artifacts (RPA 2018).

For the purpose of this study, SHA, ACUA and RPA’s ethics were consolidated to determine commonly shared standards of ethics and practices (TABLE 4.1) (SHA 2017; ACUA 2018; RPA 2018).

TABLE 4.1. Commonly shared ethical principles between professional associations.

<b>Ethical Principles</b>
Not engaging in commercial exploitation or illegal activities
Appropriate qualifications and training to conduct work
Dissemination of research and results
Preservation, conservation and management
Public outreach, education

TABLE 4.2. Standard archaeological categories of archaeological publications (Price 2016:56).

<b>Standard Archaeological Categories</b>
Title Page
Table of Contents, Figure Lists, Table Lists
Introduction
Site Orientation and Location
Physical Environment
Site Formation Processes
Methodology
Results
Interpretations
Recommendations
Summary/Conclusion
Site Map
Scaled Photos, North Arrows
Sources for Maps/Historical Photos
Artifact Counts or Artifact Measurements
Bibliography/References Cited
Appendix

In the first method of textual analysis, the reports are also analyzed based on how they meet standard archaeological categories. This analysis is based on the method developed and used by Melissa Price for her Master’s thesis at ECU which analyzed treasure salvor publications from a range of Spanish colonial shipwreck sites in Florida (TABLE 4.2). Like Price’s research,

this analysis examines the presence of a list of categories in the salvage reports and findings of treasure hunting companies and compares them to those in a standard archaeological publication (Price 2016).

The second method of textual analysis includes consideration of the themes and keywords used by commercial salvors. Some keywords and themes may be present in the commercial salvage company publications and correspondences. As such, these documents were searched for themes and keywords for later comparison to archaeological themes and keywords. This analysis may reveal the differences between emphasis in goals of archaeologists and treasure salvors.

#### *ESRI Story Map Application*

Results from the thesis were shared using ESRI's online GIS application named Story Map in order to illustrate and preserve knowledge about Spanish colonization in the Marianas. GIS specialists and archaeologists David Wheatley and Mark Gillings state "the behavior of past peoples left clear patterns inscribed upon space, which archaeologists could subsequently identify and measure" with the help of GIS (Wheatley and Gillings 2002:7). GIS is a "computer-based system to store, manipulate, analyse, and present information about geographic space" (Wheatley and Gillings 2002:9; Kimura 2006:23). The system provides a dynamic environment for archaeologists to record, integrate, investigate, and analyze data including but not limited to: artifacts, environmental factors, sites, and boundaries (Wheatley and Gillings 2002:18). While GIS use in archaeology began in the early 1980s, it was not until the early 2000s that its use in the field became more popular (Wheatley and Gillings 2002:9; Kimura 2006).

With GIS, archaeologists can create maps to record and analyze information. According to geographers Jennet Seegers and Alberto Giordano (2015:543), a map is “living document that depicts either an individual’s or a group’s knowledge constructs through space and time.” In other words, maps preserve an individual’s or a group’s spatial information about an area. Archaeologists, however, must not only depend on scientific knowledge obtained from archival, historical, and archaeological data to build maps. Alina Álvarez Larrain and Michael McCall (2019) argue that Indigenous knowledge from Indigenous or local communities contributes to forming well-rounded ideas about past landscapes, as opposed to solely relying on scientific knowledge. This is because Indigenous knowledge obtained from oral histories, traditions, and practices have spatial associations to their environment which may provide a more accurate picture of the cultural landscape (Dunn 2007:622). By adding more perspectives into the creation of GIS maps, Sheila Steinberg and Steven Steinberg (2015:192) state that

...implementing a spatially based, multiple methods approach provides the researcher with various perspectives and sources of data about the issue under study. Adopting a mono-focused spatial view of a problem or issue under study can tend to produce a limited or narrow view of the issue.

In her PhD dissertation, Mary Brennan uses the multiple methods approach to combine data from oral histories, archival records, and archaeological investigations to better understand kinship groups in the Arkansas Ozarks uplands. Based on her conclusions about the kinship groups, Brennan (2009:83-84) claims that depending on “only one source of data provides an inaccurate. ...analysis and interpretation of the cultural landscape.” Incorporating Indigenous knowledge to

build GIS maps is called Participatory GIS (PGIS). PGIS “emphasize[s] community involvement in the production and/or use of geographical information” (Dunn 2007:616). PGIS differs from GIS in that Indigenous or local knowledge is at the center of data collection and interpretation, as opposed to scientific research. In PGIS, archaeologists and Indigenous or local communities collaborate to identify and “[capture] local people’s spatial understandings and perceptions of their surrounding environment” (Steinberg and Steinberg 2015:192). As a “decolonizing tool,” PGIS disengages archaeologists as caretakers of the past but instead empowers Indigenous communities to become active agents in the preservation, management, and representation of their knowledge and cultural heritage (Steinberg and Steinberg 2015:194; Larrain and McCall 2019:645-652;671). With the help of PGIS and Indigenous knowledge, archaeologists can then better understand and interpret cultural landscapes.

This thesis uses both Indigenous and scientific knowledge to build GIS maps related to Manila galleons and Spanish colonial heritage in the CNMI. Sources of information include McKinnon and Raupp’s (2011) Spanish heritage project, publications, correspondences, maps, oral histories, and archival, historical and archaeological research. To preserve and spread this knowledge on Manila galleons and Spanish colonization in the CNMI, the information is shared online using ESRI’s free web-based GIS platform called ArcGIS Online. ArcGIS Online allows users to create Story Maps, which combine maps with narrative text, images, and multimedia content in an easy-to-build webpage without requiring computer programming (ESRI 2019). This thesis employs the Story Map Series template to present content, maps, images, and videos via tabs, numbered bullets, or a 'side accordion' control (ESRI 2019). This website is based on other models of Story Maps that incorporate Indigenous knowledge from oral histories and scientific knowledge. For example, in the Harvest Moon Oral History Project, Kent Davies and

Kimberley Moore collected oral histories about the town of Clearwater in Manitoba, Canada in order to preserve the town's history by highlighting people's stories in a Story Map (Davies and Moore 2017). Another similar project is Sam Raby's Placing Oral Histories, where maps are used to display and humanize refugee oral histories (Raby 2017).

Using an online publication like ESRI Story Maps provides universal access to information for a wide audience for free (Richards 2006:217). In addition, it allows users to interact and engage with the material so they "assume responsibility for [one's] own learning and make decisions" (Lock 2006:231; Steinberg and Steinberg 2015:347). Furthermore, the online Story Map will "act as a digital knowledge bank to safeguard this knowledge for current and future generations," while encouraging dialogue between generations about the protection and management of their tangible and intangible cultural heritage (Larrain and McCall 2019:663-665). In summary, sharing information about Manila galleons and the Marianas' Spanish colonial heritage in an ESRI Story Map may help to highlight and preserve Indigenous and scientific knowledge about the Manila-Acapulco galleon trade network and the Spanish colonial period in the Mariana Islands.

### *Conclusion*

Literature research provided invaluable information regarding the two Manila galleons and Spanish colonization efforts in the Mariana Islands. The visits to three archives in the Pacific region resulted in finding primary and secondary sources about the topics. Information about commercial salvage projects on *Santa Margarita* and *Concepción* were obtained through correspondence, reports and publications. The commercial salvage projects' actions and texts were analyzed to determine the archaeological validity of their salvage projects. Using textual

analysis, the treasure salvage projects and their publications were compared to archaeological ethics and standards and analyzed to determine key themes or biases.

While literature research proved useful in providing resources for the thesis and textual analysis, information was limited to outsider or Spanish perspectives preserved in written records. With a scholarly bias towards written records, this meant that Indigenous perspectives recorded in oral histories were not used to build knowledge about Spanish colonization in the seventeenth century. Therefore, the thesis prioritizes Indigenous knowledge from Indigenous members to build a more accurate narrative of Spanish colonial history in the Marianas. To supplement these data, the author attempted to record oral histories during fieldwork but was not successful in doing so due to the lack of preserved oral histories of the time period. Nevertheless, since outsider or Spanish perspectives remain to dominate the narrative of the Spanish colonization in the Marianas history, results of the thesis research were shared using an ESRI Story Map as a tool to decolonize Marianas history and preserve Indigenous and scientific knowledge for current and future generations.



## Chapter 5 Results and Analysis

### *Introduction*

After their shipwrecks, *Santa Margarita* and *Concepción* experienced salvage activities by Chamorro people, Spanish, modern treasure salvors, and local communities. These activities spanned four centuries and include opportunistic salvage and systematic salvage. Each activity impacted the sites and resulted in the removal or movement of artifacts. The salvage projects' activities were analyzed and compared to archaeological ethics and standards as set by professional archaeological associations. Furthermore, salvage reports were examined to determine how they compare to standard archaeological categories. Afterwards, the salvage companies' activities were studied for key themes presented during their projects.

### *Santa Margarita*

After it wrecked on February 9, 1602, *Santa Margarita* remained aground for many years in 30-60 feet of shallow water (PSR 1987b:3; Scott Russell 2019, pers. comm.). Because of easy access to the shipwreck, Chamorro people salvaged the ship for items, including iron, nails, weapons, and gold. In 1904, Fritz recorded that in the ruins of Rota, there were “peculiar bronze containers...[which] all have a deposit on the bottom which seems to have held a nail” (Fritz 2001:54). Fritz shared that the “purpose is unknown, but they are surely of foreign origin” (Fritz 2001:54). In a footnote, editor Scott Russell clarified that these nails, or *clavos*, were “manufactured in the Philippines and carried back to Spain aboard Manila galleons. These have been recovered in large numbers from the wrecks of the [*Concepción* and *Santa Margarita*]. These shipwrecks were undoubtedly the source of local supply” of nails (Fritz 2001:97). *Clavos* were also used as fishing hooks and as coconut oil lamps. People also recovered and used

cutlasses, machetes, and knives (Quimby 2010:12). In addition, Chamorro people decorated trees with gold from the shipwreck. During McKinnon and Raupp's field investigations, Chamorro oral history corroborated information regarding the *Santa Margarita* shipwreck and salvage of its remains (McKinnon 2017).

The next documented cultural impact upon the site occurred in the 1980s. From June 3 to June 11, PSR (1987b) conducted an initial inspection visit in Rota with three goals: to search for *Santa Margarita*, to determine environmental conditions, and to build relationships with locals. They published their results in a report (PSR 1987b:3). From historical research, PSR reported that after the shipwreck, Chamorro people had "gold chains around their necks and ornate gold crucifixes hanging from trees and in their modest houses. ...[In addition,] not all of [*Santa Margarita's*] guns were raised, and those that were salvaged were reported to be in poor condition" (PSR 1987b:3). In association with the shipwreck, PSR records that "at a point on the northwestern coast of Rota there is a place called *I Batku*, which translates to 'The Ship'" (PSR 1987b:3). Based on historical accounts, snorkel and diver surveys, beach surveys, and metal detector surveys, PSR found the shipwreck remains in a challenging location with thick coral growth. In the survey area, they identified ballast stones, glass beads, porcelain sherds, stoneware sherds, and copper alloy artifacts. PSR recovered some representative sherds and copper alloy artifacts for research. It is presumed that PSR maintains possession of these artifacts. According to Russell (2019, pers. comm.), "PSR was concerned about the amount of reef destruction that would be necessary to expose remnants of the ship and her [sic] cargo." In the report conclusion, PSR shares that challenging environmental conditions necessitated unique equipment and methods that they did not have yet, including sub-bottom profilers and a way to tow a magnetometer across the reef safely (PSR 1987b:4). According to the report, PSR's original

intention was to finish the project on *Concepción* before pursuing the project on *Santa Margarita* (PSR 1987b:6). Russell (2019, pers. comm.), however, shares that PSR eventually decided that because of the heavy coral overgrowth, and because *Santa Margarita* laid accessible and was salvaged by Chamorro populations, the wreck was not a financially viable candidate for a salvage project.

In 1990, IOTA Partners, Inc. (IOTA), led by Jack Harbeston, displayed their interest in *Santa Margarita*. On their January 23, 1990 project proposal, IOTA states their “long term goals are to recover shipwrecks in an exemplary archaeological manner, and for a profit” (IOTA Partners [IOTA] 1990:1). On April 12, 1993, CNMI and IOTA signed a Marine Survey and Salvage Lease Agreement, which granted IOTA exclusive rights to conduct marine survey and salvage operations in CNMI territorial waters within 12 miles from its baselines. Contract conditions include conducting operations in accordance with the data recovery plans, preserving and keeping an inventory of the artifacts, having a qualified marine archaeologist directing work, submitting monthly written reports, complying with all laws and regulations, and allowing CNMI locals to invest and work with the operations (HPO 1993c). In addition to complying with legal and archaeological requirements, the contract stipulated IOTA “minimize disturbance and damage to the marine environment” (HPO 1993c:18). Under this agreement, IOTA bore all costs of operations. In terms of distribution of artifacts, the contract stated that IOTA received 75% of the profits from artifacts salvaged and sold while CNMI received 25%. Intellectual property belonged to both IOTA and CNMI, with any income from intellectual property also split 75% to IOTA and 25% to CNMI. Items with “no commercial value” belonged to the CNMI (HPO 1993c:12).

Under Coastal Resource Management (CRM) Minor Coastal Permit RSm-93-x-161, IOTA first began reconnaissance surveys in January 1994 (Gourley 1995). The 1994 IOTA team, led by archaeologists Frank Rackerby and B.C. Hendrick, conducted pedestrian beach surveys, magnetometer surveys, and mapping investigations along the northern coast of Rota (Koski-Karell 2005). They identified porcelain sherds possibly associated to *Santa Margarita* (Rackerby 1994). In 1995, they continued conducting historical research, mapping, and magnetometer surveys. On June 26, 1995, IOTA announced in a press release that they identified *Santa Margarita*, and found objects such as “numerous trading beads, and an oval-shaped garnet weighed at 10 karats” (IOTA 1995a:3; Koski-Karell 2005). According to a progress report, IOTA also found bronze sheets, gemstones, storage jar sherds, and a two-ton anchor (Harbeston 1995a). It was found, however, that IOTA was recovering extraneous amounts of artifacts outside of their survey permit (Deleon Guerrero 1995a).



FIGURE 5.1. Site location of *Santa Margarita* (IOTA Partners 2005).

In late 1995, IOTA received CRM Minor Coastal Permit RLRm-95-x-189, United States Army Corps of Engineer (USACOE) Mooring Permit under File No. PODCO G95-017, USACOE Excavation Permit under File No. GNWP96-001, and a Division of Environmental Quality (DEQ) Water Quality Certification (WQC) permit (Dayton 1995; Gourley 1996a; Sablan 1995; Fuller 2007). These permits allowed IOTA to conduct surveys and excavate given there was an approved plan and a qualified archaeologist. In November, Rackerby sent a draft of an “archaeological” plan to excavate test units. This plan was critiqued by former CNMI Historic Preservation Officer Joseph Deleon Guerrero as it did not have all the required information, including a clear research design, excavation and conservation methods, and names of the archaeologist and conservator (Deleon Guerrero 1995c). Around this time, IOTA was caught doing more than minor work. On December 11, HPO received complaints on multiple occasions that IOTA was illegally diving and salvaging areas without a permit. In a note, IOTA publicist Lynn Knight stated that IOTA’s activities may have been due to a misunderstanding regarding the status of their permits (Duenas 1995). After being rushed by IOTA to approve the plan, Deleon Guerrero permitted a conditional approval, given IOTA provided information on the principal investigator and a conservation plan before starting work, and that IOTA provide a report at the end of their work (Deleon Guerrero 1995d).

At the start of 1996, IOTA mobilized for excavation operations (Gourley 1996b). On February 26, 1996, IOTA received CRM Permit RMS-96-X-12 to conduct systematic dredging and excavation (Deleon Guerrero 1996b). Deleon Guerrero approved an inadequate plan, given revisions were submitted by November 28, 1995, so that IOTA may move forward with their project (Deleon Guerrero 1996a). With this conditional approval, IOTA received USACOE Permit 960100004 to conduct excavation work, with requirements to conduct archaeological

work, protect the marine environment, have a supervising archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards, and to prepare a thorough report for submission at the termination of the project (Hihara-Endo 1996). After satisfying these requirements and hiring archaeologist Dr. Margaret Rule, IOTA started their excavations in June 1996. Findings from the season included glass beads, copper ingots, metal concretions, porcelain sherds, *clavos*, ship timber fragments, and ballast stones. These artifacts were conserved using a desalination process in IOTA's laboratory facility in Song Song village, Rota (IOTA 1996a; Harbeston 1996b).

As soon as the project began, problems surfaced. On June 18, 1996, IOTA replaced Margaret Rule with the diving supervisor William Spurlock as the supervisor of the excavation because IOTA investors wanted operations to be conducted at a faster pace. This effectively violated permits and agreements (Deleon Guerrero 1996c:1). In addition to the problematic restructuring of directors, three IOTA archaeologists, Joanne Eakin, Colin McKewan, and Phillip Wright, complained of unsafe working conditions and equipment, and of inexperienced and unqualified divers conducting work (Eakin et al. 1996). These three IOTA archaeologists, as well as Rule, eventually resigned during the field season (Deleon Guerrero 1996d). Harbeston complained the archaeologists were conducting "meaningless work, [which was] a total waste of time during a short dive season" (Russell 1996:2). To replace the archaeologists, IOTA hired archaeologist Daniel Koski-Karell to resume operations (Harbeston 1996a). On September 30, Koski-Karell's contract ended, and he was replaced by Jinky Smalley, a graduate student from the Program in Maritime Studies at ECU (Deleon Guerrero 1996e). While Smalley took classes, she did not graduate from ECU.

After the 1996 field season concluded, IOTA failed to submit their revised plan on the agreed upon date of November 28, 1996. Approximately five months later on April 1, 1997, IOTA submitted a draft revised plan. Unsurprisingly, the plan was deficient for many reasons (Deleon Guerrero 1997). Due to problems with the plan and permits, there was no work conducted in 1997. In 1998, IOTA also did not conduct field operations, but monitored the conservation treatments of artifacts previously collected (Harbeston 1999a; Koski-Karell 2005).

In 1999, after having difficulty in finding archaeologists, IOTA hired archaeologists James “Rob” Reedy and Stanley Davis (Deleon Guerrero 1999b; Russell 1999b). This season, IOTA requested to use a jack up barge as a platform for a crane to carefully remove heavy boulders and concretions, to which USACOE and DEQ approved. As a result, the USACOE and WQC permits were amended to permit the jack up barge (Walters 1998; HPO 1999; Deleon Guerrero 1999c; Fuller 2007). In June, IOTA continued their project. Findings for the season included glass beads, *clavos*, metal, stone, and wood fragments, ship timbers, rope fragments, ballast stones, and ceramic sherds (Koski-Karell 2005). Artifacts were conserved in IOTA’s Song Song laboratory facility (IOTA 1999a). According to Reedy, a lack of ship’s fittings and armaments and a limited number of personal items indicate that *Santa Margarita* may have been salvaged previously (Bulgrin 1999). In addition to *Santa Margarita*’s remains, IOTA identified modern debris such as fishing hooks, lead weights, World War II ordnance, tennis shoes, and beer cans (Falk 1999).

Like the 1996 field season, the 1999 season was fraught with problems. IOTA reported that they employed a crane and chisel to remove boulders and concretions in order to find artifacts faster (Harbeston 1999b). As a result of the improper use of equipment, DEQ issued a stop work order in October which appeared to have lasted less than 48 hours (IOTA 1999b;

Fuller 2007). DEQ was concerned that the crane and chisel were being used to “smash boulders and perform mass excavation,” which deviated from the agreed terms of their WQC (Cabrera 1999:3; Division of Environmental Quality [DEQ] 1999). The stop work order was lifted when it was realized that DEQ did not have the authority to issue one. While the stop work order increased mistrust between IOTA and CNMI, they eventually resolved the dispute by amending permits and plans (Nutting 1999).

In the 2000 field season, there were continued issues. In the spring, Reedy and Davis resigned. Because Reedy could not communicate with HPO due to his contract stipulations, Davis communicated with HPO. Davis voiced the main concerns regarding the project, including IOTA’s emphasis on commercially valuable artifacts, improper conservation and storage methods of artifacts, and use of untrained divers to conduct archaeological work (Russell 2000). The concerns were justified. In March 2000, IOTA lawyer Steve Nutting stated that artifacts recovered thus far have been “relatively inconsequential in both historical and monetary value” (Nutting 2000a:1). Nutting also informed HPO that the artifacts from the 1999 field season were moved to Bellevue, Washington but one of the artifact containers arrived broken and leaked water (Nutting 2000c:1). Davis believed that many artifacts were “in poor shape and in immediate need of professional conservation” (Russell 2000:1).

By April 19, 2000, Reedy and Davis were replaced by Koski-Karell and archaeologist Roger Dooley. During the field season, IOTA continued removing rubble while minimizing damage to the coral reef and marine environment (Nutting 2000b). In a progress report, Harbeston shared that they “recovered literally thousands of artifacts [including ivory triptychs], ranging in size from glass trading beads to 3-foot sections of wood from the ship” (Harbeston 2000a:2). In July, IOTA was required to stop excavation for the coral spawning season, even



though Harbeston believed this requirement had no scientific basis (Harbeston 2000b). IOTA continued excavations until October and recovered items such as porcelain sherds, glass beads, gemstones, and copper artifacts. Their goal was to “find the sterncastle, which is where the most valuable items were stored, including the gold coins and bullion which comprised the King’s tax revenue from Manila for 1599” (Harbeston 2000c:1; Harbeston 2001a).

In May 2001, IOTA resumed operations and used jack hammers and chippers to find and recover artifacts (Koski-Karell 2005; Harbeston 2001b). In addition to finding ceramics, beads, and *clavos*, IOTA recovered gemstones, sword scabbard fittings, and “abundant wood fragments, possibly from shipping boxes or the ship’s structure” (HPO 2002; Koski-Karell 2005). In 2003, Mauro Alvarez from the National Museum of the Philippines replaced Dooley as the field archaeologist and conservator. IOTA recovered 343 pieces of carved ivory, which may be “earliest known [and rare] examples of the fusion of European and Oriental art in the form of carved ivory” (Harbeston 2003:3). In 2004, IOTA recovered items such as bronze sword hangers, stringing line, and gold beads. During this season, IOTA found that artifacts lay beneath six to twelve feet of coral rubble (Cabrera and Joseph 2005; Koski-Karell 2005).

In 2005, IOTA requested to use heavy equipment such as jackhammers, an excavator and a crane to quickly remove the coral overgrowth and access the artifacts, otherwise “the project could not be finished for many years, if ever” (Nutting 2005:1). In addition to this request, IOTA wanted DEQ to lift the restriction that prevented IOTA from working during the coral spawning period (Nutting 2005:1). DEQ agreed to waive the restrictions, allowing IOTA to use hand tools during the coral spawning period (Nutting 2005b; Fuller 2007:8).

In 2006, IOTA received a modified USACOE permit and an amended WQC to continue excavation. Under these permits, IOTA was approved to build an excavator platform across the

reef using moveable wooden mats. In late August and early September, instead of solely using wooden mats, IOTA illegally constructed 78 one-ton concrete slabs on top of a wooden platform for a 51-ton excavator to run across the reef. Unfortunately, the concrete platform, which also did not avoid living corals, turned into rubble immediately upon use. IOTA then drove the excavator directly over reef. These violations led to the shutdown of IOTA's work for less than 24 hours (Fuller 2007). In a September 5 letter, Harbeston rationalized that a concrete roadway created less environmental impacts than constantly moving wooden platforms. Harbeston (2006a:2) added,

we do not believe concrete is harmful to the reef...It is composed of the same material as the reef itself: coral aggregate and limestone. Within a week, the concrete pieces were covered with a growth of green algae. Small fish were observed feeding on the green algae and making homes in the concrete rubble.

For the remainder of the season, IOTA worked to clean up the rubble (Harbeston 2006b). In October, CNMI agencies filed an administrative order against IOTA, requiring IOTA to submit a plan to survey damages, hire an independent team to conduct the survey, and to submit plans to repair or mitigate damages (Deposa 2006; HPO 2006; Fuller 2007:6). IOTA failed to comply with these requirements but submitted an annual report stating there was no progress in field work (IOTA 2006). In January 2007, CNMI agencies prepared a joint scientific report on the environmental damages of the concrete platform without a response from IOTA. During the 2007 field season, IOTA did not conduct excavations. By December 31, 2007, their permits expired (Fuller 2007:6). In 2008, IOTA submitted another plan which was reviewed by HPO

(Koski-Karell 2008a; 2008b). While Harbeston submitted a report for the 2008 season, it is not available in the HPO archives, therefore little is known about the 2008 season (Harbeston 2008). It is presumed that all artifacts remain in IOTA's possession (James Pruitt 2020, pers. comm.).

During McKinnon and Raupp's 2009 investigation in Rota, several artifacts including *clavos* and a silver coin from the time period of *Santa Margarita* were located and photographed in a Cave Museum in Rota (FIGURE 5.2). In addition, they noted that coral hung from the trees, like how the Chamorro people previously used gold from the shipwreck to decorate the trees. McKinnon and Raupp argue that more investigations, archaeological surveys, and excavations are necessary to learn more about the ship and its remains (McKinnon 2017).



FIGURE 5.2. At the Cave Museum in Rota, there are *clavos* with decorative nailheads from the time period of *Santa Margarita* (Image by Jennifer McKinnon, 2009).

In 2011, there were renewed discussions about the concerns of IOTA's project, but the project was ultimately not pursued. CNMI agencies cited that while IOTA had difficulty meeting regulatory and legal requirement of the project, they wanted to fulfill their obligations under the salvage and survey lease agreement to finish to operations (Fuller 2011). Still, the project was not resumed. In 2013, Marjorie Trusted, a curator at Victoria and Albert Museum in the United

Kingdom, published her research on ivory figurines from *Santa Margarita*. She compared the ivory sculptures found from the shipwreck to other ivory sculptures held in the collections of the Victoria and Albert Museum (Trusted 2013). In 2016, Koski-Karell sent another letter of interest to HPO, stating previous excavations did not have “any adverse effects to this historic cultural resource” (Koski-Karell 2016:1). As of 2020, CNMI agencies and IOTA have not continued the project. While IOTA attempted to clean up the rubble from the concrete platform failure in 2006, the company did not conduct further fieldwork.

Since IOTA’s salvage project, there has not been other documented salvage activities on *Santa Margarita*, possibly due to local interventions. In 2006, Harbeston noted that there was a high number of shark sightings during the season, with a black tip shark exhibiting hostile behavior (Harbeston 2006b). During their investigations, McKinnon and Raupp noted that locals dump their fish cleaning refuse in the shipwreck site to attract sharks and ward off treasure hunters (McKinnon 2017).

### *Concepción*

Like *Santa Margarita*, *Concepción* experienced salvage after its wrecking in 1638. Immediately after, Chamorro and Spanish people looted and salvaged items from *Concepción*, as documented in historical accounts. In a 1668 Jesuit narrative of the missionization process, Brother Marcelo Ansaldo noted that many people possessed “little golden chains, many images made of ivory, such as holy crucifixes and others” (Lévesque 1995:483). Chamorro people exchanged these items for iron, which they converted into hatchets for cutting wood (Lévesque 1995:483). In 1669, Coomans noted that *Concepción’s* “remains can be seen even now in the houses, with the guns and anchors on the beach” (Coomans 2000:21). In 1669, the Spanish found a cannon from *Concepción* and used it in a tower in Guam for fortifications against uprisings

during the Spanish-Chamorro Wars (de la Corte 1875:32). Along with the cannon, they also used a field piece during the wars (Lévesque 1995:596). In 1671, some pieces of artillery were still seen at sea (MARC 1671b).

Between 1678 and 1680, the Spanish attempted to salvage artillery pieces but were unsuccessful (MARC 1679; Ibáñez y García 1992:150). In February 1684, during Quiroga's expedition in Saipan, Spaniards recovered 24 guns from *Concepción* to send back to Guam. These cannons, however, were lost when the ships carrying them were attacked and burned in Tinian (Russell 1998:307-308). In 1704, Don Domingo de Zabalburu requested to salvage the bronze cannons, which was eventually approved by the office of King Phillip V in 1705 (MARC 1705a;1705b). Shortly, de Zabalburu successfully removed 4 cannon which were then sent to the Philippines in exchange for lesser caliber pieces to be used for defenses in the Marianas (MARC 1708b). By 1707, Spaniards removed eight anchors, and 13 more bronze pieces of artillery. The artillery included 12-, 14-, and 18-pound caliber cannon. The 13 cannon were sent to the Philippines. In total, archival documents reveal evidence that Spaniards recovered at least 17 cannon and 8 anchors from *Concepción* (MARC 1707a;1707b;1708a;1708b; National Archives of the Philippines [NAP] 1714).

In the 1980s, treasure hunters relocated *Concepción* based on historical documents and porcelain that washed onto Agingan beach. In 1985, commercial salvage company PSR was established to conduct an "archaeological recovery" of Spanish galleons (Mathers et al. 1990:553). In 1987, PSR obtained a permit to salvage and conduct fieldwork on the shipwreck under contract #CO18048 (PSR 1988a). Between March 1987 and July 1988, PSR spent two field seasons collecting data and excavating artifacts from the shipwreck. In 1990, PSR published a 560-page report, which detailed their artifact findings and procedures (Mathers et al.

1990; McKinnon 2017). Over 1,300 pieces of gold jewelry, and over 150 intact storage jars were recovered. Other artifacts identified include: an anchor, ship's structure, glass beads, lead and iron shot, lead sheathing, furniture fittings, porcelain, cannon parts, wood, hemp, resin, and personal items (Mathers et al. 1990).

Eventually, the *Concepción* collection was auctioned through Christie's to a Japanese company called Apex Corporation for approximately \$5 million. The CNMI government received 25% of the \$5 million, which was then used by the HPO to construct the NMI Museum of History and Culture. Afterwards, Apex Corporation struggled financially and sold the *Concepción* collection to the NMI Museum for \$1 million. While the NMI Museum has struggled financially and has undergone renovations, the *Concepción* collection remains at the museum (McKinnon 2017).

In September 1992, local beachcomber and puka shell collector Doug Rankin was issued a one-year contract (C68144-1) by the CNMI to search and recover artifacts from Agingan Beach after being inspired to preserve the artifacts he found during his visits to the beach (Rankin 1993). The contract between CNMI and Rankin stipulated that Rankin turn over all *Concepción*-era artifacts found in return for compensation at the rate of 50% the appraised value of the artifacts collected. Requirements included submitting biweekly progress reports and artifacts on a biweekly basis (HPO 1992). Rankin's findings included porcelain sherds, earthenware sherds, coins, chain, iron spikes, musket shots, and small gold jewelry items. While he was surveying the beach, Rankin noted locals, including three schoolteachers from Guam, collecting artifacts. Rankin explained to them the laws regarding these activities (Rankin 1992; Russell 1993). All artifact locations were recorded onto a detailed map (Rankin 1993). On two occasions, Rankin turned artifacts into CNMI for profit. On April 26, 1993, CNMI paid Rankin

\$1,362.08 for gold artifacts, and on September 21, 1993, CNMI paid Rankin \$1,360 for silver, gold, ceramic, and metal artifacts (Cruz 1993; HPO 1993b). These artifacts are now held at the NMI Museum (Scott Russell 2019, pers. comm.). While Rankin's contract was in effect, IOTA requested a contract to work in the CNMI. They obtained their salvage and survey lease agreement on April 12, 1993 but waited to work in Agingan beach until Rankin's contract ended (Fleming 1993). At the end of Rankin's contract in late 1993, Rankin did not meet contract obligations such as providing consistent biweekly reports and information about the artifacts (Fleming 1994b). The failure to follow the contract prevented Rankin from being granted another contract. Instead, HPO allowed IOTA to conduct work on *Concepción*. Rankin, upset with IOTA's project, "felt like he was being treated in an unfair manner and did not want to turn in the final contract deliverables" (Fleming 1994a:1). Eventually, after HPO explained his contractual obligations, Rankin provided the map with the location of artifact finds but it is not readily available (Fleming 1994a).

In 1994, IOTA observed two men in the water using a metal detector to search for artifacts. As a result, the Governor Froilan C. Tenorio instructed HPO to conduct routine patrols. Yet, HPO did not have the personnel or resources to do so. Instead, HPO offered to place signs to prevent illegal artifact collecting (Borja 1994).

In January 1995, IOTA conducted a reconnaissance survey of Agingan beach for *Concepción* artifacts (Russell 1995). According to Proa, for three years, IOTA conducted metal detector surveys over Agingan beach (HPO 1996b). In a January 1995 progress update, Harbeston noted that they recovered, catalogued, and recorded artifacts on a site map. Harbeston wrote that there was a reconnaissance report, but it is not readily available. Rather than pursuing

a simultaneous project on *Concepción*, they focused on their *Santa Margarita* project (Deleon Guerrero 1995e).

Rankin eventually collaborated with Ben Scales and formed Proa. On the basis that Proa did not infringe upon IOTA's exclusive rights to Agingan beach, CNMI gave Proa a contract to work the site from 1998 to 2002 (HPO 1996b). They conducted an extended Phase I survey of Agingan Beach, which resulted in a report (Scales and Rankin 2002; McKinnon 2017).

Aside from salvage company activities, there were other incidents of salvage. In the 1980s, a cannon possibly from *Concepción* was found during construction of the original Hotel Nikko, which is now Kensington Hotel, in San Roque, Saipan (Perez 2016). The cascabel was cut off by construction workers and never recovered. After learning that the construction workers intended to sell the cannon for scrap, a concerned citizen turned over the cannon to HPO (Scott Russell 2019, pers. comm.). The cannon is now displayed at the NMI Museum of History and Culture (FIGURE 5.3).



FIGURE 5.3. Cannon recovered during the construction of the original Hotel Nikko in the 1980s (Image by author, 2019).

In 2005, HPO acquired a collection of artifacts that were illegally removed by two teachers who used SCUBA diving and a boat to search for remains outside the reef. The artifacts



recovered by the teachers are at the NMI Museum of History and Culture. Russell (2019, pers. comm.) stated that it is possible that others may have participated in similar activities, and that HPO “does not have the manpower [sic] to keep a constant watch over this area.” In 2011, 146 gold artifacts and an assortment of stones, totaling 406 grams, were recovered by CNMI police after finding them at a local pawn shop following a burglary of a local teacher’s house. The teacher and his partner previously applied for but did not receive a permit to collect artifacts. These artifacts were suspected to have been collected in late 2006 or early 2007 and were turned over to the NMI Museum of History and Culture (HPO 2011:1).

During the researcher’s 2019 fieldwork, it was discovered that *Concepción* artifacts are still in locals’ possessions. During a visit to Agingan beach, the researcher encountered one local combing the beach for shells. The local stated that he recovered porcelain, ceramics, artifacts, musket balls, and even a Spanish real coin. These items were in his possession, and not turned over to HPO. The local ignored email contact to allow the viewing of the artifacts. One hotel, the Pacific Islanders Club (PIC) in Susupe, Saipan, was also previously in possession of intact blue and white ceramics. According to Fred Camacho (2019, pers. comm.), these were on display at the hotel’s lobby. PIC transferred these ceramics to the NMI Museum of History and Culture for safekeeping during the Super Typhoon Yutu which hit the Marianas Islands in late October 2018. PIC has since asked for them back, but the museum has not returned them. HPO is also in possession of some *Concepción* artifacts, including a fishing hook possibly shaped from a nail from *Concepción*. The fishing hook was found by an octopus farmer on the reef flats at Coral Ocean Point in Agingan beach (FIGURE 5.4) (Lucas Simonds 2019, pers. comm.). Outside of the HPO building, there is also an anchor from *Concepción*, which was recovered by PSR (FIGURE 5.5). While some artifacts have been collected and recovered, porcelain sherds can still

be found on Agingan beach and in the reef (FIGURE 5.6). Current HPO archaeologist James Pruitt noted that there are still intact and broken storage jar fragments in the reef (FIGURE 5.7) (James Pruitt 2019, pers. comm.).



FIGURE 5.4. Fishing hook found by an octopus farmer in the reef flats off Agingan beach (Image by author, 2019).

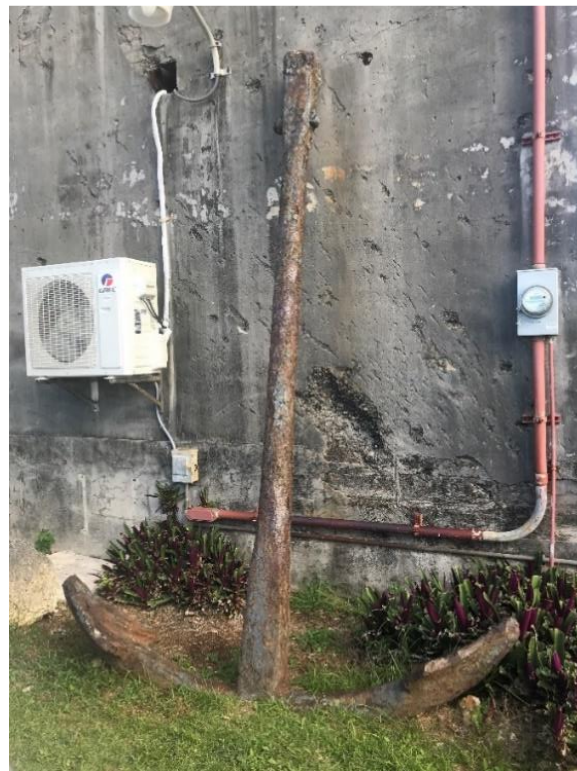


FIGURE 5.5. Anchor located outside HPO in Saipan (Image by author, 2019).



FIGURE 5.6. Porcelain fragments still present at Agingan beach today (Image by author, 2019).

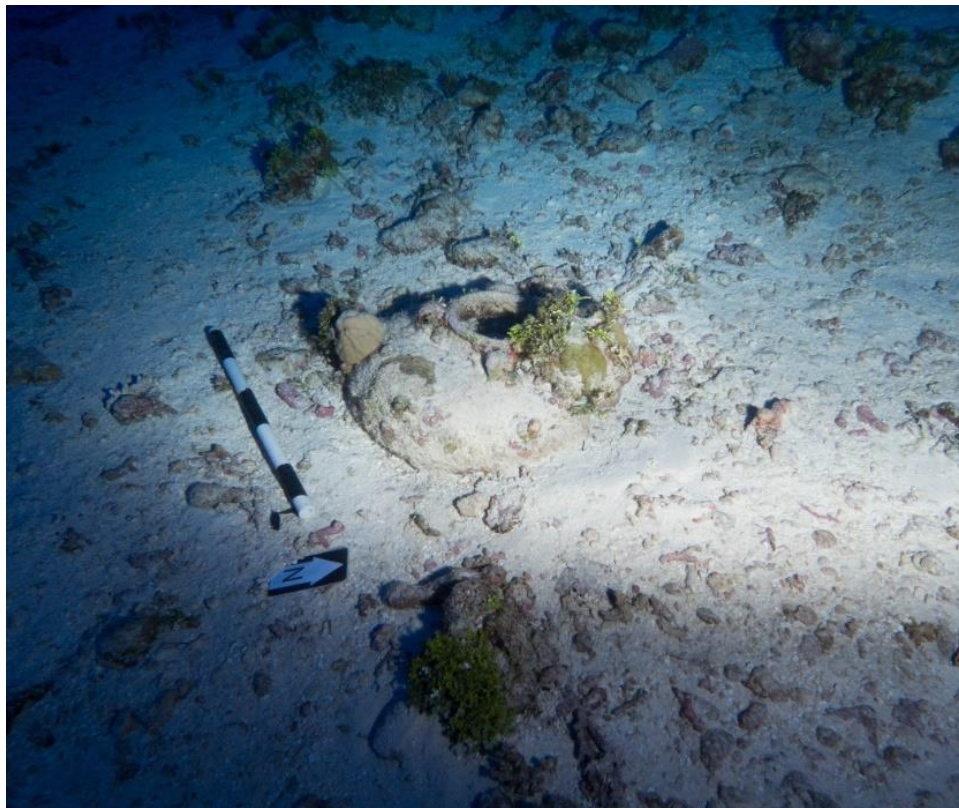


FIGURE 5.7. Storage jar remains (Image by James Pruitt, CNMI HPO, 2019).

Today, the NMI Museum of History and Culture houses many *Concepción* artifacts, including those recovered from PSR's and Proa's projects (Scott Russell 2019, pers. comm.). In 2002, a newspaper article noted that the *Concepción* collection was in the museum, however, the NMI Museum lacked funding to properly operate. More funding was necessary to build a curatorial facility to work on artifacts and improve the museum (Dones 2002). Between 2002 and 2017, the state of the museum deteriorated. Over time, as the museum collected more artifacts, they ran out of space to properly store them. Some artifacts were stored in office spaces, rather than a proper storage facility. In addition to the lack of space, the museum also developed other pressing problems. During this time, the museum's roof was leaking, and the plumbing needed to be repaired. As a result, some damage to paintings was noted. To protect them, the museum removed paintings and photographs from the walls. Because leaks and puddles created safety hazards, the museum needed to be closed until the roof was fixed. The museum's next plan was to repair the building, receive more funding and reopen (Island Culture Archival Support 2017). In 2018, with newly appointed Director Danny Aquino and financial support, the museum underwent renovations. During the researcher's 2018 field visit to Saipan, the museum held a soft opening. Many artifacts were on display including silver Spanish coins, metal artifacts, blue and white ceramics, storage jars, and lead musket balls. No gold artifacts were on display. In regards to the location of the gold artifacts, Aquino stated in a Humanities Half Hour podcast, "I wanted to also put to rest this rumor floating around by a certain conspiracy theorist that the gold and everything that was there at the museum is there when I got there and is still there" (Stefy 2017). Additionally, a confidential source notes a rumor exists that the FBI raids conducted in the fall of 2019 that the governor and his family may be in possession of the gold artifacts. Attempts to access the undigitized artifact catalogue were unsuccessful.

To date, there has not been any archaeological excavations or surveys on the shipwreck. Based on the distribution of the artifacts and the ballast, there may not be any structure left. Investigations into *Concepción* are limited due to its location in a high-energy, and deep channel with strong currents (McKinnon 2017).

*Textual Analysis*

*Santa Margarita Ethics*

The salvage projects on *Santa Margarita* were analyzed to determine how their activities compared to common archaeological ethics shared by professional archaeological associations SHA, ACUA, and RPA (TABLE 5.1). The ethical principles include: no commercial exploitation, having archaeologists with appropriate qualifications and training to conduct work, disseminating research and results, preserving, conserving, and managing artifacts, and conducting public outreach and education.

TABLE 5.1. Ethical analysis of salvage projects on *Santa Margarita*.

<b>Ethical Principles</b>	<b>PSR</b>	<b>IOTA</b>	<b>Total</b>
Against commercial exploitation and illegal activities	No	No	0%
Appropriate qualifications and training to conduct work	Undetermined	No	50%
Dissemination of research and results	Yes	Yes	100%
Preservation, conservation and management	Undetermined	Yes	50%
Public outreach, education	Yes	No	50%
Total (YES)	40%	40%	

Two systematic salvage companies, PSR and IOTA, conducted projects on *Santa Margarita*. During their 1987 inspection visit to Rota, PSR conducted surveys and recovered some artifacts for research, but did not participate in illegal activities. They did, however, assess *Santa Margarita* based on commercial viability, and thus, participated in the commercial exploitation of the artifacts. There is limited information on these artifacts' current location. While in Rota, PSR established working relationships with local CNMI officials and residents as

part of their public outreach. During their project, PSR collected glass beads and copper alloy objects. According to their report, PSR aimed to determine the identity, origin, and function of the collected artifacts. Nevertheless, there is no evidence of conservation undertaken on the artifacts. PSR disseminated their research and results in a 1987 report to HPO, but it is not available in public databases. Unfortunately, there is no information regarding who led the project, who participated in the surveys, and who wrote the report (PSR 1987b:3). It is possible that there was more information in files lost during the November 1992 office fire (Deleon Guerrero 1995b).

According to the analysis, PSR met two of five ethical principles: dissemination of research and results and public outreach and education by sharing a report and establishing relationships with CNMI residents. PSR displayed interest in the commercial exploitation of the artifacts but did not participate in illegal activities. There is limited or no information on the two ethical principles of having participants with appropriate qualifications and training, and preservation, conservation, and management.

In comparison, IOTA only met two of five ethical principles. IOTA's major ethical violation was committing illegal activities and planning to commit commercial exploitation of artifacts. While Harbeston noted numerous times that the project will be conducted "using the best practical archaeological methods," there were many documented instances when IOTA committed illegal acts against permits and plans (Harbeston 1995b; Deleon Guerrero 1996f). The first example was in December 1995, when IOTA was observed illegally salvaging areas without an approved permit and plan (Deleon Guerrero 1995a). The second example was in 1996 when IOTA replaced archaeologist Rule as the supervisor of the artifact recovery with the diving supervisor, who was not trained in archaeology. Another major instance when IOTA violated

their permits occurred in 1999 when IOTA used heavy equipment to crush and move boulders, which was more destructive than what was agreed upon in their permits (Klima 1999). The last flagrant violation occurred in the fall of 2006. IOTA constructed a platform using 78 one-ton concrete slabs and drove a 51-ton excavator over the reef without avoiding live coral. These actions violated their permits as CNMI agencies required IOTA to minimize impact on the marine environment by avoiding live coral and by only using a wooden platform (Fuller 2007). This last violation strengthened the animosity between IOTA and CNMI (HPO 2006). While IOTA has since attempted to finish work on *Santa Margarita*, they have not worked on the site since 2006.

From the start, IOTA originally planned to participate in commercial exploitation of artifacts. In their marine survey and salvage lease agreement, IOTA aimed to sell artifacts to auction houses for profit. IOTA was to receive 75% of the profits while CNMI was to receive 25% of the profits (HPO 1993c). Their plans and actions reflected their desires to publicize commercially valuable goods and to make profits. For example, their 1996 plan had an “inordinate degree of emphasis on gold as a marketable commodity in the plan. This is inappropriate since the focus should be on the artifacts and other cultural significance of the gold. The emphasis casts an aura of the document serving as a market brochure” (Streck 1996:2). In 1996, IOTA investors also pushed Harbeston to conduct salvage operations and find gold faster than the rate accepted by archaeologists, who eventually all resigned due to IOTA management and unsafe and improper working conditions (HPO 1996a). In the next field season, in 1998, IOTA also instructed archaeologists Davis and Reedy to conduct excavation work “as rapidly as possible, with little attention to archaeological concerns. Harbeston advised Davis that only commercially valuable artifacts will be collected. Those artifacts that IOTA determines

have no commercial value are to be left in the water” (Russell 2000:1). It is unknown where all artifacts are located and if they were sold. It is presumed that IOTA maintains possession of all artifacts, with artifacts recovered before the 2000 field season stored in IOTA’s commercial storage facility in Bellevue, Washington since they moved them there in 2000 (Nutting 2000c; James Pruitt 2020, pers. comm.)

For the second ethical principle, IOTA hired qualified senior archaeologists who met the Secretary of the Interior’s Standards for Archaeologists. IOTA’s 1994 survey was led by archaeologists Frank Rackerby and Basil C. Hedrick, who both had graduate degrees and experience in history and archaeology (IOTA 1994:3). In 1996, IOTA hired Margaret Rule, who had extensive experience as an archaeological director for projects on shipwrecks such as *Mary Rose*. When Rule resigned in 1996, she was replaced by Daniel Koski-Karell, who had almost three decades of experience in archaeology and was certified as a field archaeologist by the Society of Professional Archaeologists (Koski-Karell 2000). In 1999, James Reedy and Stan Davis replaced Koski-Karell. Reedy had a graduate degree in Maritime History and Underwater Research from ECU and had at least 20 years of experience in maritime archaeology, while Davis had a PhD in archaeology from Texas A&M University (Reedy 1999; Davis 1999). When Reedy and David resigned after concerns with IOTA’s archaeological work in 2000, Roger Dooley and Koski-Karell took over. Dooley had a graduate degree in archaeology as well as at least 30 years of experience in underwater archaeology. Dooley remained a field archaeologist until 2002. In 2003, Mauro Alvarez joined the archaeology team with a specialty in conservation and at least a decade of experience in archaeology (Alvarez 2003). While these senior archaeologists were deemed as qualified, there is evidence that excavations were not exclusively controlled by them. For example, in 1996, the control of archaeological- procedures went to the



director of diving operations William Spurlock (Deleon Guerrero 1996d). As previously stated, in 1999, divers were instructed to only collect commercially valuable items by Harbeston (Russell 2000:1). One archaeologist who was being recruited by IOTA but refused to sign on stated that he “got the distinct impression that Harbeston wanted an archaeological front man rather than the services of an archaeologist” (Russell 1999a:1). While senior archaeologists were qualified, the working divers did not have the appropriate qualifications and training to conduct excavation.

While IOTA has already failed to meet the first two ethical principles, IOTA did disseminate their results in a press release and reports. In 1993, they were in the process of preparing a video to advertise their work, but it is not readily available (HPO 1993a). In 1995, they announced in a press release that they relocated *Santa Margarita's* remains. IOTA published annual reports for 1994, 1996, 1999, 2004, 2005, and 2006 that are available at the HPO archives. There appears to be a 1995 and a 2008 annual report published but were not located at the HPO archives. In 2013, Marjorie Trusted of Victoria and Albert Museum examined the ivory sculptures and compared them to other ivory sculptures found in the Victoria and Albert Museum. Trusted concluded that the ivory sculptures were influenced by other areas such as Italy, China, and Europe, and were being exported from the Philippines to Mexico and Europe for devotional purposes (Trusted 2013). Trusted's article is the only published academic article on IOTA's project. There is no published academic information regarding any other IOTA findings. On IOTA's website, there are excavation photos and information regarding their excavation posted (IOTA 2016).

During their project, IOTA worked to preserve and conserve artifacts but encountered issues. For example, they set up conservation facilities in Song Song village and kept inventories

of the artifacts by name, weight, and total finds. Artifacts were conserved in a desalination process by type (IOTA 1996a). In 1999, however, IOTA's property in Rota were not secured and thieves broke into artifact containers and stole equipment and property (Harbeston 1999c). In 2000 when the artifacts were transferred to Washington, one of the freshwater storage tanks broke and leaked its water. According to IOTA, Koski-Karell planned to monitor the storage facility regularly to check the artifacts (Nutting 2000c).

While IOTA was able to conserve artifacts, IOTA was less successful at conducting public outreach and educational activities. They did not have many locals participate in the projects and limited media coverage for safety and security. These actions ultimately limited public participation in their project (Gourley 1996b; Fuller 2007). Furthermore, IOTA only released a press release that announced their rediscovery of *Santa Margarita*. In a 1995 newspaper article, Ben Scales of Proa, criticized IOTA's press release as it seemed like IOTA was only attempting to encourage excitement and investors to participate in the project (Scales 1995). A news article on *Santa Margarita* highlighted IOTA's failed concrete platform in November 11, 2006 (Deposa 2006). In October 2007, IOTA showed journalist Molly Shen in Bellevue, Washington their vault of *Santa Margarita* artifacts, which included porcelain, ivory, and gemstones. Shen (2007) published an online article to YouNewsTV highlighting the commercial and historical value of these artifacts. Aside from their press release and Shen's article, IOTA did not participate in public outreach or academic education regarding their project on *Santa Margarita*.

In summary, IOTA met only two of five ethical principles: dissemination of research and results, and conservation of artifacts. Yet, these principles were not confidently and consistently met. IOTA has only published on the ivory artifacts recovered, and not on any other information.

In addition, while IOTA conserved artifacts during their project, there is limited information on the preservation and management of these artifacts. Despite this, IOTA failed to meet the three other ethical principles. IOTA committed many illegal acts and consistently participated in commercial exploitation of artifacts collected. While IOTA did hire senior archaeologists with appropriate qualifications and training, they were not the ones leading or conducting the excavation work. Instead, untrained divers in unsafe working conditions were. Finally, IOTA limited media coverage and public participation during their project, therefore, did not participate in public outreach or education about the site.

#### *Santa Margarita Reports*

Available reports by PSR and IOTA were analyzed to determine how they compare to standard archaeological categories (TABLE 5.2). During IOTA's work between 1994 and 2008, a total of nine annual reports were written by IOTA. HPO possessed seven out of nine reports, with missing reports from 1995 and 2008. Reports on and after 1996 were required to have six sections as per their contracts: progress in fieldwork, progress in conservation of recovered materials, progress in analysis of results, progress in preparation of final report, any problems or unexpected issues encountered during the year, and any changes that the USACOE or IOTA Partners believed should be made in implementation of this MOA (Hihara-Endo 1996). Because of this contractual obligation, reports were either organized by these sections or not in distinct standard archaeological categories. Nevertheless, the reports were analyzed for presence or absence of information that would have belonged to specific categories.

In 1987, PSR shared a preliminary report on their June inspection of Santa Margarita (PSR 1987b). Within the historical summary, PSR provides discussions on site orientation,

TABLE 5.2. Textual analysis of salvage reports on *Santa Margarita*.

<b>Standard Archaeological Categories</b>	<b>PSR 1987</b>	<b>IOTA 1994</b>	<b>IOTA 1996</b>	<b>IOTA 1999</b>	<b>IOTA 2002</b>	<b>IOTA 2004</b>	<b>IOTA 2005</b>	<b>IOTA 2006</b>	<b>Total</b>
Title Page	Yes	No	Yes	Yes	Yes	Yes	Yes	No	75%
Table of Contents, Figure Lists, Table Lists	No	No	Yes	Yes	No	No	Yes	No	37.5%
Introduction	Yes	Yes	No	Yes	Yes	Yes	Yes	No	75%
Site Orientation and Location	Yes	Yes	Yes	No	Yes	Yes	Yes	No	75%
Physical Environment	No	No	Yes	No	Yes	Yes	Yes	No	50%
Site Formation Processes	Yes	No	Yes	No	No	Yes	Yes	No	50%
Methodology	Yes	Yes	Yes	Yes	Yes	Yes	No	No	75%
Results	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	100%
Interpretations	Yes	Yes	Yes	Yes	No	No	Yes	N/A	62.5%
Recommendations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	87.5%
Summary/Conclusion	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	87.5%
Site Map	Yes	No	Yes	No	No	No	Yes	No	37.5%
Scaled Photos, North Arrows	No	No	Yes	Yes	No	No	Yes	No	37.5%
Sources for Maps/Historical Photos	N/A	N/A	N/A	N/A	No	No	No	No	0%
Artifact Counts or Artifact Measurements	No	No	Yes	No	Yes	Yes	Yes	N/A	50%
Bibliography/References Cited	No	Yes	Yes	No	No	No	No	No	25%
Appendix	Yes	No	Yes	Yes	Yes	No	Yes	Yes	75%
<b>Total (YES)</b>	<b>64.7%</b>	<b>47.1%</b>	<b>88.2%</b>	<b>47.1%</b>	<b>58.8%</b>	<b>58.8%</b>	<b>82.4%</b>	<b>16.7%</b>	

location, and site formation processes. Under the field operations section, PSR discusses their survey methods, including towed swims, swimline searches, compass swims, drift dives, and limited area surveys. The report provides a results section, where PSR discusses the environmental conditions in the area. They interpret that Santa Margarita's remains lay underneath heavy coral. Therefore, PSR recommended and concluded that unique equipment and methods were required for successful conduct excavation. The appendix notes there are attached figures including a site drawing and artifact illustrations. In HPO's report copy, the site map is missing, and there are only artifact drawings of copper alloy fragments. One page of artifact illustrations has a scale, and the second page does not have a scale. In total, PSR's report contained 11 out of 17 categories (64.7%).

IOTA continued their reconnaissance survey in 1995, but there is no readily available report of the project. The next report analyzed was the 1996 report. It contained all six sections required by IOTA's contracts. The report contained a thorough discussion and interpretation of all types of artifacts found. In the last section of the report, they provide an assessment or summary of their work, as well as recommendations for future work (IOTA 1996b). In total, IOTA's 1996 report included 15 out of 17 categories (88.2%).

IOTA did not conduct fieldwork operations in 1997 and 1998, therefore there were no official reports for these years. Because IOTA was five months late in providing their 1998 report and fulfilling their contractual obligation, Deleon Guerrero only requested an unofficial report. Harbeston provided a progress report on permit applications and conservation activities for 1998 (Deleon Guerrero 1999a; Harbeston 1999a). In 1999, IOTA resumed work and provided an annual report. The report had all six sections required by IOTA's contracts. In the results section, they note that providing conclusions would be premature, therefore they do not

include any. The appendix contains an outline for their final report after the project ends (IOTA 1999b). In total, IOTA's 1999 report included 8 out of 17 categories (47.1%).

While IOTA conducted work in 2000, they did not publish an annual report. Instead, Deleon Guerrero requested information regarding the artifacts and conservation techniques and facilities. The 2001 or 2003 reports were also not available at HPO archives. Information about the 2000, 2001, and 2003 field seasons may be found in Koski-Karell's (2005) annual report.

The next available report found at HPO was the 2002 annual report written by Koski Karell. The report was not organized by the six sections as per IOTA's contracts. The conclusion and methodology sections only stated basic information. For example, IOTA concluded that the survey area consisted of remains from *Santa Margarita*, and that there were larger, more frequent, and better-preserved artifacts in the 2002 survey area. The results or conclusions did not have interpretations about the artifacts or site. In the methodology section, IOTA states that Dooley conducted a magnetometer survey using a hand-held magnetometer, and that excavation was conducted in a 20-meter by 20-meter section but there were no specifics regarding excavation logistics and conservation. Their appendix also consisted of artifact photos without scales (Koski-Karell 2002). In total, IOTA's 2002 report included 10 out of 17 categories (58.8%).

The next report analyzed is IOTA's 2004 annual report written by Koski-Karell. The report was not organized by the six sections as per IOTA's contracts. The report is organized by the introduction, summary of previous work which includes a site orientation and a description of the physical environment, summary of 2004 fieldwork, typhoon effects which included a brief discussion of site formation processes, results, artifact count, conclusion, and recommendations. The summary of 2004 field work contained basic information about the methods used. For

example, Koski-Karell only stated that IOTA dredged with 4-inch water-injection dredges and hand tools without discussing other specifics of excavation and conservation. In addition, the 2004 report conclusion, which was very similar to the 2002 report conclusion, stated that the survey area consisted of remains from *Santa Margarita*, and that there were larger, more frequent, and better-preserved artifacts in the survey area. The results or conclusions did not have site or artifact interpretations. Koski-Karell noted “the most impressive recoveries during 2004 consisted of an ivory religious art figurine of the Holy Child and a gold bead” but did not offer explanations or interpretations (Koski-Karell 2004:31). HPO criticized that the conclusion “provides little to no information about the shipwreck as a whole” (Cabrera and Joseph 2005:6; Koski-Karell 2004). In total, IOTA’s 2004 report included 10 out of 17 categories (58.8%).

In 2005, Koski-Karell prepared the annual IOTA report. The report was not organized by the six sections as per IOTA’s contracts. The report is organized by the introduction, summary of previous work which includes a site orientation and a description of the physical environment, summary of 2005 fieldwork, results, artifact count, conclusion, and recommendations. There was no discussion on methodologies used during the season, but there was an extensive discussion on a failed plan to use an excavator and barge. Accompanying the discussion was a recommendation to use heavy equipment for the following year’s fieldwork. Like the 2002 and 2004 report, the conclusion notes that there were *Santa Margarita* remains in the 2005 survey area, and that remains recovered were more frequent and better preserved than remains recovered in previous field seasons. They provide a basic interpretation that the survey area has densely concentrated artifacts. The appendix includes a plan map for excavation, and two scaled photos of “INRI” plaques (Koski-Karell 2005). In total, IOTA’s 2005 report included 14 out of 17 categories (82.4%).

The final available report is from the 2006 field season (Harbeston 2006c). It contained all six sections required by IOTA's contracts. In the report, IOTA shared the results of their 2006 project. During the season, the concrete platform failed and there was no progress and no artifacts collected. Consequently, there were no interpretations and artifact counts. There is an appendix which contained a 10-page report regarding the ivory artifacts previously found. The artifact photos attached to the appendix however do not have scales. IOTA concluded that they will continue to clean up the debris. In total, IOTA's 2006 report included only three of 17 categories (16.7%).

In 2008, IOTA shared an annual report. This report was not readily available at HPO.

To summarize, no reports included all standard archaeological categories. IOTA's 1996 report was the most comprehensive report, meeting 15 of 17 categories. Their 2005 report met 14 categories. PSR's 1987 report met 11 categories. IOTA's 2002 and 2004 reports met 10 categories, while their 1994 and 1999 report met eight categories. IOTA's final available report in 2006 only met contained three standard categories.

The categories missed by the report varied. All reports consisted of a discussion on the results of the field seasons. Seven out of eight reports consisted of recommendations and a summary or a conclusion. Six out of eight reports had title pages, introductions, site orientation or location, and methodologies. Five out of eight reports included interpretations. Half of the reports included discussions on the physical environment and site formation processes, as well as artifact counts. Three out of eight reports had a table of contents or lists, site map, and scaled photos. Only two reports contained a bibliography section, and none of the reports contained sources for maps or historical photos.



### Concepción Ethics

PSR's and Proa's salvage projects on *Concepción* were also compared to ethical principles (TABLE 5.3). The first salvage company to conduct excavations on *Concepción* was PSR, which met three out of five of the ethical principles. First, there is limited information on project archaeologists Kelly Bernard, Amanda Crowdy, and Corey Malcolm. William M. Mathers, the President and Director of PSR, did not have previous archaeological experience (Sea Salvage Ltd. 1987). The final report notes that Crowdy was a 27-year old British archaeologist, Bernard was a 28-year old American archaeologist, and Corey Malcolm was a 25-year old American archaeologist (Mathers et al. 1990:552). There was no other available information on the archaeologists' backgrounds and qualifications in PSR reports, therefore it cannot be determined if they held appropriate qualifications and training to conduct work. After PSR's project, it appears that Crowdy published on ceramics in the United Kingdom, while Bernard worked on the East Coast Shipwreck Project with Cobb Coin Inc. in Key West, Florida (Ruppé and Barstad 2002; Archaeology Data Service 2019). Today, Corey Malcolm serves as the Director of the Mel Fisher Maritime Museum in Key West, named after treasure salvor Mel Fisher (Key West Art & Historical Society 2019).

TABLE 5.3. Ethical analysis of salvage projects on *Concepción*.

<b>Ethical Principles</b>	<b>PSR</b>	<b>Proa</b>	<b>Total</b>
Against commercial exploitation and illegal activities	No	No	0%
Appropriate qualifications and training to conduct work	Undetermined	No	0%
Dissemination of research and results	Yes	No	50%
Preservation, conservation and management	Yes	No	50%
Public outreach, education	Yes	Yes	100%
Total (YES)	60%	20%	

PSR disseminated research through publications and participated in public outreach and education. In 1988, PSR also published a press release, which announced their project of *Concepción* (PSR 1988a). According to their July 1998 report, PSR participated in a four-day

public exhibition at the Commonwealth Convention Center. Marianas Variety, Pacific Daily News, and Saipan Cable TV provided media coverage on PSR's project. In their July 1988 report, PSR shared their main goal to undertake an international publicity campaign "to generate interest in an auction of project artifacts" (PSR 1988b:10). Their secondary goals were to promote the CNMI and share information about PSR. There is no mention about promoting the historical and archaeological value of *Concepción* in their final progress report (PSR 1988c). In 1988, Cathleen Moore-Linn (1988) shared an approximately 30-minute long video production covering PSR's project. The video originally aired through Guam Cable TV and is currently viewable in Moore-Linn's YouTube channel. As part of the international campaign, historian Eugene Lyon (1990) shared a 37-page *National Geographic* article entitled "Track of the Manila Galleons." In 1993, William M. Mathers and Nancy Shaw (1993) published *Treasures of the Concepción*. The video, article, and book serve to educate others about the excavation project.

During their operations, PSR conserved artifacts through set procedures in an onboard laboratory (Mathers et al. 1990:115). Artifacts were inventoried, analyzed, and interpreted. Information on the artifacts was presented in PSR's final report (Mathers et al. 1990). PSR participated in commercial exploitation of these artifacts. On May 23, 1987, Robert Kleiner of Sotheby's Ltd. appraised 291 gold artifacts, which included chains, buttons, and beads, at the value of at \$59,925.00 (PSR 1987a). In the summer of 1990, Japanese company Apex Corporation purchased the *Concepción* collection through Christie's auction house for over \$5 million dollars (Mathers et al. 1993:158). Agreements to the purchase included:

to maintain the collection as an entity, establish a purpose built museum in Saipan to house the artifacts, and donate a representative sampling of original artifacts to the

Government...the Chairman of Apex, Mr. Hajime Mori, also stated that it was his intention to donate the entire collection to the CNMI within forty years (Mathers et al. 1990:551).

The CNMI received 25% of the profits, which HPO used to build the NMI Museum of History and Culture. Eventually, Apex suffered financial difficulties and sold the collection to the CNMI for \$1 million. While the museum has undergone renovations and closures, the collection remains at the museum today (McKinnon 2017). In summary, PSR met three out of five ethical principles.

Starting in the early 1990s, Proa was the second company to conduct work on *Concepción*. Proa failed to meet four of five ethical principles during their excavations. Firstly, Proa participated in commercial exploitation of the artifacts. In Proa's 1994 contract, Rankin received 75% of the profits from artifacts sold, while CNMI received 25% of the profits (Fleming 1994b). Upon finding artifacts, Rankin sold them to HPO for profit as per their salvage contract. For example, on April 26, 1993, CNMI paid Rankin \$1,362.08 in exchange for gold artifacts (Cruz 1993:1). On September 21, 1993, Rankin received \$1,360 in exchange for artifacts recovered (HPO 1993b). Second, Rankin did not have the archaeological training or background to conduct surveys on the Agingan beach shipwreck site. In his proposal, he stated that he and his family were puka shell collectors who were interested in preserving artifacts from Agingan beach (Rankin 1991). In a letter, HPO archaeologist Michael Fleming stated, Proa "lacked the capital and expertise required of a major salvage effort" (Fleming 1994b:1).

Furthermore, there appears to be no evidence that Proa disseminated their research. They submitted a draft archaeological report in 2002, however, there is no official archaeological

report available. There is no evidence that Rankin or Proa shared their information publicly. The draft report documents that there was a tentative plan to conserve artifacts, but there is no evidence of conservation of artifacts by Proa. Nevertheless, Rankin did provide an inventory of the artifacts (Rankin 1993). The artifacts collected by Rankin were turned into HPO, and then eventually transferred to the NMI Museum of History and Culture (Scott Russell 2019, pers. comm.). Proa, therefore, was not responsible for the management of artifacts recovered. Finally, Rankin participated in some acts of public outreach and education. When he encountered locals combing Agingan beach for artifacts, he educated them about the laws regarding their illegal activities. While Rankin interacted with the public to a small degree, Proa failed to meet the four other ethical principles.

Between Proa's work on *Concepción*, IOTA conducted a reconnaissance survey. HPO did not have the report available. According to Proa, for three years, IOTA conducted metal detector surveys over Agingan beach (HPO 1996b). In a January 1995 progress update, Harbeston noted that they recovered, catalogued, and recorded artifacts on a site map during this time (Deleon Guerrero 1995e). Because this is the only available information on IOTA's reconnaissance on *Concepción*, there is insufficient data to analyze IOTA's work.

In conclusion, PSR and Proa followed some, but not all, of the standard archaeological ethical principles. PSR met three of five ethical principles while Proa only succeeded in meeting one. Both companies participated in commercial exploitation and education about their salvage projects, but neither participated in illegal activities. It was undeterminable if PSR's archaeologists had appropriate qualifications and training, but Rankin did not qualify as an archaeologist. PSR published their report and shared information about their excavation, while Proa did not. Lastly, PSR participated in conservation of the artifacts, while Proa did not.

### Concepción Reports

PSR and Proa reports were analyzed to determine how they compare to standard archaeological categories. Out of 17 standard archaeological categories, three categories were missing in the PSR report: the interpretations, recommendations, and scaled photos with north arrows. In other words, PSR met 14 categories or approximately 82% of the standard archaeological categories. While most categories were met, the information in some categories was insufficient or show bias of commercial exploitation. Even though PSR contains an artifact inventory in their report, there is incomplete information regarding the number of some artifacts. For example, PSR only lists “numerous” porcelain, stoneware, and earthenware sherds. The inventory does not have a specific number of artifacts. The PSR report also includes photos of the artifacts and has measurements of the artifacts, but not a scale on the photos themselves. In one final example, the introduction section did not include research questions or goals (Mathers et al. 1990). Instead, their main company goal appeared to be “archaeological recovery” of profitable Manila galleons (Mathers et al. 1990:1). Their bias is evident in the fact that 366 pages of 533-page report focuses on prized jewelry and porcelain, and only 27 pages on other artifacts, such as bronze, iron, and copper artifacts, ship fittings and structure, ordnance, and slingstones, which are archaeologically important but seemingly not viewed as commercially valuable.

For Proa’s report, 14 standard archaeological categories, or 82% of the total 17 categories, were present in the publication. The Proa draft report builds upon the PSR report by including an interpretation of their results. They also contain photos of artifacts with a scale, but not all the photos have a scale on them. Three standard archaeological categories, or 18%, were missing from the total 17 archaeological categories. According to the results, Proa and PSR meet the same amount of standard archaeological categories.

The results of the textual analysis show that the reports meet 82% or 14 of the 17 standard archaeological categories (TABLE 5.4). Both PSR and Proa's reports do not fully meet standard archaeological categories for reports, but they do include most of the categories. Neither salvage project provided recommendations for the site.

TABLE 5.4. Textual analysis of salvage reports on *Concepción*.

<b>Standard Archaeological Categories</b>	<b>PSR 1990</b>	<b>Proa 2002</b>	<b>Total</b>
Title Page	Yes	Yes	100%
Table of Contents, Figure Lists, Table Lists	Yes	Yes	100%
Introduction	Yes	Yes	100%
Site Orientation and Location	Yes	Yes	100%
Physical Environment	Yes	Yes	100%
Site Formation Processes	Yes	No	50%
Methodology	Yes	Yes	100%
Results	Yes	Yes	100%
Interpretations	No	Yes	50%
Recommendations	No	No	0%
Summary/Conclusion	Yes	Yes	100%
Site Map	Yes	No	50%
Scaled Photos, North Arrows	No	Yes	50%
Sources for Maps/Historical Photos	Yes	Yes	100%
Artifact Counts or Artifact Measurements	Yes	Yes	100%
Bibliography/References Cited	Yes	Yes	100%
Appendix	Yes	Yes	100%
Total (YES)	82%	82%	

### *Themes*

With the help of the previous textual analysis, three themes were identified in the different types of salvage projects. First, immediately after the shipwrecks, the remains were repurposed by Chamorro people or the Spanish. In the modern treasure salvage of the shipwrecks, two key themes were identified: commercial exploitation of artifacts and non-archaeological work.

## Theme 1: Repurpose

After the shipwrecks, Chamorro people salvaged remains including iron, nails, weapons, and gold. They repurposed items from *Santa Margarita* such as iron and nails into tools like fishing hooks, hatchets, and oil lamps (Lévesque 1995:483; Quimby 2010; McKinnon 2017). Artifacts such as gold and ivory were used for trading in exchange for iron or used for decoration. For example, in historical accounts, Chamorro people were observed to have worn gold chains and other items around their necks. These objects were also hung in trees or houses (Blair and Robertson 1962[15]:237-238; Morga 1971:184-185; Freycinet 2000:23). In addition, Chamorro people used shipwreck survivors as currency for exchange. Chamorro people treated survivors better in order to receive a repayment of iron from Spanish rescuers (Driver 1983:213; Quimby 2010:17). Lastly, the Spanish salvaged and reused artillery from the shipwrecks (PSR 1987a). Artillery from *Concepción* were used for defenses in the Marianas, while others were sent to the Philippines (MARC 1707b).

## Theme 2: Commercial exploitation

The most prevalent theme of modern salvage is the emphasis on profits from recovered artifacts. The salvage companies' actions reflected a desire to profit from *Santa Margarita* and *Concepción*. PSR identified that Manila galleons contained gold, silver, Chinese porcelain, jewelry, and other artifacts. In PSR's Agingan Beach Project Proposal, they note that their first and main goal was obtaining profits from the sale of these artifacts (Sea Salvage Ltd. 1987). Once they realized that *Santa Margarita* would not be financially viable because it had been previously salvaged, they stopped pursuing the project (Scott Russell 2019, pers. comm.). During excavations on *Concepción*, PSR worked to effectively publicize these artifacts as treasures, to the point of even naming their book as *Treasures of the Concepción* (Mathers and Shaw 1993).

PSR's (1990) final 553-page report also reflected their bias towards profiting from commercially valuable artifacts like gold and porcelain. Aside from consistently referring to gold as 'treasures,' they dedicate 366 pages to discussions and interpretations of jewelry and porcelain. On the other hand, concretions and artifacts, including iron objects, bronze and brass items, cannon balls, and sling stones, were covered in only 27 pages. There is no discussion on wooden artifacts or ship remains. Their goal to make a profit from their project was met when they auctioned the *Concepción* collection for approximately \$5 million (Mathers et al. 1993:158; McKinnon 2017). The second company to conduct work on *Concepción*, Proa, also profited from the artifacts. While Proa aimed to preserve recovered artifacts from Agingan beach, they sold artifacts, including gold and silver, to CNMI for a total of \$2,720.08 in 1993 (HPO 1993b).

PSR and Proa were not the only ones with their eyes on profit. IOTA's actions also reflected their goals in gold. In their proposal and plans, IOTA leaned towards profiting and marketing gold as valuable commodities for sale (IOTA 1995b; Streck 1996). In a 2000 letter, Steve Nutting, IOTA's lawyer at the time, also implied that recovered artifacts from the 1999 field season were "relatively inconsequential in both historical and monetary value" (Nutting 2000a). It appeared that IOTA's Nutting did not understand the historical or cultural value of all artifacts, but only valued profitable artifacts. Moreover, one of the main goals during the 2000 field season was to find the sterncastle, where valuable items may be found including gold coins and bullion (Harbeston 2000c). Because of IOTA's bias towards finding commercially valuable artifacts, IOTA archaeologists resigned from the 1996 and 1999 field seasons (HPO 1996a; Russell 2000:1). Relentless in their pursuit, IOTA employed heavy equipment such as an excavator, jackhammer, chisel, and cranes to move and smash large boulders, which was also against their permits at the time. It may be argued that their desire to find artifacts quickly led to



their demise. The installation of the concrete platform led to CNMI's great animosity towards IOTA. Throughout their project, IOTA worked tirelessly to exploit commercially valuable artifacts. Regardless of their violations, IOTA recently expressed interest in finishing their project on *Santa Margarita*. In a 2016 letter to HPO, Koski-Karell (2016) wrote,

it is my understanding that past excavation work at the *Santa Margarita* wreck site has not had any adverse effects to this historic cultural resource. It is also my understanding that the attention IOTA Partners has paid to historic preservation concerns and archaeological recordation over time has been appropriate and acceptable to the CNMI HPO. I wish to ensure that appropriate attention to historic preservation and archaeological issues continues as the project moves forward to its completion.

As of 2020, IOTA has not conducted more work on *Santa Margarita*.

### Theme 3: Non-archaeological work

There was no shortage of non-archaeological work with the salvage projects on *Santa Margarita* and *Concepción*. In addition to contributing to environmental issues, IOTA continually violated their permits by illegally scavenging and recovering artifacts, using heavy equipment and deviating from methodologies, and constructing a concrete platform. At least six IOTA archaeologists resigned or were not invited back to the project due to refusal to adhere to improper archaeological methods employed by IOTA. In addition, while IOTA's archaeologists were deemed qualified and appropriate, they were not always the ones in charge. Untrained IOTA divers were instructed to be selective about the recovery of artifacts. Additionally, Rankin conducted operations on *Concepción* without archaeological training. Because of the lack of

archaeological training of project personnel and a bias towards profit, it is possible that PSR and Proa collected more commercially valuable artifacts compared to non-commercially valuable artifacts. As a result, there may be more archaeological remains at the shipwreck sites.

Furthermore, salvage reports did not meet standard archaeological categories or consist of information contained in standard archaeological categories. For example, only half of reports on *Santa Margarita* discuss the physical environment or site formation processes. Not all reports discuss the interpretations of artifacts or sites, therefore not much is known about what the remains mean. Lastly, while reports on *Concepción* included sources and bibliographies, no report on *Santa Margarita* contained sources for maps or illustrations, and most reports did not provide a bibliography. For this reason, it would be difficult to trace original sources that discuss *Santa Margarita*.

Even if reports included some information for the categories, the data was often incomplete or basic. For example, while there was a site plan provided in IOTA's 2005 report (2005:32), it does not relate the *Santa Margarita* site to a general map of Rota. It also does not include specific locations of artifacts and only includes general locations for previously excavated areas. In another example, methodology sections only discussed general techniques, including using certain equipment or tools for excavation, without describing logistics of the operations. Because of this, the salvage projects' exact activities and impacts on the site are unknown. In addition, while there were artifact counts from IOTA's projects, there was limited information on artifact measurements. On the other hand, PSR and Proa contained artifact counts and measurements. In PSR's 1987 report, however, they only provide a short interpretation that *Santa Margarita* remains laid underneath heavy coral. On the contrary, PSR's 1990 report on *Concepción* provided a three-page discussion on the site formation processes of the shipwreck

based on evidence they recovered. Finally, in at least three of IOTA's reports, the conclusions were often the same: that the survey area contained *Santa Margarita* remains, and that artifacts found during the season were more frequent, better preserved and more intact. HPO criticized IOTA's 2004 report, stating that it was copied and pasted from the 2001 season with minor changes and that it failed to provide specific information about the site (Cabrera and Joseph 2005). As a result, IOTA provided little insight into *Santa Margarita*. While the reports may include some information to meet categories, they preserve very limited data about the shipwreck, its SFP, and the impacts of the salvage projects.

While the salvage companies did report on their projects, aside from PSR, they did not widely disseminate their project information and results. Most reports, some in draft form, were only available at HPO. In addition, IOTA purposefully limited media coverage to prevent others from knowing about the site (Gourley 1996b). There was only one academic article published on *Santa Margarita*, which was Trusted's (2013) article on the ivory artifacts. On the other hand, PSR widely broadcasted their project in their publications or through media coverage to garner interest in buying artifacts. Aside from Trusted's (2013) article, no other reports or publications on the salvage projects have been published in academic journals, possibly due to ethical violations. Moreover, the salvage projects did not actively participate in public outreach or education. Rankin educated some locals about illegal artifact collection and PSR talked with locals about their project during a 4-day publicity event, but IOTA did not interact with the public about their project. Ultimately, it appears that the salvage companies' focus was to build financial interest in their project, rather than highlight and preserve historical or cultural value of the shipwrecks. As a result, there is limited information from the salvage company projects preserved for the general public or academia.

## ESRI Story Map Application

A Story Map entitled [“Manila Galleons in the Commonwealth of the Northern Mariana Islands”](#) was created in order to share and preserve information regarding the Manila galleon trade, *Santa Margarita* and *Concepción*, and the Spanish colonization in the Marianas in the 17th century (FIGURE 5.8). Since the goal is for the Story Map to act as a knowledge base that preserves historical information, the Story Map shares information from the history and results sections of this thesis as separated by tabs. The Story Map contains narrative text, images, maps, and links in order to increase engagement and allow user interaction.

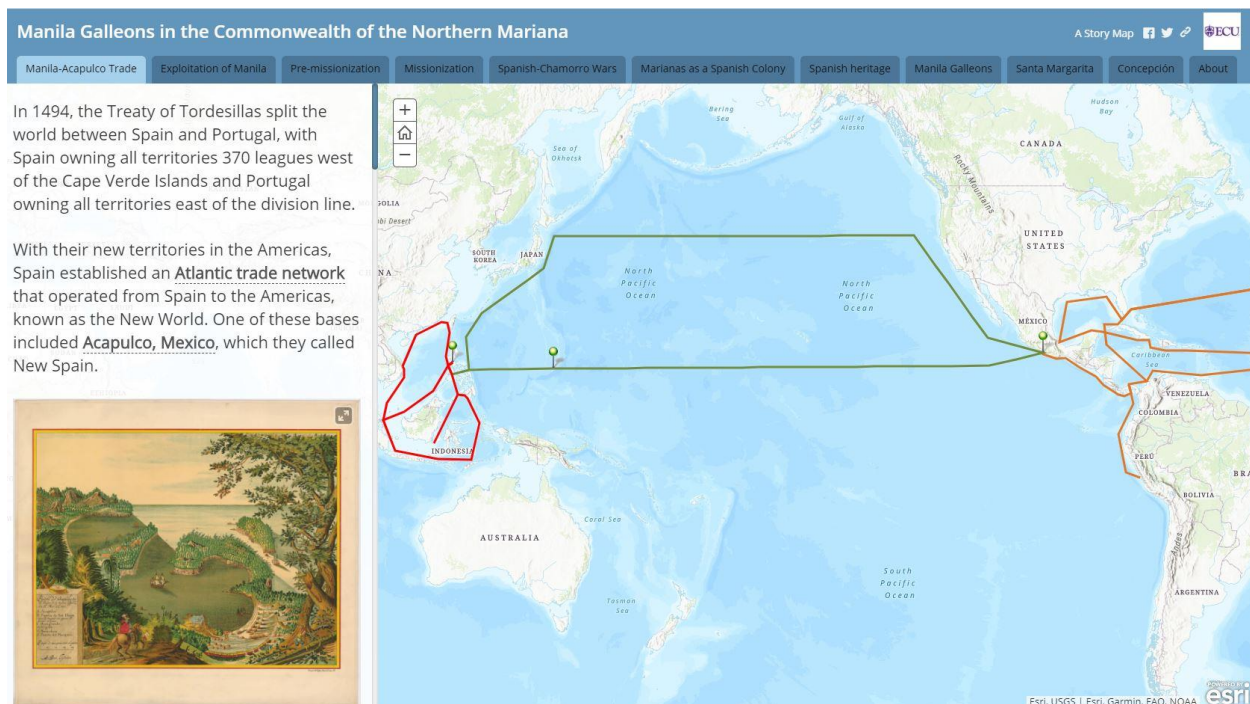


FIGURE 5.8. Main page of the Story Map entitled “Manila Galleons in the Commonwealth of the Northern Mariana Islands.” The first tab covers the establishment of Spain’s Manila-Acapulco galleon trade network (Image by author, 2019).

The first two topics cover Spain’s establishment of the Manila galleon trade network as aided by their exploitation of Manila in order to understand the historical background of galleons such as *Santa Margarita* and *Concepción* (FIGURE 5.8; FIGURE 5.9). These tabs include information and images related to Spain’s Atlantic trade network, their entrance into Asian and

Southeast Asian regional trade networks, and their manipulation of Indigenous peoples and resources in the Philippines in order to show Spain’s global status and power in the 17th century as they built a trade network which connected Asia, the Americas, and Europe. These tabs also contain maps that display the routes of Legazpi and Urdaneta’s first successful Manila-Acapulco expedition, the Manila-Acapulco galleon trade, Atlantic trade network, and Asian and Southeast Asian trade networks.

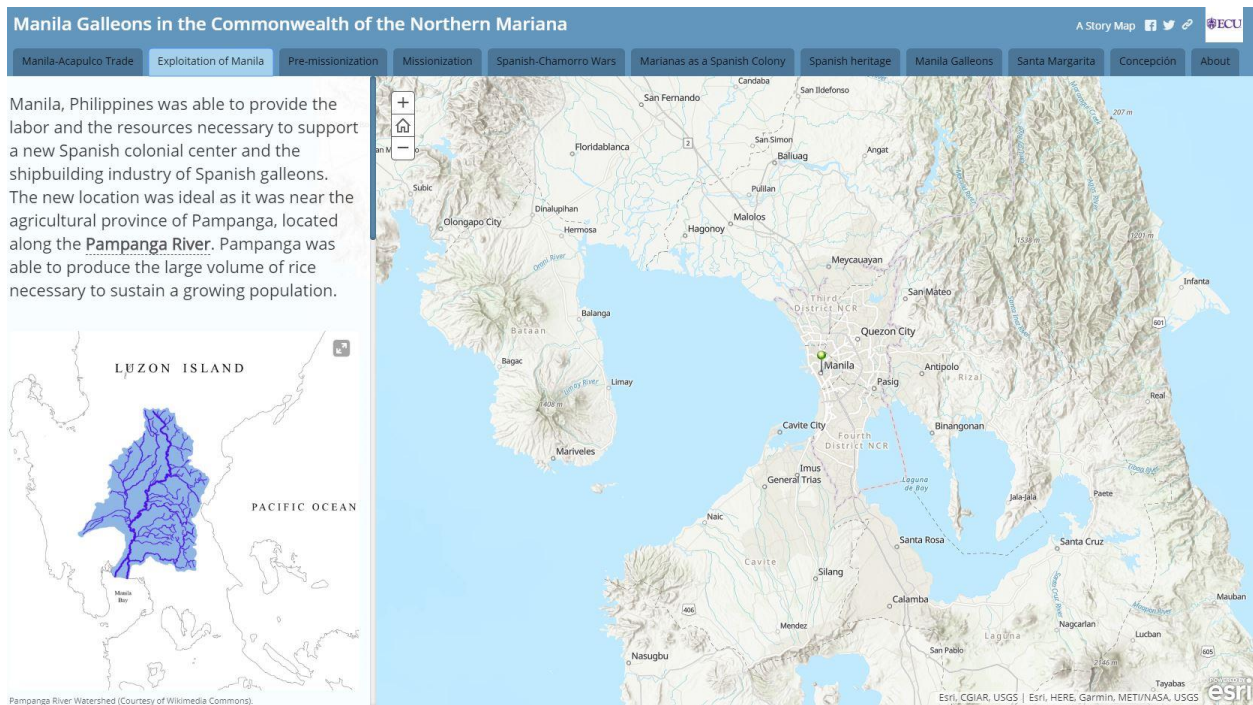


FIGURE 5.9. Section which covers the exploitation of Indigenous peoples and resources in Manila (Image by author, 2020).

The next four tabs discuss pre-Spanish missionization, the missionization process, Spanish-Chamorro Wars, and Marianas as a Spanish colony. One tab educates readers about early Spanish-Chamorro exchanges before Spanish colonization, while the next tab discusses San Vitores’ missionization and facilitation of Spanish colonization. These interactions drastically transformed Chamorro people. As shared in the next tab, Chamorro people resisted the missionization during the Spanish-Chamorro Wars, however, they were ultimately unsuccessful

at driving out the Spanish (FIGURE 5.10). Consequently, the islands were then used as a colony and provisioning point for Spanish Manila galleons. These tabs provide information on how Spain used the Marianas to their advantage during the 17th century.

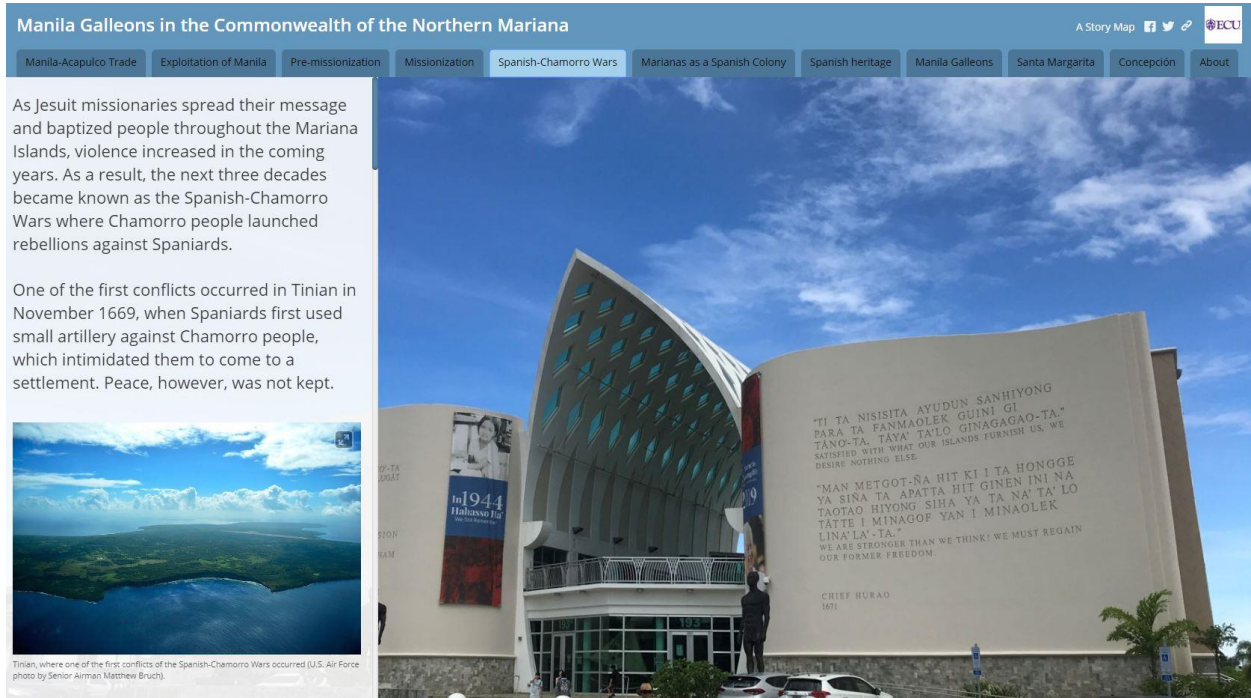


FIGURE 5.10. Section on Spanish-Chamorro Wars (Image by author, 2020).

As a result of their colonization, Spain influenced and changed the Marianas culture. To show Spanish influence and shared Spanish heritage in the CNMI, the section on Spanish heritage was created (FIGURE 5.11). This section displays information related to Spanish heritage sites in Saipan, Tinian, and Rota using pins on an interactive map. Examples of sites include *latte* sites, settlements, missions, a church, and sites with ceramics, stoneware sherds, porcelain sherds, or iron artifacts. Each pin provides more information about the Spanish-related remains. While the map shares information on Spanish-related remains, the locations of the sites remain confidential due to the sensitivity of publicizing site locations.

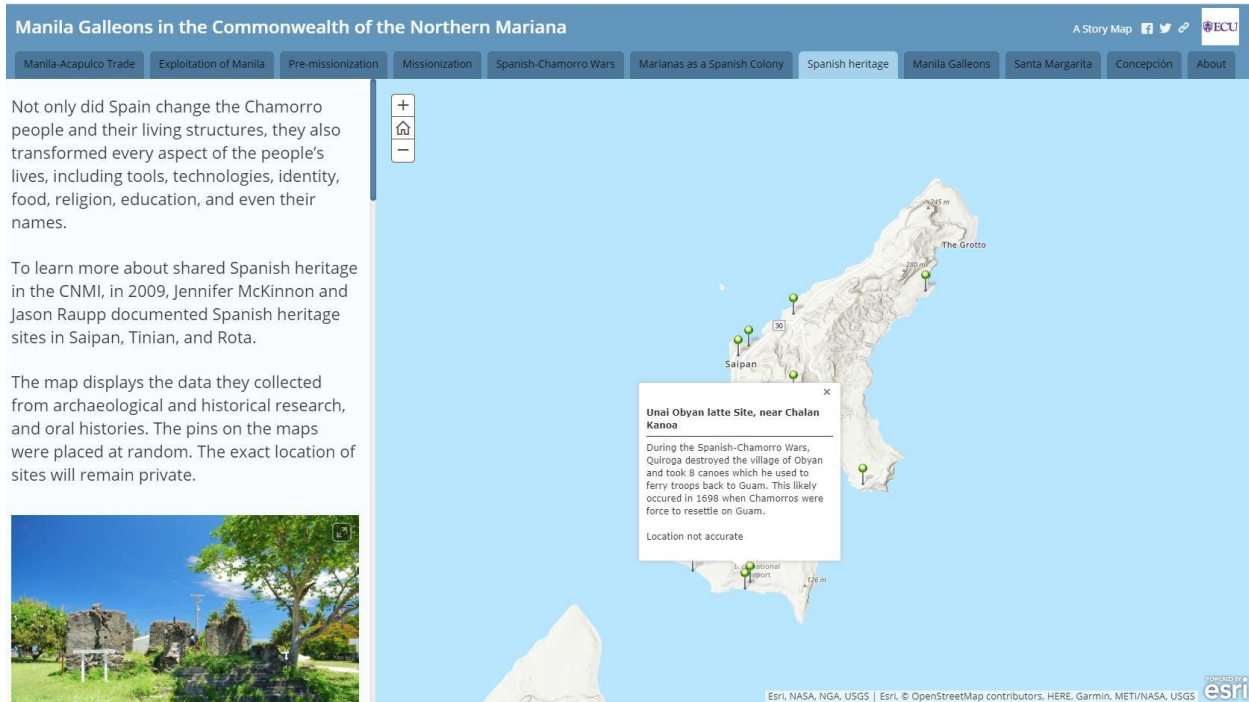


FIGURE 5.11. Spanish heritage sites (Image by author, 2020).

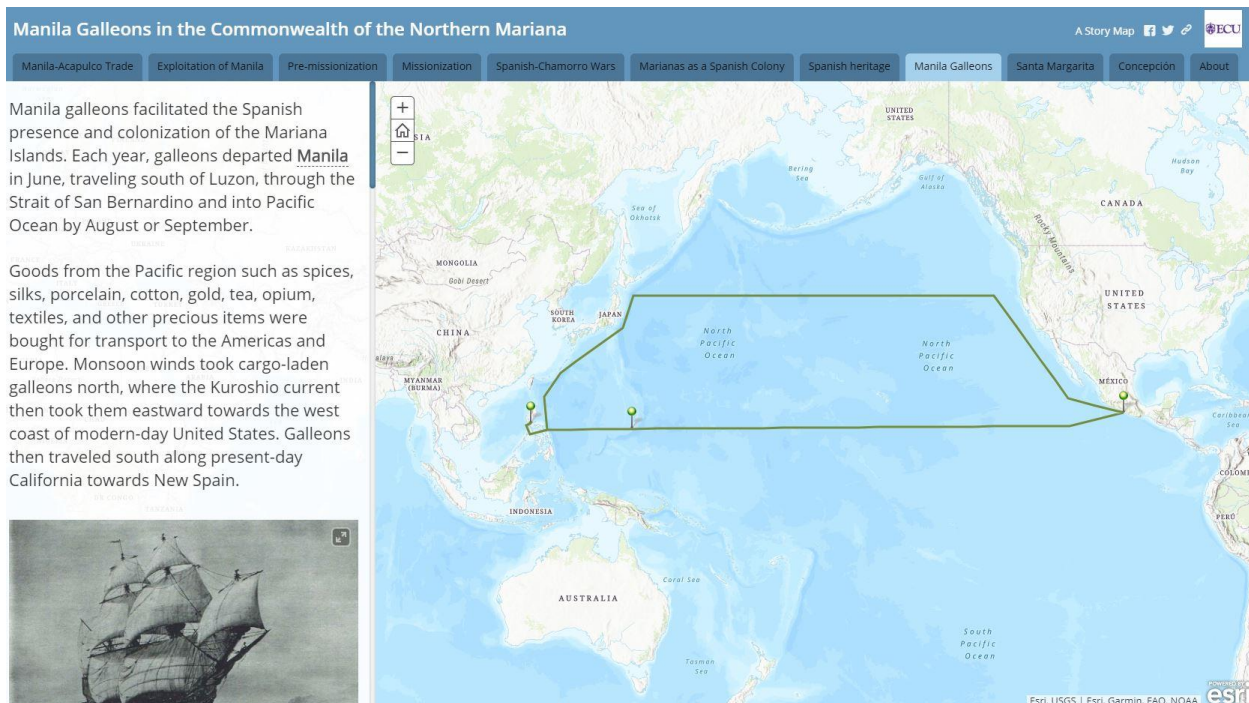


FIGURE 5.12. Section on Manila galleons (Image by author, 2020).

With the Mariana Islands colonized, Manila galleons were able to stop and obtain provisions from the islands during their return voyages to the Philippines. This tab covers Manila

galleons' voyages across the Pacific, cargoes and passengers, and the galleons' role in the 17th century global trade network (FIGURE 5.12).

With dangerous Pacific voyages, there were many losses. The tabs on *Santa Margarita* and *Concepción* share information regarding pre-wrecking, wrecking, and post-wrecking events, including possible causes of their shipwrecks, approximate routes of their final journeys, and contemporary and treasure salvage activities at the shipwreck sites (FIGURE 5.13). Because there is limited knowledge and oral histories about *Santa Margarita* and *Concepción* today, the Story Map preserves archival and historical information on the shipwrecks. In addition, because treasure salvage publications on *Santa Margarita* and *Concepción* are not easily accessible to the public or academic audience, the Story Map provides readers access to information on *Santa Margarita* and *Concepción* from this thesis. The goal is for the general public to engage with their shared Spanish heritage.

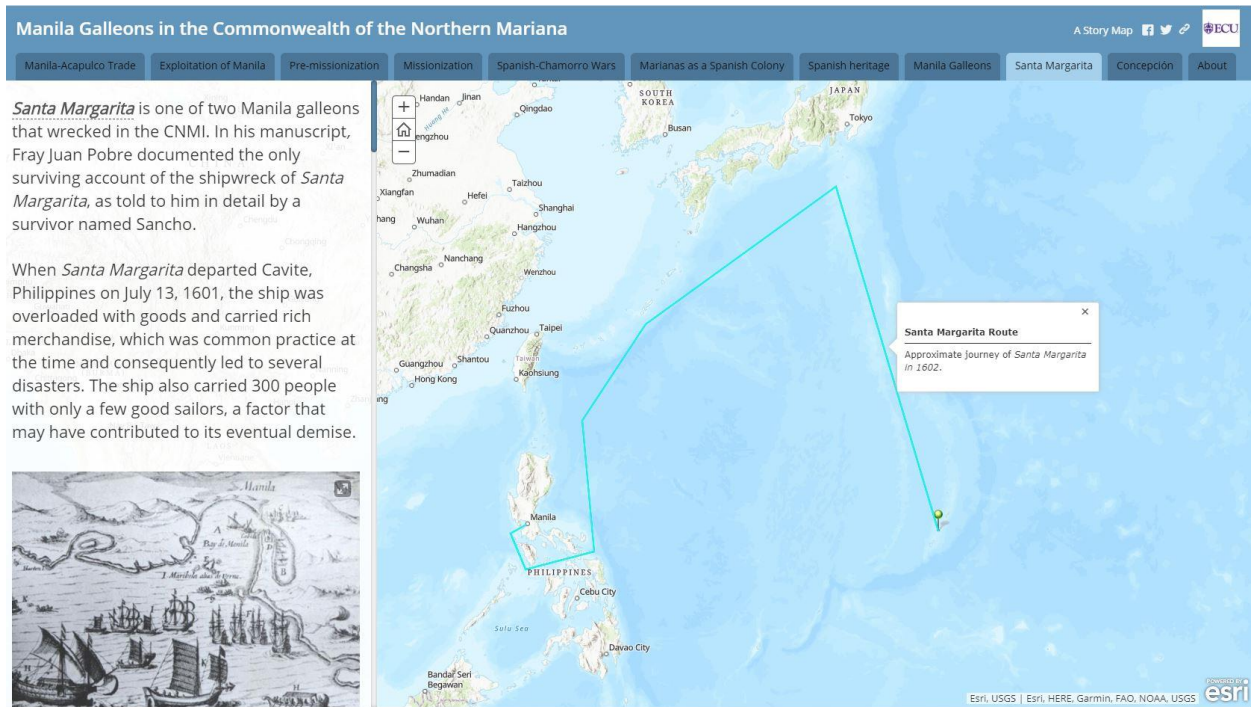


FIGURE 5.13. Section on *Santa Margarita* (Image by author, 2020).



Overall, the Story Map conveys historical information from this thesis in an easily accessible and interactive platform for readers to gain knowledge about Spain's Manila-Acapulco galleon trade network and Spanish colonization in the Marianas in the 17th century. Learning about these two topics allows readers to understand the historical background and influence of *Santa Margarita* and *Concepción* on the CNMI.

### *Conclusion*

In summary, *Santa Margarita* and *Concepción* both experienced opportunistic and systematic salvage. After the ships wrecked, Chamorro people and the Spanish recovered artifacts such as artillery, gold, and iron for reuse. Almost 350 years later, modern treasure salvors and locals participated in salvage of the shipwrecks' remains. While treasure salvors advertised that their recovery operations were archaeological, their activities fail to meet ethical principles set by professional archaeological associations. Moreover, their reports do not meet standard archaeological categories or do not present thorough information in categories. The salvage companies' bias toward commercial exploitation of artifacts and lack of archaeological information greatly limit the information available regarding the shipwrecks. In an effort to increase access to shared heritage and information related to *Santa Margarita* and *Concepción*, an ESRI Story Map was published.

## Chapter 6 Conclusion

### *Introduction*

Previous chapters provided comprehensive background information, theoretical frameworks, and methodologies. The information obtained helps to identify and analyze the cultural impacts and post-wrecking activities related to *Santa Margarita* and *Concepción*. Based on the collected data, this final chapter answers research questions, discusses limitations, and suggests recommendations for future research.

### *Answering the Research Questions*

The thesis had two main goals: to understand the role of *Santa Margarita* and *Concepción* in the Manila-Acapulco galleon trade network and the Spanish colonization during the 17<sup>th</sup> century, and to identify and analyze how post-wrecking activities on the two shipwrecks have impacted our knowledge of them, and the overall Manila-Acapulco galleon network and the Spanish colonization in the Marianas.

SFP and ANT studies were applied to thoroughly study the ships' histories and post-wrecking activities, as well as to examine the salvage activities' impacts on the knowledge on the two shipwrecks. With the help of SFP and ANT frameworks, cultural impacts and activities were identified and carefully examined from pre-wrecking to well beyond post-wrecking, including factors that contributed to the ships' demise, and historic and modern interactions with the shipwreck sites. Based on Roth's (2018:140) diagram, a similar figure depicting the actor networks of cultural impacts and post-wrecking activities on the two shipwrecks was created (FIGURE 6.1).

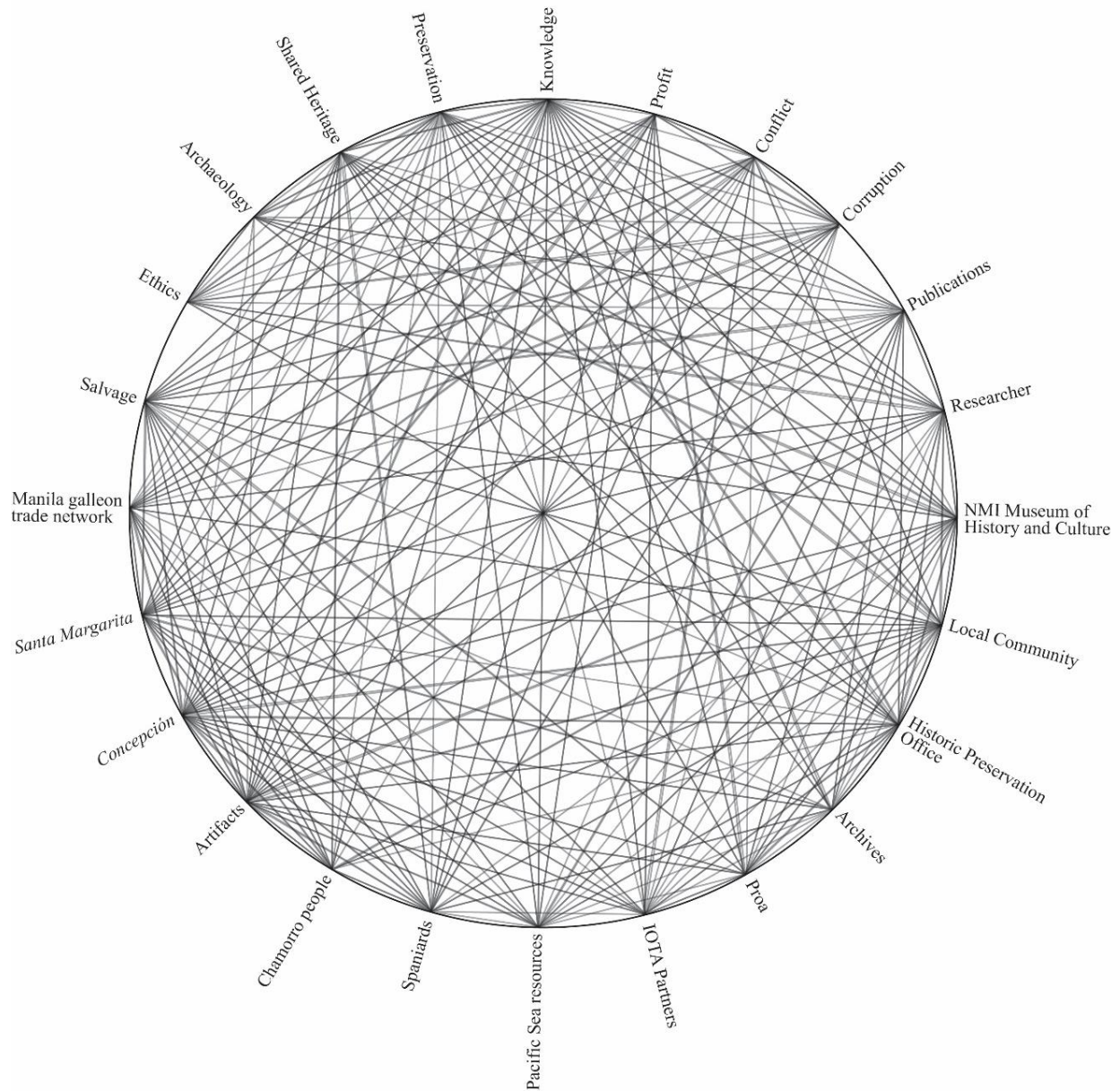


FIGURE 6.1. Actor networks related to *Santa Margarita and Concepción* (Image by author, 2020).

First, each actor was chosen based on their relationship or activity in transforming other actors. The Manila-Acapulco galleon trade network, *Santa Margarita*, *Concepción*, and the ship's artifacts or remains, were considered the first major actors because they are main foci of study for this thesis. The thesis examines how these four major actors are impacted by other actors through time. In historic times, the three actors of corruption, conflict, and profit impacted

pre-wrecking and post-wrecking events. Immediately after the wrecking events, Chamorro people and Spaniards were the first actors that transformed the shipwrecks by salvaging artifacts. In modern times, locals as well as salvage companies such as PSR, IOTA, and Proa also influenced the sites. This thesis explores the archaeology, ethics, and salvage activities of the actors who conducted contemporary and treasure salvage. Today, archives, HPO, local community members, NMI Museum, the researcher, and publications impact the shared heritage, and distribution and preservation of knowledge regarding the two shipwrecks and the Manila-Acapulco galleon trade network. In modern times, the three non-human actors of corruption, conflict, and profit continue to impact post-wrecking events.

In summary, the actors listed in the diagram transform or influence other actors to “do things,” which then create traceable networks for the researcher to follow (Latour 2005:107-108; Dolwick 2009:37;39). The ANT diagram shows the interconnected relationships, or networks, between actors involved. With the help of this diagram and theoretical frameworks, there is a better understanding of each actors’ influence on other actors, including the shipwreck sites, in order to answer the research questions.

How do *Santa Margarita* and *Nuestra Señora de la Concepción* represent the status of the Manila-Acapulco galleon trade network and the Spanish empire in the 17th century?

The thesis research and analysis conducted provide insights regarding *Santa Margarita* and *Concepción*. Examining the two shipwrecks provide evidence of the status of Spain’s global trade during the early 17th century. Namely, the shipwrecks reveal illicit activities during the early days of the Manila galleon trade network, and the changing relationships between the Spaniards and the Chamorro people during their early interactions.

First, the shipwrecks show the extent of the corruption that permeated the Manila-Acapulco galleon trade network in the beginning. Both *Santa Margarita* and *Concepción* may have been a part of illicit trade activities and were overloaded with rich cargo to minimize time, effort, and costs of the transit, as was common practice in the early 17th century. This practice played a significant role in their wrecking, as overweighting and restricted movement greatly hindered the ships. Because there is limited historical information regarding the ships' registers and cargoes, the salvage projects conducted on the shipwrecks reveal the main types of goods that were carried. The identified and recovered artifacts reveal proof that there was an overwhelming amount of commercially valuable material including gold, jewelry, and porcelain which may have belonged to officials but passed off as personal property to avoid taxes. The illicit trade activities and corruption may also have played a role in who commanded and sailed the ships. For example, *Santa Margarita* carried 300 people and yet only had a few good sailors. It is possible that Spanish merchants were attempting to make as much profit from *Santa Margarita* as possible, by bypassing much needed sailors to guide the ship and instead taking on more passengers. In the case of *Concepción*, Corcuera chose his inexperienced nephew as general of the ship. This proved to be a mistake as the young general could not properly command the ship, leading the crew to mutiny and to its eventual shipwreck. While illicit trade activities may have led to the wrecking events, it did not mean that the Spanish empire had an unlimited amount of wealth and materials. After the shipwrecks, the Spanish salvaged remains for later use in the Marianas and the Philippines. Spanish officials and treasurers also expressed concern over dwindling profits and increasing illicit trade, as it prevented them from obtaining taxes to replace the expenses of galleons.

Similarly, while the Spaniards utilized the Manila galleons to their advantage, be it for illicit trade or for missionization purposes, the Chamorro people also took advantage of the resources provided by galleons. For example, they collected items such as iron and nails, and transformed them into tools such as hooks and oil lamps. In one specific example, Choco used iron hoops from *Concepción* to make knives and axes. After *Santa Margarita* wrecked, the Chamorro people also traded survivors for iron. In short, the shipwrecks provided resources and tools that Chamorro people used for their benefit.

Finally, the shipwrecks reveal information regarding the relationships between the Chamorro people and the Spaniards in the 17th century. First, relationships were tense in the beginning. There was a lack of clear understanding of Marianas' cultural exchanges on the part of the Spaniards from the late 16th century into the beginning of the 17th century, which led to disagreements and animosity between the two groups thereafter. For example, when Magellan arrived in Guam in 1521, Chamorro people provided goods and then collected items from their galleons. The Spaniards viewed this as robbery, and therefore retaliated by killing many Chamorro people, and burning down their houses and canoes. As a result, subsequent interactions between the Chamorro people and Spaniards were tense and cautious. The shipwreck event of *Santa Margarita* provides a good example of the misunderstanding of Chamorro cultural exchanges and untrustworthy relationships during the early Spanish colonial period. When Chamorro people provided much needed provisions to *Santa Margarita* and collected goods from the galleon in exchange, Spaniards interpreted their activities as stealing. When Spaniards asked for the Chamorro people's help, they also harmed and threatened the Chamorro people at the same time. In turn, Chamorro people did not respond kindly. More specifically, the Chamorro people killed the malicious, sick, and dying. Instead of assisting the

survivors, the Chamorro people only treated them as currency in exchange of iron. On the contrary, when *Concepción* wrecked in Saipan in 1638, it appears relations between Chamorro people and the Spaniards improved to some degree. Chamorro people still salvaged scattered cargo from *Concepción* and killed some people but were more willing to help. For example, Chiefs Quipuha and Taga assisted survivors by providing them with *proas* and guides so they could return to Manila. Some survivors even chose to remain in the islands instead of returning, eventually marrying Chamorro people and integrating into the Marianas culture. Between the shipwreck events of *Santa Margarita* and *Concepción*, it appears that relations began to improve somewhat between Spaniards and the Chamorro people. With the Spanish missionization process and the Spanish-Chamorro Wars in the late 17th century though, tensions between the two groups only escalated.

What cultural activities and impacts have shaped the sites as they are today? What are the post-wrecking activities on these two sites?

With the help of SFP and ANT theoretical frameworks and diagrams, cultural activities and impacts on the sites were easily identified. In addition to the corruption and conflict impacting the sites as previously discussed, research revealed that post-wrecking opportunistic and systematic salvage activities occurred on the two shipwreck sites. These salvage activities acted as extracting filters that removed materials from the site. Upon their wrecking events, Chamorro people and Spaniards salvaged items for reuse. In the late 20th century, commercial salvage companies conducted surveys and excavations of the two shipwrecks for profit, which invalidated their operations and publications. This is because based on the textual analysis conducted, their biased activities did not conform to archaeological standards or ethical principles. More recently, local communities still interact with the shipwreck sites and their

remains. For example, in Rota, people deposit fish refuse in the site to attract sharks and prevent people from accessing the shipwreck. At Agingan beach, locals still collect washed up remains from *Concepción*. From fieldwork, it appears that the NMI Museum and Saipan residents may also purposefully withhold information regarding *Concepción*. For example, one local beachcomber admitted to having artifacts, yet did not respond to inquiries to view the artifacts. To sum up, cultural impacts or actors on the shipwrecks span a range of wide range of time and include a variety of salvage interactions.

How have these post-wrecking activities and cultural impacts affected site formation processes and our knowledge of the sites and the Spanish trade empire in the 17th century?

Networks traced between actors in the ANT diagram allowed a better understanding of the cultural actors' impacts on SFP and our knowledge of the shipwreck sites and the Spanish colonial period in the 17th century by clearly depicting each actor's influences upon other actors. First, in the early 17th century, the goal was to maximize personal profits. As a result, corruption and illicit trade activities led to the galleons being overloaded with rich cargoes that did not contribute to the Spanish empire. To hide contraband, *Concepción* was led by an inexperienced and young general. In another issue, *Santa Margarita* also did not have a sufficient number of experienced sailors and instead carried more passengers. According to ANT, corruption then would be considered an actor that led to the overloading and demise of the ships. Based on Gibbs' (2006) theoretical framework, these cultural activities during the pre-impact stage then contributed to the inevitable shipwrecks of *Santa Margarita* and *Concepción*, which in turn, now provide material remains of Manila galleons from the early 17th century.

Immediately after both shipwrecks, opportunistic and systematic salvage by Chamorro people and Spaniards reveal that they recovered items for reuse. During the impact stage,



Chamorro people and Spaniards recovered items such as iron and artillery from *Santa Margarita* and *Concepción*. Their cultural activities may have been out of necessity as materials were limited at the time. According to ANT then, Chamorro and Spanish peoples acted as stakeholders interested in certain resources that they could repurpose.

This thesis research also analyzed commercial salvage operations acting as extracting filters or actors that remove select materials from a site without archaeological methods or ethical principles, which presents many pressing issues related to lack of preservation and loss of archaeological information. For example, the treasure salvors' bias towards commercial exploitation dictated their recoveries and publications. As per ANT, profit then would be considered an actor that shaped the shipwreck sites. IOTA purposefully targeted commercially valuable goods instead of non-commercially valuable items. Their desire for maximizing profits was extreme to the point of committing illegal activities such as constructing a concrete platform that not only destroyed the reef environment but also impacted the shipwreck site. Similarly, PSR viewed *Concepción* gold and porcelain as treasures and advertised them to the public as such. Moreover, the treasure salvors did not often have qualified archaeologists leading or conducting operations. Proa did not even have experience in archaeology. IOTA had qualified archaeologists on paper, yet they were not the ones leading the excavations. Finally, it was uncertain if PSR employed qualified archaeologists. Untrained and unqualified archaeologists mean archaeological frameworks or methods may not have been followed, resulting in compromised recoveries. In addition, there is limited information relating to the conservation and management of recovered artifacts from both *Santa Margarita* and *Concepción*, therefore as the artifacts age and disintegrate without proper conservation and management, there is a continual loss of data. Furthermore, as of today, not all artifacts previously recovered from *Santa*

*Margarita* and *Concepción* are accounted for, meaning there is no complete inventory for the artifacts collected from these two shipwrecks.

The loss of data from unethical and non-archaeological salvage operations is compounded by insufficient publications. These publications may be considered actors that preserve, or do not preserve, information about the shipwreck sites. The commercial salvors prioritized profit and commercial intent above preservation of archaeological information. PSR dedicated 366 pages out of the 533-page report to jewelry and porcelain, and only 27 pages on other artifacts. Because commercial salvors such as IOTA and PSR did not pay particular attention to artifacts such as ship construction materials, personal effects, and provisions, there is the loss of data about the galleons, people onboard, and the not-so-glamorous side of the Manila galleon trade network. In a second example, the lack of sufficient maps in Proa's and IOTA's salvage publications contributes to limited knowledge about where artifacts were collected or where surveys or excavations were conducted. In another example, while PSR had references for their historical information, IOTA's *Santa Margarita* reports did not have sources listed for maps, historical photos, or information, therefore making it difficult to analyze their credibility and track down where they obtained the information. In a fourth example, IOTA had insufficient and vague discussions on methodologies and conclusions for at least three reports. Consequently then, there is limited data regarding the logistics of operations and the recovered material during those field seasons. Because these salvage operations have irreversibly disrupted the sites and did not properly record their methodologies and results, it would be difficult to build a comprehensive and valid SFP study on the two shipwreck sites.

At the same time, however, these modern salvage operations provided material evidence of the two shipwrecks. Because the ships were a part of illicit trade activities, there were no

registers or comprehensive lists of the cargo and goods carried on board. With their excavations, the commercial salvage operations reveal the extent of the wealth and corruption of Spaniards in the early 17th century. Without these salvage operations, little would be known about *Santa Margarita* and *Concepción*'s material remains and their SFP. To address issues related to limited shared data about the two shipwrecks, a Story Map was created by the researcher to preserve and share information.

Finally, today, local communities or actors restrict the spread of information regarding the two shipwrecks. In Rota, locals prevent others from accessing the site by attracting sharks to the area. In Saipan, locals withhold information about *Concepción* artifacts but also want to access the sites for themselves. For example, Rankin from Proa originally started his artifact recovery project due to his interests in preserving the *Concepción* shipwreck site. Also, previous local teachers collected artifacts from the *Concepción* shipwreck site. Today, beachcombers still collect artifacts that wash up on Agingan beach. In addition, while the NMI Museum of History and Culture displays some *Concepción* artifacts, not all artifacts were on display and their artifact catalog was not accessible. In other words, while the NMI Museum does disseminate some knowledge about *Concepción* and locals treat the shipwreck as part of their cultural heritage, they also actively safeguard the two shipwrecks and artifact collections and limit access to knowledge about them. It may be possible that locals view the shipwrecks and collections as their responsibilities or resources to interact with themselves but protect from outsiders. In short, locals act as caretakers of their shared heritage who may provide or restrict access to the shipwreck sites and the artifact collections.

### *Limitations and Suggestions for Future Research*

As stated in the beginning, there were some limitations to this project. While environmental impacts exist, they were not considered. Cultural impacts were emphasized in this thesis, therefore, there is still possible future research to examine environmental impacts on the two shipwreck sites. In addition, similar to the treasure salvors exercising their biases towards commercial exploitation and non-archaeological work, it is likely that the researcher exercised bias against unethical and non-archaeological work of treasure salvors during analysis. Regardless, the researcher attempted to remain objective throughout the textual analysis by examining salvage publications and work using quantitative methods.

This thesis may be improved by a multitude of ideas for the future. For example, there are some avenues of research to pursue regarding Manila galleons in general. First, further research may expand to include other Manila galleons as additional cases to supplement the analysis of salvage projects conducted on galleons. Examining other galleons may also share more archaeological information regarding the rise and fall of the Manila-Acapulco galleon trade network through the centuries. Moreover, researchers may further explore the National Archives of the Philippines or other archives in the Philippines for materials regarding the Spanish colonial period in the Pacific and the Manila-Acapulco galleon trade network. The National Archives houses one of the main collections of Spanish documents, and yet is underutilized by researchers. It is possible that there are documents on these topics that have not been accessed previously. Having Spanish reading skills would also immensely ease difficulties experienced during historical or archival research. To include more Indigenous perspectives, researchers may also consider collecting oral histories from the Philippines regarding Manila galleons.

Furthermore, there is more to learn about the Manila galleon shipwrecks in the CNMI. To obtain more information regarding the shipwrecks, it is possible to improve relations first with CNMI residents. During the research, there were instances where informants may have withheld information. For future visits, researchers may focus on building trust first with locals, which may then lead to more information about the shipwrecks. Another possible research topic is to conduct artifact analysis of the *Concepción* collection at the NMI Museum of History and Culture. Due to limitations, this thesis did not include analysis of *Concepción* artifacts at the NMI Museum. Nevertheless, an archaeological analysis of the artifacts may reveal quantifiable data about possible selection biases associated with their recovery, as well as about the time period and status of the Manila galleons at the time. Ultimately, the most ideal option for the future is to conduct archaeological surveys or excavations of *Santa Margarita* and *Concepción*. While there may not be large structural remains left at either site, there may still be some smaller artifacts left. This undertaking, however, may require advanced diving and methodologies due to the challenging and deeper environments. Archaeological projects and artifact analysis may share more conclusions regarding other topics such as personal effects and ship construction.

### *Conclusion*

To conclude, this thesis research provided additional information regarding *Santa Margarita*, *Concepción*, Manila-Acapulco galleon trade network, and the Spanish empire during the 17th century. Based on research, it appears cultural impacts and post-wrecking activities both provide and limit the knowledge available from the shipwreck sites. Before the shipwreck events, corruption as a cultural factor resulted in galleons overloaded with goods, and therefore led to their demise. Today, as a result of post-wrecking activities, researchers have knowledge

relating to Spain's illicit trade activities and material remains during the early 17th century. Immediately after the shipwrecks, opportunistic and systematic salvage share that Chamorro and Spanish people repurposed materials such as iron, gold, survivors, and artillery. These activities reveal the resourcefulness and desire to reuse materials in historic times. More recently, modern treasure salvors removed items without systematically following ethical principles and archaeological standards, therefore also removed archaeological data and context of materials at both sites. Despite their biases and insufficient publications, commercial salvage operations reveal remains and information that researchers otherwise would not have had access to. Furthermore, locals and the NMI Museum then act as stakeholders or caretakers of their own cultural resources when they engage with artifacts and influence how the shipwrecks and their remains are studied today. Like previous projects that explore the CNMI's shared heritage, this thesis research proves that locals maintain control of their shared Spanish heritage by regulating remains, knowledge, and narratives related to the two shipwrecks.

Ideally in the future, archaeologists working in collaboration with local and Indigenous communities should return to the sites to properly preserve surviving information using archaeological methods. Otherwise, information on *Santa Margarita* and *Concepción* would be limited to archival documents and non-ethical and non-archaeological projects and publications. For now, a collection of historical, archaeological, and archival data on *Santa Margarita* and *Concepción* is preserved in a free, online ESRI Story Map to preserve information for the future.

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